REGION 8
DENVER, CO 80202

August 29, 2024

Ref: 8EJC-NE

James Statezny, District Ranger
Yampa Ranger District
Medicine Bow-Routt National Forest and Thunder Basin National Grassland
300 Roselawn Avenue
P.O. Box 7
Yampa, Colorado 80483

Dear District Ranger Statezny:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Forest Service's July 2024 Draft Environmental Assessment (EA) for the South Routt Fuels Reduction Project (64833) on approximately 10,482 acres in the Yampa Ranger District of the Medicine Bow-Routt National Forest and Thunder Basin National Grassland. A portion of the project area is located on the Arapahoe National Forest, which is also administered and managed by the Yampa Ranger District. In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), we are providing comments on the Draft EA.

The Project will take place in Colorado, approximately three miles northeast of Yampa in Routt County and seven miles west of Kremmling in Grand County. The Project seeks to reduce fuels to improve public and firefighter safety, protect key infrastructure, and improve forest health and resilience. Methods of treatment include mechanized equipment, hand tools, and prescribed fire. In addition to vegetation management, the proposed action includes approximately 22 miles of road reconstruction, no more than 26 miles of temporary road construction, and the replacement of 5 culverts.

Based on preliminary information, our initial areas of interest for the Project include: (1) specificity of design features; (2) long-term project success and the development of a monitoring plan for design features; (3) air quality; (4) water resources; (5) climate-related impacts and greenhouse gas emissions; (6) environmental justice; and (7) biological resources.

The EPA appreciates the opportunity to provide comments at this stage of the NEPA process. The enclosed comments are intended to facilitate the decision-making process. Thank you for considering our input. If further explanation of our comments is desired, please contact me at (303) 312-6155 or mccoy.melissa@epa.gov, or Greyson Abid, lead reviewer for this project, at (303) 312-6425 or abid.greyson@epa.gov.

Sincerely,

MELISSA MCCOY

Digitally signed by MELISSA MCCOY
Date: 2024.08.29 16:08:30 -06'00'

Melissa W. McCoy, Ph.D., J.D.
NEPA Branch Manager
Environmental Justice, Community Health, and Environmental Review Division

Enclosure

Enclosure – EPA's Draft EA Comments on the South Routt Fuels Reduction Project

General Comments

Design Feature Specificity

The EPA appreciates that the USFS has included an extensive list of design features for the project.[1] Some of the design features proposed would benefit from increased specificity. For example, Aquatic Design Feature 5 states that a USFS hydrologist or aquatic biologist would evaluate water influence zones in the project area to determine if mechanical equipment would be restricted.[2] Similarly, Wildlife Design Feature 10 does not describe the suitability thresholds for federally threatened and endangered species and regional forester's sensitive species, and so it is not clear, for example, whether clear cutting would be prohibited in areas where these species or suitable habitat are identified.[3] Instead, the decision relies on site-specific recommendations by a USFS biologist at a later time in compliance with applicable requirements and guidance, after the NEPA process has concluded. More generally, rather than carrying out site-specific analyses under NEPA prior to making site-specific decisions, the USFS is planning to manage the project implementation by applying design features, best management practices (BMPs), and mitigation after it develops site-specific treatment plans. We support the use of BMPs, design features, and mitigation measures; however, we have recommendations for a more complete impacts analysis under NEPA.

To address the concern with deferring decisions on protective measures until after the NEPA process, we recommend revising the Project's Integrated Design Features (Appendix A) to provide the public with a concrete understanding of what specific protections would be offered considering site-specific conditions. If the USFS determines that flexibility regarding the implementation of design features is necessary due to uncertainty regarding site-specific conditions at the time of implementation, additional detail can still be incorporated into the Final EA through a discussion of the range of possible management actions that would be triggered depending on site-specific conditions. The range of possible management actions under consideration should be disclosed and evaluated in the Final EA, even if there is uncertainty regarding which, if any, management activities will eventually be implemented. For example, Aquatic Design Feature 5 could specify the hydrological conditions that would trigger restrictions for mechanical equipment and discuss the extent of restrictions that would be implemented. Likewise, for Wildlife Design Feature 10, we recommend discussing what constitutes

[1] Draft EA, Appendix A, Integrated Design Features.

[2] "The Forest Service hydrologist or aquatic biologist would evaluate WIZs [water influence zones] within treatment areas prior to implementation to determine if mechanical equipment use would be restricted and identified as exclusion zones. Exclusion zones would be identified on implementation maps. Vegetation and groundcover impact from mechanical equipment use in the WIZ would be minimized. A no-mechanical-equipment buffer of at least 10 feet would occur along channels (except at designated crossings). Mechanical equipment would enter/exit perpendicular to the channel and minimize turning to reduce subsequent soil disturbance and erosion. Operation plans, including crossings, would be coordinated with and approved by Forest Service aquatic biologists or hydrologist." *See* Draft EA, Page 112.

[3] "Potentially suitable habitat for federally threatened and endangered and Regional Forester's Sensitive Species within the project area, and within 1/2 mile, would be surveyed to the accepted protocols prior to implementation. If such species are detected, protections would be implemented as recommended by a Forest Service Biologist, in compliance with the applicable requirements and guidance, such as Recovery Plans and the Forest Plan, which would include temporal restrictions during breeding seasons and requirements to maintain species habitats within suitability thresholds (Compliance with Migratory Bird Treaty Act of 1918)." *See* Draft EA, Page 122.

a suitability threshold for each species that could be present and why the thresholds are effective at preventing significant impacts to the species in the project area. The Project's Aquatic Design Feature 8 provides an example of adequate design feature specificity despite site-specific uncertainties, in this case, uncertainty regarding the presence of fens in the project area.[4]

Project Timeline

The EPA recommends including additional details concerning the project timeline and milestones to help the public understand the timing and magnitude of impacts from the proposed action. Temporal information can provide a greater understanding of the extent of short-term impacts stemming from project activities, such as the noise, vehicle traffic, human presence, and smoke from prescribed burning.

Long-term Project Success and the Development of a Monitoring Plan for Design Features

The EPA suggests that the USFS consider the likelihood of long-term project success. The Draft EA notes that tree mortality from insects and disease events, such as the widespread mountain pine beetle outbreak in the project area, have led to an increase in surface fuel loads in the project area.[5] One literature review finds "that there is significant uncertainty about whether the most commonly used beetle timber harvest treatments are, indeed, effective [as a means of beetle suppression]."[6] If timber harvests do not lead to short-term reductions in tree mortality or long-term beetle suppression, the proposed treatments may not be a resilient form of fire risk reduction in the project area, as surface fuel loads may continue to increase due to pine beetle mortality even after the proposed treatments. We note climate change can further diminish the effectiveness of the proposed treatments. Given this uncertainty and the potential unintended ecological impacts of the proposed actions, such as the spread of invasive species, the EPA recommends that the USFS consider the success of any previous management actions that are similar to the proposed action and monitor the effectiveness of the proposed timber harvests in the project area. The latter is especially important, as the monitoring of the outcomes of timber harvest treatments is rare, leading to uncertainty regarding their effectiveness.[7] If the goal of the proposed timber harvests is not to reduce the likelihood of future beetle outbreaks but simply to reduce current surface fuel loads, we recommend clarifying this in the Final EA.

In addition to effectiveness monitoring for the proposed timber harvests, we also recommend developing a plan for monitoring the effectiveness and implementation of the project's design features. In the case of implementation monitoring, the plan could provide an opportunity (e.g., 6 months after project implementation) to ensure that the proposed design features have all been enacted. In the case of effectiveness monitoring, the plan could provide a timeline for a specialist to determine whether initial protections, such as specified buffer distances or mechanical equipment

[4] "If fens occur within the project area, treatments would not occur in fens. In addition, fens would be protected by a 200-foot buffer as follows: No activity would be allowed within the first 100 feet of the fen; between 100 and 200 feet of the fen, mechanical activity would be allowed, but there would be no landings, slash piles, burning (prescribed or pile), or temporary roads constructed within this area." *See* Draft EA, Page 113.

[5] Draft EA, page 60.

[6] https://www.mdpi.com/1999-4907/5/1/103

[7] https://www.mdpi.com/1999-4907/5/1/103

restrictions in certain areas, are sufficient. In addition to targets that specify a desired future condition, the monitoring plan should include environmental thresholds with protocols to assess whether specific thresholds are being met for each impacted resource. We recommend developing a list of management options to address situations where monitoring does not indicate progress toward desired conditions or indicates unanticipated adverse effects on resources. For additional information on monitoring, we recommend consulting our prior scoping letter for the South Routt Fuels Reduction Project.

Air Quality

Existing Air Quality Conditions

The EPA appreciates inclusion of air quality index data (AQI) from the surrounding area. To provide a more complete characterization, we recommend providing the existing air quality baseline for criteria pollutants and air quality related values (AQRVs), including visibility and resources sensitive to deposition. This information makes it possible to meaningfully evaluate the Project's potential air quality impacts in relation to existing conditions and determine what measures may be needed to mitigate significant impacts. For criteria pollutants, we recommend coordinating with the Colorado Department of Public Health & Environment (CDPHE) to establish representative design values (background pollutant concentrations) based on the most recent monitoring data representative of the project area. Data are also available from EPA at the design values webpage.[8] Monitoring locations and data can be accessed through EPA's outdoor air monitor webpage,[9] and through the EPA's Air Quality System (AQS) for AQS users.[10]

We also recommend characterizing trends in visibility in Class I areas, such as the Flat Tops Wilderness, Mount Zirkel Wilderness, Eagles Nest Wilderness, Rawah Wilderness, and Rocky Mountain National Park, and adjacent sensitive receptors, including wildland urban interface (WUI) communities. Data are available through the IMPROVE monitoring network and information prepared by the Federal Land Managers (FLMs). We suggest working with CDPHE and the FLMs regarding existing AQRVs in the areas they manage. Information is also available online at:

- http://vista.cira.colostate.edu/Improve;
- https://www.nps.gov/subjects/air/park-conditions-trends.htm; and
- https://www.fs.usda.gov/air/technical/class_1/alpha.php

Existing deposition may be characterized by utilizing the National Atmospheric Deposition Program (NADP) monitoring network in conjunction with total deposition (TDep)[11] estimates and information available from the FLMs and websites bulleted above. Areas that may be relevant include but are not limited to the Class I areas listed above. An example of the type of information we recommend including in the analysis is provided below for Rocky Mountain National Park for nitrogen deposition:

> Wet nitrogen deposition levels create poor condition for ecosystem health at Rocky Mountain NP. This is based on the 5-year average (2017–2021) estimated 1.1 to 4.1 kilograms per hectare

[8] https://www.epa.gov/air-trends/air-quality-design-values
[9] https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality-monitors
[10] https://www.epa.gov/aqs
[11] https://nadp.slh.wisc.edu/committees/tdep/

per year (kg/ha/yr) range of wet nitrogen deposition compared to NPS nitrogen deposition benchmarks. To maintain the highest level of protection, the maximum of this range (4.1 kg/ha/yr) is used. Ecosystems in the park were rated as having very high sensitivity to nitrogen-enrichment effects relative to all Inventory & Monitoring parks (Sullivan et al. 2016a; Sullivan et al. 2016b). Nitrogen-enrichment effects may include disruption of soil nutrient cycling and reduced biodiversity of some plant communities, including alpine, arid, and grassland plants at the park.[12]

Air Quality Impacts

To understand the Project's air quality effects, the EPA recommends that the Final EA estimate the emission-generating activities and potential air quality impacts on both annual and action-based timeframes. To accomplish this, we recommend estimating the acreage to be treated per year (and per action for the action-based timeframe), the amounts and types of material to be treated, the method of treatment, and the types of emissions-generating equipment and activity needed. For pile burning, we recommend estimating pile size, the number of piles burned per acre, and the number of piles burned per day and per year. For the additional activities of road reconstruction, temporary road construction, and culvert replacement, we recommend estimating the number of hours of equipment use and type of equipment needed for the repair of each culvert, reconstruction of each mile of road, and construction of each mile of temporary road. Emission factors may then be used to estimate emissions from planned activities. Based on this information, we recommend preparing an emission inventory to inform a discussion of the pollutants generated from the proposed activities. With this emission inventory, the Final EA can discuss the direct, indirect, and cumulative impacts associated with the proposed action to air quality. By disclosing how activities may affect air quality, the USFS can identify measures to prevent potentially significant impacts, such as the implementation of design features and placing limits on how much activity and burning can occur in specific locations.

Pile Burning

The Draft EA states that prescribed burning would only be used to burn piles.[13] The USFS has included information in the Draft EA on the maximum expected number of burn piles per day, the recommended pile size by the Colorado Air Pollution Control Division, and the general effects of pile burning on air quality. In addition to our recommendations on the Air Quality Impacts analysis above, we recommend that the Final EA include a discussion of the burn plan process. In some circumstances it may be appropriate to utilize equipment such as air curtain destructors (ACDs) to reduce smoke generation and promote full combustion of slash material.

Water Resources

Existing Conditions

Given that the proposed actions have the potential to impact waterbodies within and downstream of the Project area, we recommend providing higher resolution maps with readable names of waterbodies or project shapefiles that allow the public to identify waterbodies more easily, including streams, tributaries, lakes, springs, seeps, and wetlands. These higher resolution maps or shapefiles

[12] https://www.nps.gov/subjects/air/park-conditions-trends.htm?tabName=summary&parkCode=ROMO&paramCode=Nitrogen%20Deposition&startYr=2009&endYr=2021&monitoringSite=CO98%20(NADP-NTN)&timePeriod=Summary; available from National Park Service's main page at: https://www.nps.gov/subjects/air/park-conditions-trends.htm.

[13] Draft EA, page 25.

should include a layer depicting proposed vegetation treatments, road development, culvert repair, and pile burning sites so that the public can easily discern the distance of proposed activities to waterbodies.

We appreciate that the USFS has included a list of Section 303(d) listed streams and the parameters leading to the impairment, and a discussion of and a table outlining watershed conditions. We recommend also including in the list the beneficial uses that are impaired for each waterbody. To provide the public with a more thorough understanding of existing water resource conditions, we recommend including a summary of the following or noting where such information is not available:

- Surface water information, including available water quality data in relation to current standards, stream functional assessments, stream channel and stream bank stability conditions, sediment loads, and aquatic life;
- Types, functions, conditions, and acreages of wetlands, riparian areas, springs, and seeps;
- A map of Clean Water Act impaired or threatened waterbody segments within or downstream of the Project area; and
- Maps depicting the location of sensitive groundwater resources such as sole source aquifers (available from EPA's Sole Source Aquifer website at https://www.epa.gov/dwssa), municipal watersheds, source water protection zones, sensitive aquifers, shallow aquifers, and recharge areas.

Potential Impacts to Waterbodies from Fuel Reduction Treatments

Proposed fuel reduction treatments may impact waterbodies within and downstream of the project area in a number of different ways, including but not limited to vegetation loss and accelerated soil loss; soil compaction; increased surface storm flow, erosion (including bank erosion), and loading of sediment and nutrients to receiving waters; stream incision and disconnection from riparian areas and floodplains, reduced stream base flows from decreased infiltration to groundwater; and changes in water temperature associated with shade loss or channel widening. We appreciate that the USFS has discussed many of these potential impacts in the Draft EA. For impacts to already impaired waterbodies, such as increased sedimentation to Bushy Creek, we recommend considering whether the project could exacerbate impairments. If impacts could be exacerbated, we recommend coordinating with CDPHE to determine appropriate protective measures. We also recommend discussing the status of impaired aquatic life in Bushy Creek, including macroinvertebrates, plants, and animals that live in the water.

Impacts from Road Reconstruction, Temporary Road Construction, and Stream Crossings

The Draft EA indicates that five road-stream crossings with failing culverts would be replaced by low water crossings or aquatic organism passage (AOP) structures.[14] Given that water crossings can result in potentially significant impacts to water quality (e.g., sedimentation) and from direct exposure to vehicle components, such as tires,[15] brakes,[16] and hydrocarbons, the EPA supports replacements using AOP structures. If low-water crossings are utilized, we recommend discussing the potential impacts that may result from direct exposure of water to vehicle components. We appreciate that the USFS has

[14] Draft EA, page 80.
[15] *See* https://www.sciencedirect.com/science/article/pii/S0048969724012920.
[16] *See* https://www.jstor.org/stable/26268813.

included maps depicting these stream crossing replacement sites. We recommend the Final EA include a higher resolution map showing project area waterbodies and identifying the existing road networks along with proposed stream crossing replacement sites, road reconstruction, temporary road construction, and culvert repair.

To reduce adverse impacts to watersheds, we recommend the Final EA discuss additional design criteria and BMPs to prevent negative effects to soil and water resources from road construction and reconstruction. We recommend the following measures to protect aquatic resources from road impacts:

- Locate roads away from streams and riparian areas;
- Locate roads away from steep slopes, landslide prone areas, and erosive soils;
- Use bottomless or textured bottom culverts if possible;
- Use design features to allow for natural drainage patterns; and
- Develop a monitoring plan and schedule to assess the effectiveness of road decommissioning after project completion.

Other Water-Related Impacts

We note that the Draft EA does not provide detailed or site-specific discussions of existing conditions and potential impacts to groundwater and wetlands, including fens. We recommend the Final EA provide high resolution maps of these waterbodies within and downstream of the Project area and discuss any potential impacts to these resources from the proposed actions. If impacts to wetlands are anticipated, we also recommend that the Final EA describe how the USFS intends "to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands" as described in Executive Order (EO) 11990, *Protection of Wetlands*. We appreciate the inclusion of aquatic design features applicable to fens and certain other wetlands areas, such as those near sensitive fish and amphibian habitats. When applicable, we recommend discussing whether buffers or heavy equipment restrictions would apply to all wetland areas and what specific mitigation measures, design features, or BMPs are in place to avoid impacts to groundwater in the Final EA. We also recommend explicitly noting if these resources are not present within or downstream of the Project area.

The Draft EA notes that "both the Bushy Creek and Morrison Creek CRAs are within a state defined source water assessment area (municipal water supply)."[17] While the Draft EA does mention that design features would avoid considerable impacts to sources of public drinking water, for greater clarity, we recommend discussing which specific design features are applicable and what protections they would offer.

Climate-Related Impacts and Greenhouse Gas (GHG) Emissions

To assist the public in understanding the climate-related impacts and greenhouse gas emissions from the proposed action and determining whether the risks of the proposed action outweigh its potential benefits, we recommend including a table of estimates of net GHG emissions and carbon stock changes that are anticipated to occur under each alternative. We recommend that this table include estimates

[17] Draft EA, page 130.

of GHG emissions from pile burning, road construction and reconstruction, and any additional transportation required for the Project.

The EPA appreciates that the USFS has already included parts of these estimates in the Draft EA, such as estimates of carbon emissions from pile burning and carbon changes due to timber harvest.[18] In addition to aggregating these estimates for a comparison of net GHG emissions and carbon stock changes under each alternative, we recommend providing the basis for how these estimates were calculated and discussing any assumptions upon which calculations relied. For example, the Draft EA states that "Single day CO_2 emissions from pile burning are estimated to be about 3,844 tons while total project emissions for CO_2 would be about 72,553 tons."[19] We recommend discussing the assumptions used to make this calculation, including the number of piles burned per day and pile size. For the estimates of transportation emissions, we recommend clarifying whether road construction and reconstruction was included as a part of the calculation.[20] Finally, in estimating carbon changes due to timber harvest, the Draft EA states that "The project is estimated to lose 431,330.46 Mg of carbon (with snag removal) and 363,662.69 Mg of carbon (without the snag removal)."[21] We recommend clarifying whether these estimates factor in the use of equipment, transportation, road construction and reconstruction, and other activities associated with the timber harvest.

In considering cumulative impacts relating to climate change and GHG emissions, the Draft EA makes a comparison between Project emissions and total Colorado transportation sector emissions, stating that:

> Transportation CO_2e emissions associated with implementing this project would be minor when compared to the 28.9 million metric tons of CO_2e associated with Colorado's transportation sector in 2021 (EIA 2023). The South Routt project fossil fuel emissions would equate to about 0.0018 percent of the total Colorado transportation sector CO_2e.[22]

The EPA recommends that the USFS follow the Council on Environmental Quality's (CEQ) *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*[23] and avoid relying on percentage comparisons between planning-level and regional, national, or global GHG emissions in the Final EA, as such comparisons can inappropriately minimize the significance of planning-level GHG emissions. All GHG emissions have incremental impacts that are important to consider and mitigate or avoid.

Impacts to Communities with Environmental Justice (EJ) Concerns

We appreciate that the USFS has conducted an environmental justice analysis using data from the US Census Bureau. We recommend supplementing this analysis using the EPA's EJScreen tool.[24] Using EJScreen, we found that the project area is in the 82nd percentile nationwide for the Wastewater Discharge EJ Index, which utilizes a combination of environmental and demographic indexes. For

[18] Draft EA, pages 51-53.
[19] Draft EA, page 53.
[20] Draft EA, page 53.
[21] Draft EA, page 52.
[22] Draft EA, page 54.
[23] https://ceq.doe.gov/guidance/ceq_guidance_nepa-ghg.html
[24] *See* https://www.epa.gov/ejscreen.

purposes of NEPA review, a project is considered to be in an area of potential EJ concern when the area shows one or more of the twelve EJ Indexes at or above the 80th percentile in the nation and/or state. Since wastewater discharge may impact surface water and groundwater quality along with drinking water supplies in the surrounding area,[25] we recommend discussing wastewater discharge and its potential to interact with water-related impacts from the proposed action.

The EPA appreciates that the USFS has flagged potential concerns among members of low-income communities in the surrounding area.[26] We recommend discussing the air quality, water quality, and any other impacts that may adversely and disproportionately affect the health of members of these communities. We also recommend ensuring that low-income and non-English speaking communities in the surrounding area are given advance notice of the potential impacts from the project, such as air quality impacts from pile burning. We also recommend incorporating their feedback into the NEPA decision-making process and selection of alternatives, and describing this in the Final EA.

The Draft EA notes that "there were questions if the communities of Yampa and Oak Creek may have populations of non-English speakers that would benefit from translation services as part of the project planning process."[27] The Draft EA also notes that translation services were determined to be unnecessary based on conversations with the Yampa Ranger District staff. We recommend explaining how this determination was reached and considering whether there are any non-English speakers who may be interested in the Project if translation services are provided.

Within the Draft EA's Environmental Justice section, we recommend correcting a misspelling of Cheyenne as "Cheyene."[28]

Biological Resources

Soils

The Draft EA notes that approximately 16 percent of the project area is on soils with a Natural Resources Conservation Service rating indicating poor suitability for the use of mechanical harvesting equipment.[29] This rating is based on slope, surface rock fragments, plasticity index, sand content, depth to water table and ponding potential. To provide a more accurate estimate of the likelihood that the proposed actions will result in erosion, sedimentation, compaction, ponding, and other soil-related impacts, we recommend discussing which treatment methods or development activities are being considered on these poorly suited soil areas, the miles of reconstructed and constructed roads crossing these areas, and whether any of these areas are in proximity to waterbodies, which may be negatively impacted by sedimentation and erosion. To the extent feasible, we also recommend considering treatment methods in these areas that do not require the use of heavy equipment, such as hand thinning.

The Draft EA also notes that "implementation [in areas with poorly suited soil] will require special design and extra maintenance and restoration will likely be required."[30] However, the Draft EA does

[25] *See* https://www.epa.gov/npdes/industrial-wastewater. *See also* https://www.epa.gov/npdes/municipal-wastewater.
[26] Draft EA, page 58.
[27] Draft EA, page 58.
[28] Draft EA, page 58.
[29] Draft EA, page 84.
[30] Draft EA, page 82.

not discuss what measures might be implemented. We recommend specifying these measures in the Final EA and committing to measures to minimize any soil-related impacts in these areas. We also recommend including an effectiveness and implementation monitoring plan to ensure that any incorporated measures are serving their intended function.

The EPA recommends that the Final EA document the prevalence of biological soil crusts (bio-crusts) within the project area, preferably in the form of a map. Given the ecological importance of bio-crusts, if any are present within the project area, the EPA recommends that the Final EA include design features and BMPs that would avoid all direct and indirect impacts to biological soils as they can take up to 250 years to regenerate depending on the species composition.[31] Due to this length of time, we also recommend that any impacts to bio-crusts be considered irreversible commitments of this important resource.

Canada Lynx

The EPA appreciates that the USFS has modified the proposed action to reduce potential impacts to the federally listed Canada lynx in light of public scoping comments.[32] Given that silvicultural treatments in an area can reduce Canada lynx usage for up to 10 years after treatment,[33] we recommend considering whether there are avenues for further minimization of potential impacts of fuel treatments in potential Canada lynx habitat, such as old growth stands and in areas within the Bushy Creek CRA which provides potential habitat for the lynx along with other sensitive species, such as the boreal toad, northern goshawk, and northern leopard frog. We also recommend estimating the acreage of potential Canada lynx habitat affected by noise from road development and increased vehicle use along temporary roads.

It appears that consultation with the United States Fish & Wildlife Service (USFWS) has occurred, but it is unclear based on the Draft EA when consultation took place, what conclusions were reached, and whether recommendations were made by the USFWS.[34] We recommend consulting with the USFWS at the earliest stage possible to adequately assess potential impacts to Canada lynx and to determine appropriate design features, mitigation, and BMPs, if such consultation has not occurred already. If consultation has occurred, we recommend summarizing, or including as an appendix in the Final EA, any biological assessment prepared by USFS after informal consultation or biological opinion prepared by USFWS after formal consultation. Finally, we recommend demonstrating that the proposed action is consistent with the biological assessment or opinion.

Other Listed and Sensitive Species

The EPA appreciates that the USFS discusses the potential impacts of the proposed action on various listed and sensitive species. To better understand the magnitude of these impacts, we recommend including tables that provide acreage of overlap between proposed treatment areas and listed and sensitive species habitat, similar to what is included in Table 45 for Canada lynx. This information may also inform the USFS and interested stakeholders in deciphering whether additional BMPs, design features, or mitigation measures may be warranted based on projected impacts.

[31] https://www.jstor.org/stable/41712760
[32] Draft EA, page 16.
[33] https://doi.org/10.1016/j.foreco.2018.04.018
[34] Draft EA, page 95.