

US EPA ARCHIVE DOCUMENT



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX**

**75 Hawthorne Street
San Francisco, CA 94105**

November 10, 2008

Bobbie A. DiMonte
Ecosystem Planning & Coordination
Shasta-Trinity National Forest
3644 Avtech Parkway
Redding, CA 96002

Subject: Draft Environmental Impact Statement (DEIS) for the Gemmill Thin Project, Shasta-Trinity National Forest, Trinity County, California (CEQ# 20080370)

Dear Ms. DiMonte:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

Actions are proposed on approximately 1,618 acres of Shasta-Trinity National Forest lands. Proposed actions include: (1) thinning from below in mixed conifer late-successional stands with associated post-harvest fuel reduction treatments, and (2) other fuel reduction activities in plantations, fuelbreaks, and fuel buffers. EPA recognizes the ecological significance and unique environmental issues of Shasta-Trinity National Forest. We acknowledge the importance of the project goals to reduce the risk of habitat loss due to wildfire and to promote the development of contiguous old growth habitat.

EPA supports the inclusion of resource protection measures and best management practices. While there are beneficial aspects of the proposed actions and DEIS, we have rated the document as Environmental Concerns – Insufficient Information (EC-2) (see enclosed “*Summary of Rating Definitions*”). This rating is due to the need for additional information on the criteria used for specific harvest prescriptions under each action alternative, air quality mitigation measures, and community impacts. We recommend the Final Environmental Impact Statement (FEIS) provide more specific information regarding these issues to ensure all relevant effects are considered. Our detailed comments are enclosed.

We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send one hard copy and one CD ROM to the address above (mail code: CED-2). If you have questions, please contact me at (415) 972-3521, or Jennifer Blonn, the lead reviewer for this project. Jennifer can be reached at (415) 947-4109 or blonn.jennifer@epa.gov.

Sincerely,

/S/

Kathleen M. Goforth, Manager
Environmental Review Office (CED-2)

Enclosures:
Summary of EPA Rating Definitions
Detailed Comments

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE GEMMILL THIN PROJECT, SHASTA-TRINITY NATIONAL FOREST, TRINITY COUNTY, CALIFORNIA, NOVEMBER 10, 2008

Clarification of Alternatives

Clarify size limitations for removing trees under Alternatives 1 and 3. Alternative 1 is the Preferred Alternative, Alternative 2 is the No-Action Alternative, and Alternative 3 limits the size of trees that can be harvested. Text on p. 14 reads, “In all treatment units, the largest and healthiest trees would be retained, and no trees more than 150 years old will be removed”. EPA appreciates the commitment to leave trees that are older than 150 years in age. It is unclear, however, what the threshold would be to determine which and how many trees would be classified as the “largest and healthiest”.

Tree size is measured by diameter-at-breast height (DBH). Under Alternative 1, “Few trees harvested would be greater than 18 inches DBH, however trees over this size may be removed when they are in direct competition with a larger tree. For road and landing activities, no trees greater than 24 inches DBH will be removed” (p.23). It is unclear if there are conditions under which a tree greater than 18 inches DBH would be removed when it is not in direct competition with at larger tree.

Recommendation:

- Clarify the DBH threshold that would be used to determine which and how many trees are classified as the “largest and healthiest”. Who will be responsible for making this determination? Commit to leaving a specific number of trees per acre or commit to leaving trees greater than a specific DBH in size.
- Under Alternative 1, clarify if there are conditions under which a tree that is greater than 18 inches DBH would be removed when it is not in direct competition with a larger tree. If such conditions exist, please list them.
- Under Alternative 3, the maximum size tree that can be harvested is set at 18 inches DBH. The Draft Environmental Impact Statement (DEIS) states that this size limitation would result in fire hazards significantly higher under Alternative 3 relative to Alternative 1 (p. 39 and p. 40). Provide further explanation of why 18 inches DBH, specifically, was selected versus other DBH sizes such as 20, 25 or 30 inches DBH.

Air Quality

Provide the attainment status for all National Ambient Air Quality Standards (NAAQS). State whether a general conformity determination is required. The DEIS states Trinity County was in attainment for PM₁₀ as of December 2007 (p. 96). The attainment status for other NAAQS is not provided. According to EPA’s Green Book, Trinity County and surrounding areas appear to be in attainment for all criteria air pollutants as of August 2008 (see <http://www.epa.gov/oar/oaqps/greenbk/mapnmpoll.html>).

Recommendation:

- Verify that Trinity County is in attainment for all NAAQS. Include findings in the Final Environmental Impact Statement (FEIS).
- Add language to the FEIS clarifying whether a conformity determination is required for any of the criteria air pollutants.
- Include the attainment status for the California Ambient Air Quality Standards.

Consider including air quality mitigation measures for vehicles and diesel-powered machinery. Construction-related emissions of nitrogen oxides (NO_x), a precursor for ozone, and PM₁₀ contribute to cumulative air quality impacts and should be minimized.

Recommendation:

Include guidance on mitigation measures for project impacts to air quality for vehicle and machinery operations. In addition to meeting all applicable local, state, and federal requirements, we recommend the FEIS include an appendix listing mitigation measures to consider for operation of vehicles and machinery. Possible measures to include are:

Mobile and Stationary Source Controls:

- Minimize use, trips, and unnecessary idling of heavy equipment.
- Use the most recent pollution control equipment for all off-road equipment.
- Utilize cleanest available fuel engines in construction equipment and identify opportunities for electrification. Use ultra low sulfur fuel (diesel with 15 parts per million or less) in engines where alternative fuels such as biodiesel and natural gas are not possible.
- Distribute material hauling and disposal to minimize haulage miles.
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels and, if engines have been modified, to perform at verified standards applicable to retrofit technologies.
- Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, only Tier 2 or newer engines should be employed in the construction phase.
- Utilize EPA-registered particulate traps and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.

Administrative controls:

- Identify all commitments to reduce construction emissions.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. Suitability of control devices is based on (1) whether there may be significant damage caused to the construction equipment engine, and (2) or whether there may be a significant risk to nearby workers or the public.

Community Impacts

Describe project effects on community cohesion, economic stability, mobility, and ease of access to public facilities. Text on p. 141 states, “This section analyzes community cohesion, economic stability, mobility, and ease of access to public facilities associated with the Gemmill Thin Project”. The section proceeds to provide community information and demographic data, however, project impacts on the community do not appear to be included.

Text on p. 143 states that “...minority and low-income populations must not be disproportionately adversely affected by transportation or other such projects. In addition and in light of the fact that Trinity County has an aging population, the effect of the project on individuals over 65 will be analyzed”. Pages 144 and 145 provide information on population age, income, and available community resources. The DEIS does not appear to analyze potential cumulative environmental impacts from the project on minority, low-income, or elderly populations in the Project Area, which is defined on p. iii as 4,790 acres of the Chanchellula Late-Successional Reserve.

Recommendation:

- Include projected impacts from implementing the Gemmill Thin Project on community cohesion, economic stability, mobility, and ease of access to public facilities.
- State whether minority, low-income, and elderly populations will be disproportionately adversely affected by the project. Include a list of potential disproportionate impacts, if any, and mitigation measures to avoid and minimize these impacts.

Cumulative Effects of Climate Change

Discuss climate change and its effects on the proposed actions. A number of studies specific to California have indicated the potential for significant environmental impacts as a result of changing temperatures and precipitation.¹ The discussion of cumulative effects in the DEIS does not appear to address the effects of climate change on the Project Area.

The Government Accountability Office recently released a report entitled, “Climate Change: Agencies Should Develop Guidance for Addressing the Effects on Federal Land

¹ For example: Our Changing Climate: Assessing the Risks to California, A Summary Report from the California Climate Change Center, July 2006; Climate Change and California Water Resources, Brandt, Alf W.; committee on Water, Parks & Wildlife, California State Assembly, March 2007.

and Water Resources” (August 2007). According to the GAO report, federal land and water resources are vulnerable to a wide range of effects from climate change, some of which are already occurring.

Based on the freshwater ecosystem case study in the GAO report, possible effects to the proposed Project Area could include average temperature increases in Spring with earlier initial and maximum snow melt and higher water levels; vulnerability to fire due to evaporative stress (drying) from more hot days; changing precipitation patterns with more rain and less snow in winter causing winter streamflows to increase; decreased snowpacks and altered timing of spring runoff; larger and more severe storms and lightning causing more forest fires and drier conditions, feeding larger, more intense wildland fires; warming temperatures and more severe drought with increased risk of insects and diseases to trees; possible increases in invasive species, and warmer stream temperatures negatively affecting aquatic organisms and fish species that thrive in cold water.

Recommendation:

- The FEIS should include a discussion of climate change and its potential effects on the proposed action and on the action’s impacts.

Naturally Occurring Asbestos

Provide information on the presence of naturally occurring asbestos (NOA) in the Project Area. Asbestos-bearing ultramafic rocks are found in at least 44 of California’s 58 counties. Disturbance of rocks and soils that contain NOA can result in the release of asbestos fibers to the air and exposure to humans. Asbestos is a known human carcinogen and represents a potential human health risk for those exposed while working in areas where it occurs. For information on the occurrence of NOA and health impacts, see EPA’s NOA webpage at <http://www.epa.gov/asbestos/pubs/clean.html>. The DEIS does not appear to indicate whether NOA has been identified in the Project Area. Nor does it evaluate potential risks to workers who may be exposed to NOA while carrying out the proposed actions.

Recommendation:

- Determine whether or not NOA is present within the Project Area. Assess the potential for exposure to elevated levels of NOA from proposed activities. Provide information in the FEIS.
- If NOA is found to be present, review the California Air Resources Board (CARB) regulations and guidance at <http://www.arb.ca.gov/toxics/asbestos/asbestos.htm>, which address California’s Asbestos Airborne Toxic Control Measures for Surfacing Applications that apply to unpaved roads. Additional road surfacing recommendations are available in the Department of Toxic Substances Control report "Study of Airborne Asbestos From A Serpentine Road in Garden Valley, California" (April 2005) at: <http://www.dtsc.ca.gov/loader.cfm?url=/commonsot/security/getfile.cfm&pageid=33546>.

- If appropriate, measures to protect human health from NOA should be incorporated into the FEIS and committed to in the Record of Decision.

Additional Information

Include additional information on the proposed amendment to the Forest Plan. The proposed action includes an amendment to the Forest Plan that permits removal of trees older than 80 years from the Late-Successional Reserve (LSR). Text on p. 8 reads, “The Forest Service Regional Ecosystem Office has reviewed, and approved of, this amendment of the Forest Plan to allow removal of trees between 80 and 150 years old from LSR, as recorded in the STNF Late-Successional Reserve Assessment and transmittal letter in 1999”. STNF refers to the Shasta-Trinity National Forest.

Recommendation:

- Include the above referenced STNF Late-Successional Reserve Assessment and transmittal letter in an appendix to the FEIS.