

## **Air Quality Primer**

November 16, 2013 Collaborative Meeting

Air quality within the Nez Perce-Clearwater NF's planning area is generally good. Primary impacts to air quality within the plan area are from smoke generated from prescribed burning and wildland res. Impacts from these activities are generally short-lived (days), but may persist for weeks under stable atmospheric conditions. Generally, the majority of smoke generated on the Nez Perce-Clearwater NF's is transported east/northeast with the prevailing wind currents into the Bitterroot and Missoula Valleys, however, due to the variability of terrain on the forest, some smoke will pool in valleys and canyon bottoms at night. Smoke from prescribed res is generally most impactful during the spring and fall seasons, while wildland re smoke occurs during the summer and fall months.

Air Quality on the forest is also impacted from sources outside the planning area. Prescribed re and wildland re smoke from adjacent state and private lands impacts local airsheds and air quality within the planning area. Wildland re smoke generated from large res in Oregon, Washington, California and Southern Idaho will drift through and into the planning area during summer months. Also, there is mounting evidence of critical load exceedance for Acidity (surface waters) and elevated Nitrogen (plants and lichens) within the plan area. Upwind industrial sources are the most likely source of these exceedances.

### **Regulatory Framework**

The basic framework for controlling air pollutants in the United States is mandated by the Clean Air Act (CAA) of 1963 and consequent amendments. The CAA established National Ambient Air Quality Standards (NAAQS), which must be met by state and federal agencies, and private industry. States are given the primary responsibility for air quality management.

Forest Service Air Quality Policy directs coordination of National Forest activities with state and federal air quality control efforts. This is done by properly managing and/or mitigating the sources of air pollution created by Forest Service activities such as prescribed re, the construction and use of roads and the operation of various facilities. The Forest Service has established pollution and air quality related value impact monitoring efforts in wilderness areas to understand the condition and trends of resources of concern, such as lichen or sensitive lakes.

### **Practical application**

The Forest Service is a contributor and member of the Montana/Idaho Airshed Group. The group is composed of state, federal, tribal and private member organizations who are dedicated to the preservation of air quality in Montana and Idaho. One of the goals of the group is to "Prevent adverse smoke impacts from prescribed re in Montana and Idaho in order to protect public health and meet state and federal ambient air quality standards and visibility guidelines".

The Forest Service (and other members), submit the following information to the airshed group for consideration prior to prescribed burning:

- Location, size, duration, fuel loading and proposed implementation date for the prescribed burn

The Airshed group will evaluate current air quality, smoke dispersion forecasts, weather forecasts (current and expected), topography and other potential prescribed burns in the area as they relate to the prescribed burn request. From this information, the airshed group determines which (if any) prescribed burn projects can be implemented on a certain date and for a certain area. Locally, re managers also evaluate site-specific conditions and potential impacts, prior to igniting a prescribed burn unit.

Coordination with the Airshed Group, and amongst members of the group, occurs frequently during active burning season to help minimize cumulative air quality impacts to local and adjacent communities and the Nez Perce-Clearwater NF.