

**Mark O. Hatfield Wilderness Air Quality Report**

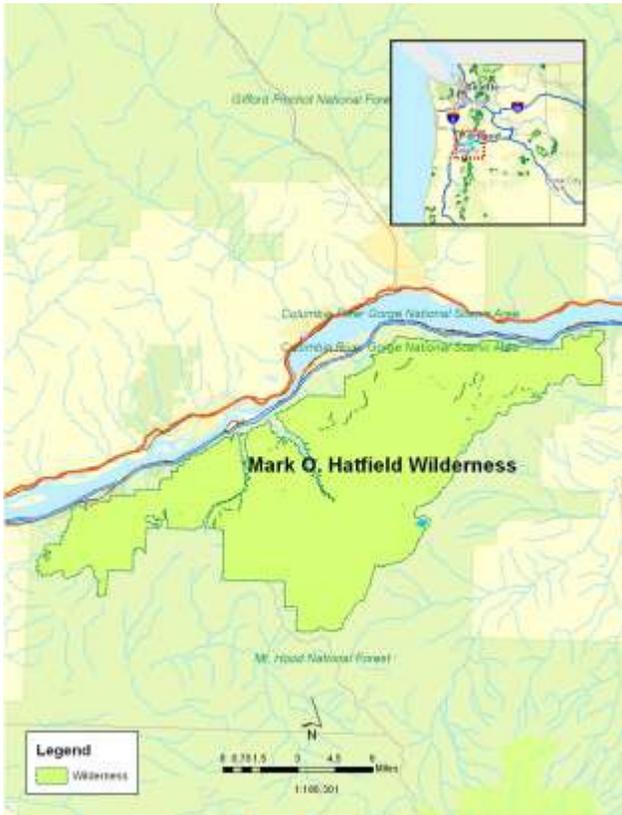
National Forest: Mount Hood National Forest

State: OR

Counties: Hood River, Multnomah

General Location: North Central Oregon Columbia Gorge

Acres: 65,822



# Mark O. Hatfield Wilderness Air Quality Report

Wilderness ID: 205

Wilderness Name: Mark O. Hatfield Wilderness

Wilderness Categories	Information Specific to this Wilderness
Year Established	1984
Establishment Notes	105-76, Omnibus Public Land Management Act of 2009, Oregon Wilderness Act of 1984
Designation	Clean Air Act Class 2
Administrative	Mount Hood National Forest
Unique Landscape Features	Known as the Columbia Gorge Recreation Area prior to Wilderness designation, this area lies just south of the sheer cliffs of the Columbia River Gorge. Most of the land adjacent to the river and along Interstate 84 is privately owned and often developed and, of course, outside the Wilderness boundary. The breaks of the gorge are spectacular basalt cliffs, rocky slopes, and rock outcroppings. Rugged and steep, the slopes of the Wilderness rise to a slightly uneven plateau and on to mountain peaks, talus slopes, and lakes with elevations ranging from approximately 100 feet near the river to 4,900 feet on Mount Defiance. Sparkling waterfalls and mossy-green cliff faces often highlight the deep drainages slashing through the broad, flat ridge tops. The main waterways--Herman Creek, Eagle Creek, and Tanner Creek--flow north toward the river, supporting borders of western hemlock and fir. Most of the 200 miles of trails follow drainages. Approximately 14 miles of the Pacific Crest Trail and the Eagle Creek Trail receive the most use. The Eagle Creek Trail, with seven waterfalls, a tunnel, and designated campsites, can be hiked in a 16-mile-plus loop that hurdles Tanner Butte. Its proximity to Portland translates into lots of people.
Lakebed Geology Sensitivity	High
Lakebed Geology Composition	andesite dacite diorite phyllite (97%), amphibolite hornfels paragneiss undifferentiated metamorphic roc (3%), GC 1+2 (97%), GC 1+2+3 (97%), GC 4+5+6 (3%)
Visitor Use	Not reported in the database.
Mean Annual Precipitation	Not reported in the database.
Elevation Range	25 - 1435 (meters)
Mean Max Aug Temp	Not reported in the database.
Mean Min Dec Temp	Not reported in the database.
Lake Acres	63
Pond Acres	39
Lake Count	1
Pond Count	18
TES Flora	Antitrichia curtispindula, Calicium glaucellum, Chaenotheca brunneola, Chaenotheca subroscida, Cladonia norvegica, Corydalis caseana ssp. aquae-gelidae, Diplophyllum albicans, Douinia ovata, Hypogymnia duplicata, Hypogymnia oceanica, Rhizopogon parksii, Stenocybe major, Streptopus streptopoides, Tauschia stricklandii, Tetraxis geniculata, Ulota megalospora
TES Wildlife	Bald Eagle
TES Fish	Not reported in the database.
Ozone Sensitive Plants	Blue elderberry, California black oak, Evening primrose, Jeffery pine, Mugwort, Ninebark, Ponderosa pine, Quaking aspen, Red alder, Red elderberry, Scoulers willow, Skunkbush, Snowberry, Thinleaf huckleberry

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Air Quality Sensitive Lichens	Alectoria sarmentosa, Bryoria capillaris, Bryoria trichodes, Cavernularia hultenii, Hypogymnia apinnata, Hypogymnia occidentalis, Nodobryoria oregana, Parmelia quarrosa, Parmeliopsis ambigua, Parmeliopsis hyperopta, Peltigera membranacea, Platismatia norvegica
Cultural Resources	Not reported in the database.
Status/Trends: Acid Deposition:	Not reported in the database.
Status/Trends: Nutrient Enrichment:	Not reported in the database.
Status/Trends: Ozone Impacts:	Not reported in the database.

## **AORV's**

### **Fauna**

Fauna Priority: Medium

Fauna Receptor: Fish

Fauna Indicator: Concentration of methyl mercury

Fauna Trends: Not reported in the database.

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

Sample resident fish for mercury. Focus on waters which are most heavily fished by people.

### **Flora**

Flora Priority: High

Flora Receptor: Lichens

Flora Indicator: Changes in community composition

Flora Trends: Not reported in the database.

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 in the database.

Flora Priority 3: Medium

Flora Receptor 3: Ozone

Flora Indicator 3: Visible injury on ozone-sensitive plants

Flora Trends 3: Not reported in the database.

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

Increase number of lichen plots which repeat visits occur from 1 to 3, to obtain the desired 1 plot/20,000 acres density.

Consider conducting surveys of sensitive plants for ozone injury while at the lichen plots.

### **Visibility**

Visibility Priority: High

Visibility Receptor: Scenic Views

Visibility Indicator: Regional haze

Visibility Trends: Not reported in the database.

#### ***Visibility Actions***

Visibility is measured by the IMPROVE monitor at the east end of the Columbia River Gorge (Wishram Site = CORA1).

### **Water**

Thursday, May 17, 2012

Water Priority: Medium

Water Receptor: Water Chemistry

Water Indicator: ANC

Water Trends: Not reported in the database.

Water Priority 2: Medium

Water Receptor 2: Water Chemistry

Water Indicator 2: DIN: TP

Water Trends 2: Not reported in the database.

Water Priority 3: Low

Water Receptor 3: Diatoms

Water Indicator 3: Community Composition

Water Trends 3: Not reported in the database.

***Water Actions:***

Repeat visit to North Lake for ANC and nutrient ratios.

**Challenge Points**

***Fauna Challenge Points: Not reported in the database.***

***Flora Challenge Points: 6***

Total Plots: 14

Desired Plots: 3

Additional Plots Needed: -11

Data Type: Trends

Round 1 Visits: 14

Round 2 Visits: 1

Baseline %: 425

Trends %: 30

***Visibility Challenge Points: Not reported in the database.***

***Water Challenge Points: 7***