State of Oregon
Department of Environmental Quality **Memorandum**

Date: February 27, 2007

To: Kevin Birch, ODF

From: Marianne Fitzgerald, DEQ
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Subject: Federal Forestlands Advisory Committee, Top Issues

Here are the issues identified by DEQ staff for federal forestland management in Oregon.

1. Restore, maintain and enhance the quality of surface and groundwater to meet water quality standards. Water quality standards protect beneficial uses, such as drinking water, fish and aquatic life, recreation, and irrigation. Many miles of impaired streams are on federal forestlands. Issues of particular importance include temperature, sedimentation and turbidity, and toxics.

   Although there is a considerable body of data on acute exposure effects for commonly used herbicides, the chronic and sublethal risks are not yet well characterized. The historical record of pesticide toxicology reveals many cases of serious and unexpected adverse effects associated with pesticides were not predictable from standard acute toxicity tests. In addition, many of the pesticides used on federal lands have been detected in surface or groundwaters in the USGS National Ambient Water Quality Assessment (NAWQA) studies. These include 2,4D, atrazine, bromocil, dicamba, diuron, glyphosate, simazine, and trichlopyr (http://pubs.usgs.gov/circ/circ1161/nawqa91.d.html). These data suggest that standard application practices may result in measurable concentrations of these compounds in surface waters near application areas, sometimes above water quality standards.

2. Protect public drinking water sources. Approximately 75% of Oregon's municipal watersheds are forestlands. Watershed protection and management, combined with effective water treatment and monitoring, are important steps in providing high quality drinking water to Oregonians. From federal lands, municipal water providers are primarily concerned with sedimentation/turbidity and pesticides. For some providers, there are additional concerns about fire retardants. Even the best state-of-the-art drinking water treatment facilities cannot fully remove many of the commonly used pesticides and fire retardants. Implementing protective actions in sensitive areas, and minimizing the use of pesticides and fire retardants, can be effective in providing clean source water to public intakes and wells.

3. Protect riparian areas, wetlands and unstable slopes. Riparian forest buffers maintain in-stream water quality by providing stream shade, allowing water to infiltrate the soil to decrease water velocity and prevent erosion, maintaining higher levels of organic carbon in the soil to fuel denitrification and other processes, removing dissolved pollutants from the soil water, and stabilizing streambanks.

4. Protect aquatic life and salmon. These species are especially vulnerable to temperature, sedimentation and toxic pollutants. In addition, the federal forest lands provide key refugia for at-risk fish stocks. Many of the refugia are roadless areas/key watersheds that support sensitive salmonid populations or provide high quality waters to sensitive salmonid populations. Protection of high quality waters, via Oregon's antidegradation policy, is an important component of Oregon's water quality standards.

5. Minimize public health impacts from smoke from wildfires and prescribed burning. One method to treat stands at risk in wildfire-prone areas is to increase the amount of prescribed burning and manage the smoke away from smoke-sensitive receptor areas. Increasing prescribed fire use requires developing more sophisticated smoke management forecasting techniques, improving emission inventories, using appropriate emission reduction techniques, and greater use of real-time monitoring equipment. Increasing biomass utilization (wood chipping and developing markets for fuel and energy production) should be the preferred alternative to prescribed burning wherever feasible, particularly in wildland urban interface areas.

   In addition to prescribed fire, thinning of dense, young stands can reduce fuel loadings and future smoke emissions from both prescribed and wild fire. Fire suppression and past harvest have substantially altered the nature of many forested stands in SW OR and Eastern OR.

5. Consider how climate change may affect forest management. Predicted drought conditions, invasive species, changing forest species and the need for carbon sequestration are adaptations that we should be planning for now, to avoid additional threats of wildfires.

6. Consider impacts of grazing, mining, and recreation. These uses of federal forestlands can negatively impact water quality.

7. Roads are a source and conduit of sediment. The road network on federal forest lands is extensive and contributes to water quality impacts and fish passage problems. A substantial backlog in road maintenance and road closures highlights the importance of addressing the effects of forest roads.

8. Consider the need for improved coordination and streamlining due to shrinking local, state and federal agency budgets and overlapping federal regulations that guide land management decisions.

Thanks for the opportunity to provide this input. If you have any questions, please contact me at (503) 229-5946, or email at fitzgerald.marianne@deq.state.or.us. My mailing address is Oregon DEQ, Air Quality Division, 811 S.W. Sixth Avenue, Portland, OR 97204.