

**Gearhart Mountain Wilderness Air Quality Report**

National Forest: Fremont National Forest

State: OR

Counties: Klamath, Lane

General Location: South Central Oregon

Acres: 22,684



# Gearhart Mountain Wilderness Air Quality Report

Wilderness ID: 066

Wilderness Name: Gearhart Mountain Wilderness

Wilderness Categories	Information Specific to this Wilderness
Year Established	1964
Establishment Notes	Oregon Wilderness Act of 1984, The Wilderness Act of September 3, 1964
Designation	Clean Air Act Class 1
Administrative	Fremont-Winema National Forest
Unique Landscape Features	<p>At 8,364 feet, Gearhart Mountain stands higher than all the other volcanic domes in this Wilderness of high mountain meadows, cirques, and U-shaped valleys. Picturesque rock formations cap most of the ridgelines, offering sweeping views of the artistic sculpturings of long-vanished glaciers. Lodgepole pine, ponderosa pine, whitebark pine and white fir dominate the vegetation. There is only one lake in the Wilderness, Blue Lake. The Wild and Scenic North Fork Sprague River sweeps past the northern boundary of the area.</p> <p>The wilderness has fairly gentle terrain and open forestland with beautiful mountain meadows with lush green ground cover, stands of aspens, and multitude of spring flowers. The snow starts in late September and may linger until early July. Snowshoeing and backcountry skiing are increasingly popular sports here.</p>
Lakebed Geology Sensitivity	High
Lakebed Geology Composition	andesite dacite diorite phylite (81%), basalt gabbro wacke argillite undifferentiated volcanic rocks (1%), amphibolite hornfels paragneiss undifferentiated metamorphic roc (19%), GC 1+2 (81%), GC 1+2+3 (82%), GC 4+5+6 (18%)
Visitor Use	Not Reported
Mean Annual Precipitation	Not Reported
Elevation Range	1754 - 2545 (meters)
Mean Max Aug Temp	Not Reported
Mean Min Dec Temp	Not Reported
Lake Acres	24
Pond Acres	4
Lake Count	1
Pond Count	10
TES Flora	Castilleja chlorotica, Penstemon glaucinus
TES Wildlife	Not Reported
TES Fish	Not Reported
Ozone Sensitive Plants	Not Reported
Air Quality Sensitive Lichens	Bryoria fremontii, Bryoria fuscescens, Kaernefeltia merrillii, Nodobryoria abbreviata
Cultural Resources	Not Reported
Status/Trends: Acid Deposition:	Not Reported
Status/Trends: Nutrient Enrichment:	Not Reported
Status/Trends: Ozone Impacts:	Not Reported

## **AQRV's**

### **Fauna**

Fauna Priority: Low

Fauna Receptor: Fish

Fauna Indicator: Concentration of methyl mercury

Fauna Trends: Not Reported

### ***Fauna Actions:***

None.

### **Flora**

Flora Priority: High

Flora Receptor: Lichens

Flora Indicator: Changes in community composition

Flora Trends: Not Reported

Flora Priority 2: High

Flora Receptor 2: Lichens

Flora Indicator 2: Concentrations of N, S, P, Cd, Cr, Pb, Hg, Ni, Ti, V and Zn

Flora Trends 2: Not Reported

Flora Priority 3: Medium

Flora Receptor 3: Ozone

Flora Indicator 3: Visible injury on ozone-sensitive plants

Flora Trends 3: Not Reported

### ***Flora Actions:***

Waiting for east-side gradient model for lichen to be scored for community composition. Lichen team is planning repeat visit to monitor for trends in June 2012. This should increase score by 2 points. Conduct surveys for ozone injury to vegetation.

### **Visibility**

Visibility Priority: High

Visibility Receptor: Scenic Views

Visibility Indicator: Regional haze

Visibility Trends: Not Reported

### ***Visibility Actions***

Visibility is represented by the IMPROVE monitor at Crater Lake National Park (CRLA1). Stay abreast of Oregon RH plan to track trends.

### **Water**

Water Priority: Medium

Water Receptor: Water Chemistry

Water Indicator: ANC

Water Trends: Static

Water Priority 2: Medium

Water Receptor 2: Water Chemistry

Water Indicator 2: DIN: TP

Water Trends 2: Not Reported

Water Priority 3: Low

Water Receptor 3: Diatoms

Water Indicator 3: Community Composition

Water Trends 3: Not Reported

***Water Actions:***

Sample water in lake for anions, cations, and nutrients to establish baseline.

**Challenge Points**

***Fauna Challenge Points: 0***

***Flora Challenge Points: 5***

Total Plots: 3

Desired Plots: 1

Additional Plots Needed: -2

Data Type: Baseline

Round 1 Visits: 0

Round 2 Visits: 3

Baseline %: 265

Trends %: 0

***Visibility Challenge Points: 0***

***Water Challenge Points: 0***