

## Water Quality Issues

WildEarth Guardians

Sierra Club/Alliance for the Wild Rockies  
Conservation Northwest

- **The FEIS and revised plan do not adequately address the impacts from forest roads (including system, unauthorized and temporary roads). Objectors believe the road-related plan components in the Colville's revised Forest Plan fail to provide resource protections in violation of regulation.**
- **Plan components fail to ensure water quality is maintained, despite the fact best available science demonstrates forest roads are a primary cause of water quality degradation.**
- **The revised plan does not prevent destruction or adverse modification of critical habitat for threatened and endangered species. The revised plan allows new roads in key watersheds with ESA critical habitat for aquatic species so long as there is no net increase in system roads affecting hydrologic function.**
- **The plan objectives are inadequate because they lack time-specific parameters, fail to achieve or work toward desired conditions, or are missing. An example relates to restoring aquatic organism passage and deferred maintenance related to roads.**
- **There are no objectives, standards, or guidelines addressing maintenance of the road system in light of maintenance levels, levels of use, or available funding.**
- **Since road density desired conditions do not consider closed maintenance level 1 roads [in No Action Alternative], they do not adequately address potential impacts of the road system on hydrologic and aquatic function and habitat (FEIS p 346).**
- **The road-related plan components in the revised Forest Plan create exceptions and allowances for road building activities that will cause or contribute to a violation of water quality standards in violation of the Clean Water Act.**
- **The hydrologic analysis bases a lot of impacts on water quality (and therefore fish) on the sediment risk from roads, however the impacts of logging due to elevated water yield impacts and compacted soils in units are not evaluated. This underestimates the FEIS's impacts on fish populations.**

### **Response:**

#### **RULE (Law, Reg, or Policy) (if applicable):**

Sec. 219.23 Water and soil resource.

Forest planning shall provide for--

- (a) General estimates of current water uses, both consumptive and non-consumptive, including instream flow requirements within the area of land covered by the forest plan;
- (b) Identification of significant existing impoundments, transmission facilities, wells, and other man-made developments on the area of land covered by the forest plan;
- (c) Estimation of the probable occurrence of various levels of water volumes, including extreme events which would have a major impact on the planning area;
- (d) Compliance with requirements of the Clean Water Act, the Safe Drinking Water Act, and all substantive and procedural requirements of Federal, State, and local governmental bodies with respect to the provision of public water systems and the disposal of waste water;

(e) Evaluation of existing or potential watershed conditions that will influence soil productivity, water yield, water pollution, or hazardous events; and

(f) Adoption of measures, as directed in applicable Executive orders, to minimize risk of flood loss, to restore and preserve floodplain values, and to protect wetlands.

**FSM 2532 – Water Quality Management**

**Record:**

The Plan recognizes the Colville’s role in sustaining/protecting water quality many times.

**FEIS Chapter 3 -Water Resources Plan Components**

*FW-DC-WR-05. Water Quality*

*National Forest System lands contribute to water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality is within the range that maintains the biological, physical, and chemical integrity and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities, and meets appropriate Washington State water quality standards. Subbasin scale is used for forest planning and 5th field watershed or subwatershed scale is used for project planning.*

**FEIS Volume 3, Appendices A through J**

**Table B-1. Planning and land use policies of State, local, Tribal governments and other Federal agencies in the greater landscape, considered in the plan revision**

Water Quality Implementation Plan (2006), and addendum (2013)	Washington State Dept. of Ecology (WDOE)	A detailed plan developed by the Colville National Forest and Ecology to reduce pollution and measure progress toward meeting water quality standards for waterbodies on the forest that do not meet water quality standards. The plan identifies how much pollution needs to be reduced or eliminated to achieve water quality standards.
National Best Management Practices for Water Quality Management on National Forest System Lands (2012)	USDA Forest Service	The technical guide describes guidance for the Forest Service, U.S. Department of Agriculture, National Best Management Practices (BMP) Program. The National BMP Program was developed to improve agency performance and accountability in managing water quality consistent with the Federal Clean Water Act (CWA) and State water quality programs.

**Proposed Remedies:**

- 1) Revise the road-related plan components in the revised land management plans to ensure the road-related plan components comply with the Clean Water Act. *WildEarth Guardians*

**Response:**

The revised LMP states Forest Plans need to be consistent with existing laws, for example: Endangered Species Act (ESA), the Clean Water Act, the Clean Air Act (revised LMP, pp. 20). The revised LMP states “*All projects on NFS lands implemented in a manner consistent with meeting State surface water quality standards, and the programs established under the Clean Water Act. This includes moving toward meeting water quality improvement targets established in the Colville National Forest Total Maximum Daily Load and Water Quality Implementation Plan for temperature and fecal coliform. Preservation and improvement of water quality is achieved through implementation of best management practices and Forest Plan components, including desired conditions, objectives, standards, and guidelines, and active restoration*” (revised LMP, pp. 46). Many of the requirements within the plan do just that. For example the desired condition for Water Quality (FW-DC-WR-05) states “*National Forest System lands contribute to water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality is within the range that maintains the biological, physical, and chemical integrity and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities, and meets appropriate Washington State water quality standards.*” (revised LMP, pp. 52)/ While this is the desired condition it would be inappropriate to have very specific standards for this as sites and situation will differ.

One of the ways they intend to address the Clean Water Act is by addressing sediment. This is done with FW-DC-WR-06, Sediment Regimes (revised LMP, pp. 52). This desired condition states, “*National Forest System lands contribute to the sediment regime within the natural range of variation. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.*” This desired condition is followed up in FW-OBJ-WR-03 (revised LMP, pp. 54) which states that in the next 15 years actions will be taken to decrease sediment delivery from management activities on 1,000 acres including roads and trails. While 1000 acres in a 1,000,000 acre Forest may not seem like a lot of acres, but as the FEIS states it has been shown that 2 to 10 percent of the road drain points can account for 90% of the sediment from roads (FEIS, Vol. I, page 322). Overall there is acknowledgement of the risks of road in the FEIS (FEIS, Vol. I, pp. 320-324).

It is important to recognize the Forest Service sees the violation of the Clean Water Act as a serious violation. The revised Forest Plan set many Desired Conditions in a manner that would not just avoid violating the Clean Water Act but would likely improve water quality.

Objective - FW-OBJ-WR-04 is a commitment to restoring aquatic organism passage for native species at 45 road and stream crossings within 15 years (revised LMP, pp. 54). While this is a limited number, this number reflects what current funding levels have permitted the Forest to complete. If the location of this work is prioritized, work in these 45 road stream crossings can have an outsized effect on species distribution and potentially viability, as well as reducing sediment entry into stream systems.

The draft ROD (pp. 5) states: “*The revised land management plan’s programmatic management direction will be implemented through the design, execution, and monitoring of site-specific activities such as harvesting timber, conducting a prescribed burn, or relocating a trail. The decisions for these activities will be consistent with the strategic decisions made in the revised land management plan and are subject to separate analysis under the NEPA.*” To that end, this plan and its decision provided general guidelines to reduce the input of sediment from roads. They are necessarily strategic, as site conditions across the Colville vary dramatically. While the desired conditions and objectives outline an approach to limit the amount of sediment that makes it to aquatic systems, it will be up to project level decisions to insure the Clean Water Act is met.

- 2) Modify MA-DC-FR-05. Travelways, Roads (LMP p 107) and MA-DC-GR-05. Travelways, Roads (LMP p 109) to include all roads include open, closed and hydrologically stabilized roads in the road density calculation. *Conservation Northwest*

**Response:**

The FEIS discusses the general risk of roads on pages 320 to 324. The desired condition at FW-DC-WR-02 (revised LMP, pp. 51) states the plan will maintain “*Hydrologic and Aquatic and Riparian Habitat Connectivity*”, so that even if road remain there should be increased passage opportunities going forward. This is followed by FW-DC-WR-17 (revised LMP, pp. 54) which states “*Roads in key watersheds are not a risk to the function of soil and water resources. Roads do not disrupt hydrologic or aquatic habitat function or threatened and endangered species biological and behavioral attributes.*”

The objector points to clear objectives for new road such as FW-STD-WR-05 (revised LMP, pp. 56) which states the construction of new roads will be designed to minimize disruption of natural hydrologic processes at perennial and intermittent stream crossings, valley bottoms, valley approaches and other over-land drainage features. Objectors suggest we seem to have more standards related to new roads rather than old road – and this is because we better recognize the threat these systems pose to aquatic habitats. But that does not mean no attention is paid to the existing roads. The Desired Condition that they cited in the remedy (MA-DC-FR-05 and MA-DC-GR-05, revised LMP, pp. 107 and 109) show the Forest is attempting to deal with all roads (old and new) by reducing the overall road density by subwatershed.

The Fisheries Report (This report is in the project record, page 2) describes the relationship between road density and the presence of important native fish species. There is a good defense on what road densities should be within this report (pages 30-34) through a series of citations. In general these citations provide a rationale for road density where fewer roads are better. It should be noted that the papers cited within this section (Lee et al 1997, Al-Chokhachy et al. 2010, Meredith et al. 2014 (*I was a coauthor on the last two of these so I know this to be true*)) used coarse road density data for their analysis and likely include some but not all road level 1 roads. It is important to remember that road density is just one metric of watershed conditions with both strength and weaknesses.

While we understand the desire to track all roads (which the agency does to the best of its ability), by choosing objector’s remedy there would be no value in doing road improvement on Level 1 roads if they are left on the road system for future use. Based on the suggestion in the remedy, the only way to get credit for a road work would be to decommission a road and remove it from the system. Furthermore, there would be no incentive to make a road Level II or higher road hydrologically inert but to leave it on the road system. Such a system might result in the Forest Service getting the easiest roads (level 1) while leaving higher maintenance level roads in place.

It is not clear how including all the Level 1 roads would address the proposed remedy, doing work there would show no benefit. Doing so would generally increase overall road density and the only way to decrease road density would be to remove roads from the road system. As suggested in the previous paragraph closing and restoring roads that are maintenance level 2 to hydrologically inert level 1 road would in most cases provide greater restoration than a similar action on a maintenance level 1 road removed from the road system. The cost of decommissioning road is high but, in many cases, it is cheaper and just as effective to make roads hydrologically inert and leave them on the system.

Overall, Table 125 (FEIS, Vol. I, pp 322) suggests this issue is likely not to come into play in the near term. Based on this table, only 5% of the subwatersheds have road densities less than 1 m/m<sup>2</sup> and more

than 50% of the subwatersheds have road densities  $>2.4$  m/m<sup>2</sup>. Whether these numbers include all roads or only those roads maintenance level 2 and above, the Forest is a long way from this desired condition and given the level of restoration effort on roads in the plan, it will take time to reduce watershed road density goals irrespective how road densities are calculated.

**CONCLUSION:**

No violation of law or policy.

**POSSIBLE INSTRUCTIONS (if any):**

Finally, while I can see why they dropped maintenance level 1 roads – it is not clear why they dropped roads of other jurisdictions. I could even see this if it was off-forest but it is not clear if this includes highways or other state/private roads that traverse NFS lands.