UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 6, 2009

Sandy Mack
Team USFS
Salt Project
1801 N. First
Hamilton, MT 59840-3114

Subject: Draft Environmental Impact Statement for the Salt Timber Harvest and Fuel Hazard Reduction Project, Trinity County, California (CEQ# 20090082)

Dear Ms. Mack:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above project. Our review and comments are pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The Hayfork District of the Shasta-Trinity National Forest is proposing to conduct vegetation management activities in the upper Salt Creek watershed. The purpose of this project is to improve forest health and resiliency, reduce hazardous fuels condition, and provide timber products. The Proposed Action would involve a total of 1,619 acres located in the 4,278-acre project area in the Shasta-Trinity National Forest.

EPA acknowledges the importance of project goals to improve forest health, reduce fuel loading, and provide forest products. We recognize the ecological significance of the Shasta-Trinity National Forest and support the inclusion of resource protection measures and best management practices described in the DEIS. Project features such as limiting the amount of new road construction and decommissioning roads after activities are complete will help minimize adverse effects. Overall, the DEIS is well organized and contains valuable information useful to both the public and decision maker(s).

We have rated the DEIS as Environmental Concerns – Insufficient Information (EC-2) (see enclosed "*Summary of Rating Definitions*"). We recommend the Final Environmental Impact Statement (FEIS) provide additional information on proposed treatment descriptions, the economic viability of the project, closure and

decommissioning of roads, smoke management plan, worker exposure to naturally occurring asbestos, air quality mitigation measures, and climate change. To ensure local community economic benefits, we recommend the Forest Service focus on the use of local stewardship contracts which utilize community and Tribal labor pools. Our enclosed detailed comments provide additional information regarding the concerns identified above.

We appreciate the opportunity to review this DEIS and are available to discuss our comments. When the FEIS is released for public review, please send one hard copy to the address above (mail code: CED-2). If you have any questions, please contact Ann McPherson, the lead reviewer for this project, at (415) 972-3545 or mcpherson.ann@epa.gov or contact me at (415) 972-3521.

Sincerely,

/s/

Connell Dunning for

Kathleen M. Goforth, Manager
Environmental Review Office

cc: J. Sharon Heywood, Forest Supervisor, Shasta-Trinity National Forest

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE SALT TIMBER HARVEST AND FUEL HAZARD REDUCTION PROJECT, TRINITY COUNTY, CALIFORNIA, MAY 6, 2009

Clarification of Alternatives

Provide a more detailed description of proposed treatment prescriptions. The DEIS describes the acres and types of fuel and forest health treatments without describing specific treatment features in the description of alternatives (Chapter 2; table 4). In most cases, the DEIS does not describe the maximum allowable tree size for harvesting or thinning, slope restrictions by type of treatment, or the desired spacing between trees. The DEIS states that generally the largest, healthiest trees would be retained in areas of intermediate thinning (pg. 14). Canopy closure rates are expected to range from 40 to 60 percent in most areas, depending on the Forest Plan management objectives. It is unclear, however, what the threshold would be to determine which and how many trees would be classified as the "largest and healthiest."

Recommendations:

We recommend the Final Environmental Impact Statement (FEIS) provide a more detailed description of the proposed silvicultural prescriptions presented in Chapter 2 (Alternatives). For example, describe the maximum allowable tree size to be harvested or thinned (including methodologies for the assessment) and slope restrictions for different treatment methods (hand, ground-based, helicopter).

Clarify the diameter-at-breast height (DBH) threshold that would be used to determine which and how many trees are classified as the "largest and healthiest."

Include a commitment to leaving trees greater than a specific DBH in size and identify how this would be implemented.

Clarify the major sources for merchantable saw timber and biomass in Alternative 2. The DEIS states that the Proposed Action (Alternative 2) is expected to produce approximately 9.4 million board feet of merchantable saw timber and 15,074 tons of biomass (pg. 16). Alternative 3, however, would produce only 3.3 million board feet of merchantable saw timber and 4,680 tons of biomass. The total proposed treatments for Alternative 3 affect 1,415 acres; total proposed treatments for Alternative 2 affect 1,619 acres.

Recommendation:

Clarify why there is such a large difference in the amount of forest products generated by Alternatives 2 and 3, considering that the acreage varies from 1,619 acres to 1,415 acres. We suspect that this is due to the decision to retain 60% canopy closure rather than 50% canopy closure for Alternative 3. We recommend that the FEIS present a table illustrating the breakdown of anticipated forest products by forest unit.

Economic Viability

Clarify the economic viability of the project. The DEIS indicates that the total sale value of forest products in Alternative 2 is $316,767 (ground based) and -$20,682 (helicopter unit). In contrast, Alternative 3 would not have a viable timber sale component—the total sale value of forest products in Alternative 3 is -$33,355 (ground based) and -$281,981 (helicopter unit) (pg. 92). Alternative 2 could cost $573,948 to implement all activities (pg. 85); alternative 3 would cost $748,515 to implement all activities (pg. 90). The DEIS also states that the helicopter unit could be combined with helicopter units in a future project in an adjacent watershed to make it more economically feasible (pg. 44).

> ***Recommendation:***
> The FEIS should clarify whether the total costs to implement all activities includes helicopter units or not. The difference between the helicopter costs associated with Alternatives 2 and 3 is $261,299 ($281,291 – 20,682)…which is greater that the difference between the total costs associated with each alternative $174,567 ($748,515 - $573,948). The FEIS should specifically identify how combining the helicopter units with a project in an adjacent watershed would affect these estimated costs. Please itemize the costs associated with combining the helicopter work in an adjacent watershed.

Closure and Restoration of Roads and Landings

Provide a closure and restoration plan for the proposed temporary roads and landings. The DEIS states that 0.3 miles of temporary roads would be constructed to access treatment units and would be obliterated when the project is complete (pg. 16). Approximately 17.1 miles of existing Forest System roads would be reconstructed, and approximately 13.8 miles of road would be decommissioned after the timber harvest and fuel reduction actions are completed. Although the DEIS states that 13.8 miles of road would be decommissioned following the completion of harvest, there is no detailed information provided on when or how this closure would occur.

> ***Recommendation:***
> We recommend the FEIS provide a detailed closure and restoration plan for the proposed temporary roads and landings. This plan should include specific information on whether these roads and landings would be recontoured, replanted with appropriate vegetation, monitored, and closed to off-highway vehicle use. We recommend the FEIS include a specific post-harvest schedule for closure of the temporary roads and landings.

Naturally Occurring Asbestos

Limit exposure to Naturally Occurring Asbestos. The DEIS describes the presence of serpentine geology in the project area (pg. 142). Serpentine and other soils in the Sierra Nevada of California have been found to contain chrysotile and amphibole asbestos. Although serpentine soils may be limited, it is important to protect human health by limiting the exposure of workers to this air pollutant. Very low levels of asbestos in soil

can generate airborne asbestos at hazardous levels. We are concerned about the potential exposure of workers to Naturally Occurring Asbestos.

Recommendations:
EPA recommends that the Forest Service determine whether or not Naturally Occurring Asbestos is present in treatment units or along project access routes. If Naturally Occurring Asbestos is present, the FEIS should provide information on exposure mechanisms and assess the potential for exposure to elevated levels from proposed activities.

EPA recommends that the Forest Service review the asbestos occurrence information on the California Geological Survey website: http://www.consrv.ca.gov/cgs/minerals/hazardous_minerals/asbestos/index.htm and the California Air Resources Board (CARB) regulations and guidance at: http://www.arb.ca.gov/toxics/asbestos/asbestos.htm. The CARB website addresses California's Asbestos Airborne Toxic Control Measures for surfacing Applications, which apply to unpaved roads. This issue should be documented in the FEIS.

EPA also recommends that the Forest Service review the recommendations presented in the Department of Toxic Substances Control report, "Study of Airborne Asbestos from a Serpentine Road in Garden Valley, California" at: http://www.dtsc.ca.gov/loader.cfm?url=/commonspot/security/getfile.cfm&pageid=33546.

The FEIS should identify and include commitments for measures that can be implemented to protect human health from Naturally Occurring Asbestos, if appropriate, and include this discussion in the FEIS.

Air Quality

Provide a detailed smoke management plan describing the North Coast Air Quality Management District's (NCAQMD) Smoke Management Program. The DEIS states that the forest will follow the NCAQMD Smoke Management Program in order to avoid creating a nuisance, visibility impairment, or impacts to public health (pg. 217).

Recommendation:
The FEIS should include a detailed smoke management plan describing the NCAQMD regulations for pile burning and smoke management, an implementation schedule, the responsible parties, and monitoring and reporting requirements.

Include a Construction and Operations Emissions Mitigation Plan. The DEIS presents estimates for exhaust emissions from mobile equipment (table 98; pg. 215) and states that dust from hauling will be minimized by requiring abatement with either water or some

other alternative. Emissions from prescribed burning are also estimated (table 100; pg. 216). We recommend that the FEIS also include measures to mitigate these emissions.

***Recommendation*:**
EPA recommends that the Forest Service include a Construction and Operations Emissions Mitigation Plan for fugitive dust and diesel particulate matter (DPM) in the FEIS and adopt this plan in the Record of Decision (ROD). We recommend that the following measures be included in order to reduce impacts associated with emission of particulate matter and other toxics, particularly in areas where the public or Forest Service staff may be impacted:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or other dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Reduce use, trips, and unnecessary idling from heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification, where applicable, levels and to perform at verified standards applicable to retrofit technologies. The California Air Resources Board has a number of mobile source anti-idling requirements which could be employed. See their website at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm.
- 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.

Administrative controls:

- Identify all commitments to reduce construction and operations emissions in the FEIS and specify air quality improvements that would result from adopting specific air quality measures.
- 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: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant

damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public).

Climate Change

Describe climate change and its effects on successful reforestation. Current research indicates that climate change could impact the amount, timing, and intensity of rain and storm events; increase the length and severity of the fire season; modify the rate and distribution of harmful timber insects and diseases; and aggravate already stressed water supplies. A significant change in the weather patterns could have important implications for how we manage our forests. A significant change in weather patterns could have important implications for how we manage our forests. A number of studies specific to California have indicated the potential for significant environmental impacts as a result of changing temperatures and subsequent environmental impacts.[1] The California Climate Action Team just released a report[2] on the impacts of climate change to California, the latest research, and state efforts to adapt to impacts. The report indicates that estimates of the long-term risk of large wildfires in California are substantial, with increases in occurrences statewide ranging from 58% to 128% in 2085.

On the subject of climate change, the DEIS presents three paragraphs in Section 3.17 and concludes that the analyses of impacts associated with greenhouse gases and carbon dioxide emissions or sinks at the project level are too low to provide meaningful information that can be translated into climate change information (pgs. 213, 219). EPA recommends that the Forest Service consider the potential effects of climate change on Forest Service resources and describe how the Forest Service will adaptively manage affected resources. For example, the likelihood of larger and more frequent wildfires could increase erosion, sedimentation, and chemical and nutrient loads in surface waters, resulting in adverse impacts to water quality and quantity as well as species diversity.

Recommendation:

We recommend the FEIS include a more detailed description of climate change and the implications on successful reforestation. For example, describe and evaluate projected climate change consequences such as frequency of high intensity storms, and amplified rain events and the severity and frequency of insect outbreaks, droughts, and fire seasons, and their effects on the success of reforestation efforts.

[1] Our Changing Climate: Assessing the Risks to California, A Summary Report from the California Climate Change Center, July 2006.

[2] Draft 2009 Climate Action Team Biennial Report to the Governor and Legislature. See internet address: http://www.climatechange.ca.gov/publications/cat/index.html.