



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

### REGION 8

1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone 800-227-8917  
[www.epa.gov/region08](http://www.epa.gov/region08)

**MAY 31 2018**

Ref: 8EPR-N

Scott Armentrout, Forest Supervisor  
Grand Mesa, Uncompahgre and Gunnison National Forests  
Attn: Plan Revision Team  
2250 South Main Street  
Delta, Colorado 81416

Dear Supervisor Armentrout:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Department of Agriculture Forest Service (USFS) April 3, 2018, notice of intent (NOI) to prepare an Environmental Impact Statement (EIS) for the Grand Mesa, Uncompahgre and Gunnison National Forests' (GMUG NFs') Land and Resource Management Plan (Forest Plan). In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), we are providing scoping comments for your consideration during the NEPA process. We encourage the USFS to address these comments in the Draft EIS, and we look forward to working with you to develop ideas for addressing them effectively and efficiently.

The USFS intends to replace the existing 1983 GMUG NFs' Forest Plan, as amended, and address the preliminary needs for change to the existing plan. The preliminary needs for change are identified to respond to new requirements per the 2012 USFS Planning Rule, address changes in economic, social, and ecological conditions, and use the best available scientific information. The proposed action is programmatic in nature and will guide forest management decisions for the next 10-15 years by determining forest-wide and geographic area desired conditions, goals, objectives, standards, and guidelines, as well as suitability of lands for specific multiple uses.

During the GMUG NFs' assessment phase of its forest planning process, the EPA provided comments in a June 27, 2017, letter regarding existing resource conditions. The EPA also provided comments on the draft Assessment Reports in a December 7, 2017 letter. There are several important topics associated with forest planning that we recommend for discussion in the Draft EIS, including:

- Baseline conditions of soils, watersheds, water quality, sediment loads, wetland and riparian health, vegetation cover (including pest and disease status and trends), wildlife and fish population/habitat health and trends, and air quality (as described in our June 27, 2017, letter);
- Resource objectives for the above resources;
- Range of alternatives for reaching the management objectives, and a discussion of the science supporting the ability of each alternative to meet the objective;
- Impacts on the baseline resource conditions that would likely result from management actions associated with each alternative and a comparative assessment of how each alternative will affect attainment of resource objectives;

- Best management practices (BMPs) for water quality protection; protection of riparian areas and wetlands; reduction of impacts from roads, trails and grazing; and maintenance and restoration of watershed health to achieve water quality that fully supports beneficial uses of surface waters in cooperation with State/EPA Total Maximum Daily Loads (TMDL) development and implementation efforts;
- Strong monitoring, mitigation, and if needed, adaptive management programs, in support of watershed analysis and evaluation of (BMP effectiveness and watershed restoration success; and
- BMPs and design criteria to reduce air quality impacts from forest management activities.

Based on preliminary information, our initial areas of interest for the Draft EIS focus on identifying potential impacts and mitigation measures related to (1) water resources, including wetlands; (2) air quality; (3) environmental justice; and (4) monitoring. We recommend that the Draft EIS discuss the direct, indirect and cumulative impacts associated with each alternative on environmental resources in a manner that will allow for the decision-maker to effectively plan to reduce potential impacts to such resources to the greatest extent possible while providing for the Forests' multiple uses. Our detailed recommendations are provided in the Enclosure for your consideration.

We appreciate your consideration of our comments at this early stage of the NEPA process. These comments are intended to help ensure a thorough assessment of potential environmental impacts, adequate public disclosure, and an informed decision-making process. If further explanation of our comments is desired, please contact me at (303) 312-6704, or your staff may wish to contact Ethan Aumann at (303) 312-6773 or [aumann.ethan@epa.gov](mailto:aumann.ethan@epa.gov).

Sincerely,



Philip S. Strobel  
Director, NEPA Compliance and Review Program  
Office of Ecosystems Protection and Remediation

Enclosure

cc: John Duggan, Colorado Department of Public Health and Environment (CDPHE)

## ENCLOSURE – Detailed Scoping Comments

### (1) Water Resources, Including Wetlands

Existing Conditions: During the GMUG NFs' assessment phase of its planning process, the EPA provided comments in a June 27, 2017, letter regarding existing resource conditions. Based on our review of the March 2018 *Revised Draft Forest Assessments for Watersheds, Water, and Soil Resources and Aquatic, Riparian, and Wetland Ecosystems and Supplemental Forest Plan Assessment: Groundwater* (Assessment Reports), it appears that insufficient data were available when developing these reports for some existing resource conditions. It is important that the Draft EIS include a comprehensive analysis of existing conditions in order to determine potential impacts of future USFS-authorized activities and inform management decisions. We note here the importance of revisiting any outstanding comments from our June 27, 2017 letter.

Groundwater: Groundwater is an important resource in the planning area since it provides domestic and public water supply and supports environmental flows and levels in groundwater dependent ecosystems (GDEs). In order to assist in planning Forest activities to avoid adverse impacts to this resource, we recommend that the Draft EIS identify the shallow aquifers, including bedrock and alluvial aquifers along streams and rivers, that are located in the planning area and are sources for public water systems, domestic wells, stock wells or GDEs. Shallow aquifers are more susceptible to contamination because there is less intervening soil to adsorb contaminants before they reach the groundwater. Shallow aquifers also commonly exchange flows with surface-water features, such as streams and lakes, and may supply groundwater to support wetlands and wildlife.

In addition, there is the potential that future projects may include oil and gas wells that pass through aquifers. Since projects will tier to the Forest Plan EIS, we also recommend including a map of other groundwater resources, including GDEs, and a discussion that includes the following information (if available): identification of major aquifers; location and extent of groundwater recharge areas; and location of existing and potential (i.e., those that can reasonably be used in the future) underground sources of drinking water (USDW).<sup>1</sup>

We understand that the USFS's National Groundwater Program is in the process of developing a nationwide bedrock hydrogeology layer, including major alluvial aquifers, that will allow a forest to create its own map. In the interim, individual forest requests can be directed to the National Groundwater Program staff (see internal USFS website at <https://ems-team.usda.gov/sites/fs-wfwarpgm/SitePages/Home.aspx>). The EPA recommends including such a map as part of the Draft EIS to inform the siting of management areas and future USFS-authorized activities in order to protect vulnerable resources.

If shallow aquifers are present and could be impacted by future USFS-authorized project activities, then we recommend that the Draft EIS include appropriate standards and guidelines to address siting of management areas and facilities to protect vulnerable resources. For example, latrines and fuel tanks

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<sup>1</sup> In general, this includes aquifers with a concentration of total dissolved solids (TDS) less than 10,000 mg/L and with a quantity of water sufficient to supply a public water system. Aquifers are presumed to be USDWs unless they have been specifically exempted or if they have been shown to fall outside the definition of USDW (e.g.,  $\geq 10,000$  mg/L TDS).

should be sited a minimum of 50 feet away from water wells. We also recommend that the USFS require best management practices (BMPs) such as: establishing proper equipment and vehicle fueling and maintenance practices; providing well-maintained toilets, including secondary containment pans under portable toilets where possible; inspecting vehicles, equipment and storage tanks regularly for leaks; and developing a spill plan. We note that several of the management measures and design criteria contained in the USFS's National Core BMP Technical Guide and the Watershed Conservation Practices Handbook may provide a co-benefit of protecting shallow aquifers.

Public Drinking Water Supply Sources: The Assessment Reports note that surface waters for the GMUG NFs are used for drinking water supplies. In order to ensure that public drinking water supply sources (e.g., surface water sources, including groundwater under the direct influence of surface water (GWUDISW) sources, and groundwater sources) are protected from potential impacts associated with USFS-authorized activities in the planning area, it is important to identify where these sources are located. Therefore, the EPA recommends that the Draft EIS include a map, appropriate for public dissemination, showing generalized locations of all source water assessment and protection areas associated with public drinking water supply wells and surface water intakes (streams, rivers, and reservoirs). Please contact the CDPHE Source Water Protection Program (SWPP) Coordinator John Duggan at (303) 692-3534 or john.duggan@state.co.us for more information regarding these resources in the planning area. Once these resources are identified, we recommend that the Draft EIS include an analysis of the potential impacts to drinking water sources from USFS-authorized activities in the planning area, as well as proposed standards and guidelines for protecting these high value drinking water resources.

Impaired Water Bodies: The Assessment Report (*Watersheds, Water, and Soil Resources*) lists the Clean Water Act (CWA) 303(d) listed streams on the GMUG NFs. We recommend that the Draft EIS include a map of these water bodies and that the USFS: (a) analyze potential impacts to impaired water bodies within and downstream of the planning area, including water bodies listed on the most recent EPA-approved CWA Section 303(d) list and (b) coordinate with CDPHE if there are identified potential impacts to impaired water bodies (in order to avoid causing or contributing to the exceedance of water quality standards). Where a TMDL exists for impaired waters in the area of potential impacts, pollutant loads should comply with the TMDL allocations for point and nonpoint sources. Where new loads or changes in the relationships between point and nonpoint source loads are created, we recommend that the USFS work with CDPHE to revise TMDL documents and develop new allocation scenarios that ensure attainment of water quality standards. Where TMDL analyses for impaired water bodies within, or downstream of, the planning area still need to be developed, we recommend that proposed activities in the drainages of CWA impaired or threatened water bodies be either carefully managed to prevent any worsening of the impairment or avoided altogether where such impacts cannot be prevented.

Wetlands: We recommend that the Draft EIS include a description of the impacts to wetlands and associated springs that may result from management activities. Such impacts may include functional conversion of wetlands (e.g., forested to shrub-scrub); changes to supporting wetland hydrology (e.g., snow melt patterns, sheet flow, and groundwater hydrology); and wetland disturbance. If impacts are anticipated, we also recommend that the Draft EIS 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, including how wetlands will be identified and avoided, and how unavoidable impacts would be mitigated.

Discharge of dredged or fill material into waters of the United States, including wetlands, is regulated under CWA Section 404. This permit program is administered jointly by the U.S. Army Corps of Engineers (Corps) and the EPA. For future USFS activities authorized under the Forest Plan, please consult with the Corps to determine the applicability of CWA Section 404 permit requirements to wetlands that would be impacted in the planning area and to ensure appropriate minimization measures are applied to avoid adverse impacts to wetlands.

We recommend avoiding impacts to aquatic resources that are considered “difficult to replace” under the EPA’s and the Corps’ Final Rule for Mitigation for Losses of Aquatic Resources [33 CFR Parts 325 and 332; 40 CFR Part 230 (73 FR 19594, April 10, 2008)]. The rule emphasizes the need to avoid and minimize impacts to these “difficult-to-replace” resources and requires that any compensation be provided by in-kind preservation, rehabilitation, or enhancement to the extent practicable. We recommend restoration plans require that soil profiles and hydrology are re-established as much as possible to the original state. In addition, the EPA recommends the USFS consider the Mitigation Rule to protect aquatic resources even when a CWA Section 404 permit is not required.

To ensure that wetlands are protected to the greatest extent possible, it may be necessary to consider exclusion of certain activities, e.g., road construction and vegetation treatments, in management areas where wetlands or riparian areas would be adversely impacted. We support the use of BMPs and adaptive management strategies to protect sensitive soils, wetlands including fens, riparian areas, meadows, stream crossings, and critical habitat. Riparian habitat buffer zones can prevent adverse impacts to streams and riparian areas. The EPA recommends the Forest Plan include standards and guidelines to protect these valuable resources.

Soil Disturbance and Vegetation Changes: The potential environmental impacts of future USFS-authorized activities on the forest may stem from vegetation loss, accelerated soil loss, bank erosion, soil compaction, increased surface storm flow, reduced stream base flows from decreased infiltration to groundwater, and changes in water temperature associated with shade loss or channel widening. Based on the USFS’s experience with the types of activities that may occur in the proposed management areas, we recommend the Draft EIS include a discussion of each alternative’s potential impacts and benefits to aquatic resources that may stem from impacts to water quality, stream and wetland processes, and fish populations and habitat.

Roads and Trails: The Forest Plan’s proposed management areas will determine where future USFS-authorized activities occur and could include construction, reconstruction, or improvement projects for roads and trails as well as road and trail maintenance activities. We recommend that the Draft EIS include a map showing planning area waters and identifying the existing road and trail network as well as a discussion of foreseeable construction, reconstruction, and maintenance activities by management area alternative. We recommend that the Draft EIS summarize past and ongoing related activities such as road decommissioning and culvert upgrades. We also recommend that the Draft EIS discuss BMPs that will be required at the project level to prevent negative effects to soil and water resources.

For your consideration, we provide the EPA's general recommendations 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; minimize the number of road stream crossings; construct unavoidable road stream crossings during periods of low flow to avoid fish spawning and incubation periods, or dewater relevant stream segments prior to construction; provide adequate road drainage and erosion control to avoid routing sediment to streams; use bottomless or textured bottom culverts if



possible; design roads to allow for natural drainage patterns; and consider road decommissioning or rehabilitation at an equal or greater rate than new road construction to prevent increases in overall watershed impacts. We note that several of these measures are contained in the USFS's National Core BMP Technical Guide and the Watershed Conservation Practices Handbook.

Livestock Grazing: Grazing management and practices have the potential to impact soil and water resources through vegetation loss, accelerated soil loss, bank erosion, soil compaction, increased surface storm flow, reduced stream base flows from decreased infiltration to groundwater, and changes in water temperature associated with shade loss or channel widening. Based on the USFS's experience with grazing in the planning area, we recommend the Draft EIS include an assessment of each alternative's potential impacts and benefits to aquatic resources that may stem from grazing impacts to water quality, stream and wetland processes, and fish populations and habitat.

We recommend that the Forest Plan include standards and guidelines to protect vulnerable resources from potential grazing impacts. We support the development of BMPs to be utilized and refined during future site-specific analyses, including adaptive management and mitigation and monitoring measures to reduce the potential for aquatic resource impacts. Inspection, maintenance and adjustment of BMPs will help protect groundwater and surface water resources. We recommend that the Draft EIS include a list of potential mitigation measures that may be required in future site-specific analyses. Such measures may include special buffer zones for high quality riparian and wetland resources (e.g., springs and fens) and management to limit deposition of animal waste in and adjacent to water bodies (e.g., protecting or repairing existing exclusions, providing upland water developments, and developing new range improvements to discourage congregation near water bodies).

Further, since range improvements (e.g., water developments, spring enclosures, fencing, and corrals) are generally designed and constructed in a manner that protects aquatic resources from adverse impacts associated with livestock grazing, we recommend the Draft EIS address how range improvements will be protected from impacts associated with future activities such as vegetation management, prescribed fire, recreation use and road construction that may be authorized under the Forest Plan.

Potential Impacts of Beetle Epidemic: The presence and handling of beetle-killed trees has the potential to impact public water supplies if it leads to organic loading of area waterbodies that are sources of drinking water. Organic matter interacts with disinfectants used in the drinking water treatment process to form disinfection byproducts, which are a human health concern. Organic loading may also decrease oxygen levels leading to the release of metals such as arsenic, manganese, and iron from sediments. For more information, see Mikkelsen, K et al. 2013, 'Bark beetle infestations affect water quality in the Rocky Mountains of North America' GWF Discussion Paper 1306, Global Water Forum, Canberra, Australia. We recommend the Draft EIS provide an assessment of the potential for organic loading impacts to drinking water supplies associated with these municipal watersheds.

## **(2) Air Quality**

The air quality analysis will be an important component of this Draft EIS given that the GMUG NFs are near towns, Clean Air Act (CAA) Class I Areas (e.g., West Elk Wilderness, Black Canyon of the Gunnison National Park) and Sensitive Class II Areas. In addition to the health-based National Ambient Air Quality Standards (NAAQS) that protect ambient air quality, the CAA provides Class I Areas with special protection for air quality and air quality related values (AQRVs), including visibility. Sensitive Class II Areas are areas for which Federal Land Managers have identified air quality and/or AQRVs as

valued resources. The EPA recommends that the Draft EIS disclose the current air quality conditions in and near the planning area. In addition, we recommend that the USFS evaluate how management area land use allocations contemplated in the planning area could affect air quality and what measures may be needed to mitigate significant impacts.

Existing Conditions: We note that the Assessment Report (*Air Quality*) addressed our recommendations related to existing air quality conditions. The information regarding current conditions will be an important tool for evaluating the impacts of the various project activities as part of the Forest Plan Draft EIS.

Vegetation Management and Timber Harvesting Activities: Air quality may be negatively impacted by emissions from heavy diesel equipment utilized for removal and thinning of trees, idling trucks used for transportation of wood products, and re-entrained dust generated from USFS-authorized activities. If proposed management areas will allow substantial vegetation management and harvesting activities over the planning horizon, then we recommend the Draft EIS include a qualitative discussion of air emissions that may result from foreseeable harvesting and thinning of trees and associated activities. Road dust control and limiting truck idling are among the measures available to manage localized impacts.

Prescribed Fire: Prescribed fire is a valuable tool that can have ecological benefits over other treatment techniques. Prescribed fire activity has the potential to cause periodic degradation of air quality and visibility. We realize the individual burn plans prepared for future prescribed fire activities would quantify expected emissions. We recommend that the Draft EIS provide an estimate of the foreseeable acreage to be proposed for prescribed fire management, as well as an estimate of predicted emissions (or at least a qualitative discussion of the types of pollutants expected to be generated) that may result from such burn-related treatments as well as the air quality benefits of reduced wildfire scope and intensity that may be provided through use of prescribed fire.

We support prescribed fire design criteria and monitoring requirements including: (1) incorporation of the Interagency Prescribed Fire Planning and Implementation Procedures Guide (April 2014) into the site-specific burn plans designed for each prescribed burn; and (2) public notification of pending burns. We also recommend that the USFS consult with the CDPHE for any modeling, mitigation, or other measures required under state regulations or the State Implementation Plan to address CAA requirements.

Oil and Gas Development: It is unclear from the NOI whether new oil and gas development will be addressed in the Forest Plan revision. The Assessment Report (*Renewable and Nonrenewable Energy Resources, Mineral Resources, and Geological Hazards Assessment*) references the Bureau of Land Management's (BLM's) 2006 reasonably foreseeable development (RFD) scenario developed for previous Forest Plan revision efforts and ongoing BLM resource management activities across the GMUG NFs, but notes that prior to lease offer, most areas would require an oil and gas leasing analysis. Without more detail on an estimated RFD, updated and specific to the GMUG NFs, it is difficult to identify the appropriate level of air quality analysis for the Draft EIS. The EPA recommends that an oil and gas leasing analysis be completed as part of this Forest Plan revision, or if it is to be completed through a separate EIS process, then that should be so noted in the Forest Plan Draft EIS. At the outset of the NEPA process that will include an oil and gas leasing analysis, the EPA would like to have discussions with the USFS regarding the air quality impact analyses and appropriate mitigation measures, consistent with the process described in the June 23, 2011,

National Memorandum of Understanding regarding air quality analyses and mitigation for federal oil and gas decisions through NEPA.

Regardless of which NEPA path is pursued to address oil and gas leasing, we recommend that the Draft EIS provide a discussion of any past or present oil and gas activity on the GMUG NFs, the status of existing leases, and the availability of the forest for leasing. If oil and gas leasing will not be addressed in this Forest Plan revision, then we recommend that the Draft EIS include discussion of the anticipated timeline for preparing an Oil and Gas Leasing Analysis EIS, as well as any oil and gas activities that could occur prior to completion of that EIS.

### **(3) Environmental Justice**

It appears that the GMUG NFs planning area may include minority or low-income populations. Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” applies to federal agencies that conduct activities that substantially affect human health or the environment. Consistent with this order, the EPA recommends the NEPA analysis for the Forest Plan include the information below. For more details, see “Promising Practices for EJ Methodologies in NEPA Reviews” at [https://www.epa.gov/sites/production/files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf).

- Identification of any minority, low-income and tribal communities within the geographic scope of the impact area, including the sources of data and a description of the methodology and criteria utilized. The EPA recommends comparing census block group percentages (if available, or, at a minimum, census tract data) for below poverty and minority populations with the state average or other appropriate reference population, and conducting the following steps outlined below if a block group percentage is greater than the state average. The EPA does not recommend use of higher thresholds.
- A detailed assessment of environmental justice and other socioeconomic concerns for any environmental justice communities, to the extent information is available, including:
  - A discussion of the potential direct, indirect and cumulative environmental impacts of management area decisions on the health of these communities, including air quality and water quality impacts;
  - An evaluation of the socio-economic impacts to the local communities, including the potential for any additional burdens placed on local communities’ abilities to provide necessary public services and amenities; and
  - A determination of whether there may be disproportionately high and adverse impacts, including cumulative impacts, on the identified communities.
- Mitigation measures to reduce any disproportionate adverse impacts. We recommend involving the affected communities in developing the measures. The EPA recognizes the need for early involvement of the local communities, and supports the meaningful participation of community representatives in the NEPA process.

### **(4) Monitoring**

The GMUG NFs’ March 2018 Report *Forest Plan Revision: Scoping* notes that the proposed action will include a monitoring plan that informs implementation of the adaptive management components of the



Forest Plan. The Assessment Report identifies monitoring needs related to several resource areas, e.g., air, soil, and water resources. We support these identified needs as the foundation of the USFS's monitoring plan. In addition, we recommend that the proposed monitoring plan include metrics to assess water quality data gaps in order to provide a baseline for future monitoring of impacts and evaluation of potential influence on downstream water quality. We also recommend monitoring the effectiveness of road closures, range improvements and revegetation in protecting aquatic resources. We support enhanced monitoring of resource conditions adjacent to high value water resources to ensure timely adjustment of BMPs and informed management decisions. Finally, we recommend the Forest Plan describe what actions would be taken to assure the Plan's resource protection objectives will be met if funding for the monitoring is not available.

### **Other Considerations**

Mineral Resources: Mining activities have the potential to impact air quality, water quality, groundwater, groundwater dependent ecosystems, and other ecosystem functions. According to the Assessment Report (*Renewable and Nonrenewable Energy Resources, Mineral Resources, and Geological Hazards Assessment*), there are significant mineral resources and mineral materials in portions of the planning area. We recommend that the Draft EIS summarize the processes that are underway to inventory historic mines for public safety hazards and environmental impacts, including water quality impairment, associated with the occurrence and extraction of these resources. We recommend the Draft EIS include standards and guidelines to minimize water quality impacts from future projects that may disturb mining waste and workings. We also recommend that the Draft EIS identify priority areas for remediation, if necessary.