

Climate Change

Sierra Club/Alliance for the Wild Rockies

Objectors contend the FS has not taken a "hard look" at how the Forest Plan would be in accord with the agency's 2010 National Roadmap for Responding to Climate Change, which includes guidance to:

- a. Assess vulnerability of species and ecosystems to climate change**
- b. Restore resilience**
- c. Promote carbon sequestration**
- d. Connect habitats, restore important corridors for fish and wildlife, decrease fragmentation and remove impediments to species migration.**

The FEIS fails to provide comprehensive estimates of the total amount of carbon dioxide (CO₂) or other greenhouse gas emissions caused by Forest Service management actions and policies – forest-wide, regionally, or nationally.

Response:

The FEIS contain an analysis and summary of current climate change and carbon resources literature as well as specific analysis of the potential effects of climate change on each resource (FEIS, Vol 2, pp 147-157). The revised forest plan contains desired conditions for soil, snags, and down wood that provide for retention of carbon by promoting soil organic matter. (FEIS, Vol. 3, pp. 1033)

In the Response to comments (FEIS, Vol. 3, pp. 1033) the following was stated:

The revised forest plan provides a framework and guidelines to promote ecological function and sets the management of the Colville National Forest to add resilience, resistance, and adaptation to the potentials effects of climate change and results of those second order effects, such as wildfire, insect and disease, soil moisture.

The FEIS addresses greenhouse gas emissions in chapter 3, Climate Change section. At the forest scale, all of the alternatives are expected to have similar discharges of greenhouse gases and the same effects on carbon storage. The amount of prescribed fire, fuel reduction, and timber harvest treatments completed on NFS lands are consistent throughout the alternatives. These are the major components in greenhouse gas emissions and potential changes in carbon storage and are the same across alternatives and thus most likely would not change. Nitrous oxide emissions from Forest Service land management activities is a very small percentage of United States nitrous oxide emissions (less than 1%) and is viewed as a minor component in Forest Service greenhouse gas emissions. Planned ignitions would be the major contributor of nitrous oxide emissions with a lesser extent of fossil fuel consumption to complete treatments/accomplishment and cattle grazed on NFSs lands. Carbon accounting and emissions on a regional or national scale is beyond the scope of proposed revised forest plan and forest plan analysis.

Carbon flux over time is presented in the Climate Change section of chapter 3 (FEIS) which is a summary of Forest Service Region 6 carbon analysis and reporting document (USDA Forest Service 2014b). The current modeling shows that the Colville National Forest is a possible sink of atmospheric carbon and should continue on this trend. The sequestration of carbon is one of the possible ecosystem functions of forests, although some systems are net

sources. This trend should continue as additional stands are moved into the path of old forest structure. Old forests contain large amounts of carbon in a stable form that is resistant to large-scale disturbance.

In addition to carbon sequestration, protecting that carbon from high severity wildfire should be considered. Removal of carbon due to timber harvest is less than the potential for removal of carbon from the landscape from high severity wildfire. The risk for carbon to be emitted from uncharacteristic fire needs to be considered in restoration treatments as well as past fire history, historical range of variability, and potentials for the achieving of old forest stand structure. The type of forest management should match multiple goals and not solely focus on the amount of carbon.

Objector believes the FS failed to take a hard look at climate change and identified several concerns.

- The record contains a vulnerability assessment (Gaines, et al, 2012) for the Colville and Okanogan-Wenatchee) which provided the best available information to inform climate considerations and was used to inform the FEIS and the record of decision.
- Climate considerations are appropriately integrated throughout the FEIS. I particularly note that carbon stewardship section which discusses the nuances of carbon as one of many multiple use objectives that an individual unit may managing uniquely to the site.

Objector stated the FS should provide a more comprehensive estimate of GHG emissions, noting that concerns with leakage and carbon calculations being insufficient, old growth forests should be allowed to mature to old growth condition, methane and nitrous oxide releases are more potent and should be more closely addressed.

- The record shows that the Forest provided a reasonable analysis of carbon storage on the Colville sufficient to provide a reasonable context for informing the decision. Throughout all alternatives, the Colville is expected to be a carbon sink into the future.
- The record notes that a comprehensive analysis of carbon accounting is beyond the scope of a Forest Plan but notes that on the scale of a National Forest plan, the emissions are relatively small.
- The Forest Service manages national forest system land for a wide-range of multiple-use benefits, including carbon sequestration, but also timber, grazing, recreation plant, fish and wildlife values that support regional economies. While there is no legal requirement to optimize carbon sequestration, the Forest Service values the role of carbon sequestration and the record shows that this value is considered in the project record.

Several additional comments were offered by the objector related to “re-thinking the forest economy” and investing in forest stewardship, questioning whether the current management approach will sustain forest-dependent jobs important to the economy, and the need to provide for a multitude of species and resource values such as water and a host of regulatory values

including clean water, flood control, and carbon sequestration and the ecological connections important to support those functions.

- The record clearly acknowledges the influence on climate change to the Colville's trust resources and the ecosystems functions likely to be affected in the vulnerability assessment and in the EIS.
- The record discusses the trade-offs and provides a reasonable foundation for informing the project-level decisions to necessary to manage the Colville National Forest consistent with investing in forest stewardship across multiple resource values.

CONCLUSION: I do not find a violation of law, regulation or policy. The record adequately supports the record of decision and the scope of the decisions relative to climate change to be within the scope of the law, regulations and policy of the Forest Service.

POSSIBLE INSTRUCTIONS (if any):

Highlight the relative scale of global climate change relative to NFS and particularly, this NFS's unit relevant role in response.

The scale of the problem related to climate change is very large compared to the scale of the role forests can play in response to GHG emissions. The forest service should continue to acknowledge the value the NFS units play to counteract climate change. The FS should highlight external additional GHG emissions are tremendous compared to the scale of NFS emissions. The Forest Service should strive to manage the lands such that the forest remain neutral or negative with respect to GHG emissions.

The Forest Service should prioritize climate considerations where most relevant to make a meaningful difference within the multiple use management mandate.