

## **Mill Creek Wilderness Air Quality Report**

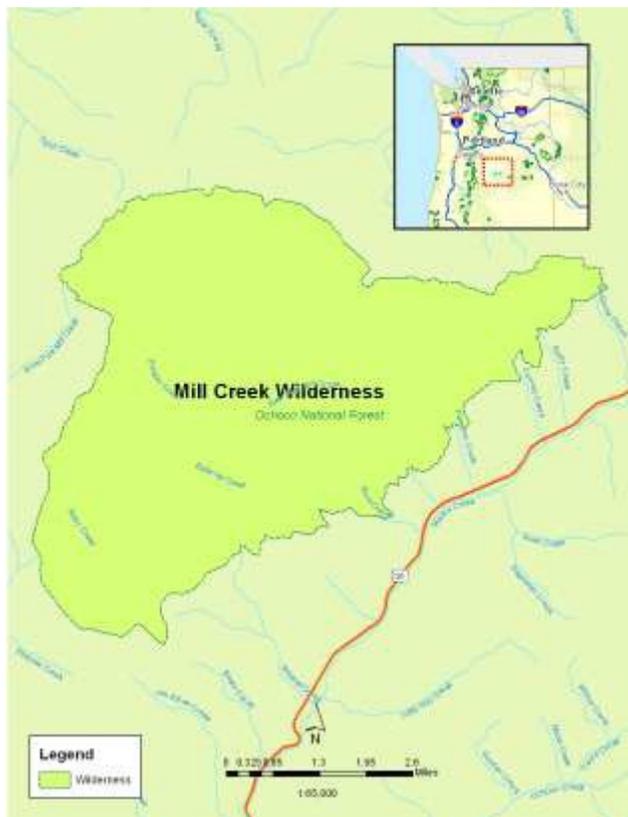
National Forest: Ochoco National Forest

State: OR

Counties: Crook

General Location: Central Oregon

Acres: 17,323



# Mill Creek Wilderness Air Quality Report

Wilderness ID: 221

Wilderness Name: Mill Creek Wilderness

Wilderness Categories	Information Specific to this Wilderness
Year Established	1984
Establishment Notes	Oregon Wilderness Act of 1984
Designation	Clean Air Act Class 2
Administrative	Ochoco National Forest
Unique Landscape Features	<p>The southwest-tending drainage of Mill Creek makes up 85 percent of the Wilderness, with Marks Creek drainage accounting for the difference. Both creeks are tributaries of Ochoco Creek, and home to small trout. The steep, broken ridges that drop into Mill Creek rise to Bingham Prairie in the northwest corner, a virtually flat plateau with open meadows and a lodgepole pine forest. In 2000, a lightning caused wildfire burned over half of the wilderness area. Though much of the fire burned at a stand replacement, high intensity, the area is quickly recovering and there are still some examples of an exemplary climax forest (one that has reached its peak of growth) of ponderosa pine, providing habitat for elk, mule deer, bobcats, mountain lions, and the occasional black bear.</p> <p>Two eroded volcanic plugs distinguish the northwest-central portion: Twin Pillars, with vertical walls rising 200 dramatic feet above the forest, and 400-foot Steins Pillar, just outside the southwestern boundary. North of Twin Pillars lies rugged, rocky Desolation Canyon, aptly named since its lack of trails discourages most human visitors. Summer months are usually hot and dry. Snowfall typically blankets the ground from mid-November through March.</p>
Lakebed Geology Sensitivity	High
Lakebed Geology Composition	gneiss quartzite schist granite (25%), andesite dacite diorite phyllite (40%), basalt gabbro wacke argillite undifferentiated volcanic rocks (30%), Unknown buffering capacity (5%), GC 1+2 (65%), GC 1+2+3 (95%), GC 4+5+6 (5%)
Visitor Use	Not reported in the database.
Mean Annual Precipitation	Not reported in the database.
Elevation Range	1139 - 1903 (meters)
Mean Max Aug Temp	Not reported in the database.
Mean Min Dec Temp	Not reported in the database.
Lake Acres	Not reported in the database.
Pond Acres	Not reported in the database.
Lake Count	Not reported in the database.
Pond Count	Not reported in the database.
TES Flora	Not reported in the database.
TES Wildlife	Not reported in the database.
TES Fish	Not reported in the database.
Ozone Sensitive Plants	Not reported in the database.
Air Quality Sensitive Lichens	Not reported in the database.
Cultural Resources	Not reported in the database.
Status/Trends: Acid Deposition:	Not reported in the database.

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Status/Trends: Nutrient Enrichment:	Not reported in the database.
Status/Trends: Ozone Impacts:	Not reported in the database.

## **AQRV's**

### **Fauna**

Fauna Priority: Low

Fauna Receptor: Fish

Fauna Indicator: Concentration of methyl mercury

Fauna Trends: Not reported in the database.

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

Sample resident fish for mercury.

### **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:***

Conduct repeat visits to lichen plots once every ten years. In addition to lichen collection, also survey sensitive vegetation for indications of injury due to ozone.

### **Visibility**

Visibility Priority: Medium

Visibility Receptor: Scenic Views

Visibility Indicator: Regional haze

Visibility Trends: Not reported in the database.

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

Nearest most representative visibility monitoring site is the IMPROVE monitor located at the Starkey Experimental Forest (STAR1). Refer to the Oregon Regional Haze Plan and the IMPROVE monitoring reports for more details.

### **Water**

Water Priority: Low

Water Receptor: Water Chemistry

Water Indicator: ANC

Water Trends: Not reported in the database.

Water Priority 2: Low

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:***

Collect stream samples and analyze for anions, cations, and nutrients.

**Challenge Points**

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

***Flora Challenge Points:*** 5

Total Plots: 2

Desired Plots: 1

Additional Plots Needed: -1

Data Type: Baseline

Round 1 Visits: 0

Round 2 Visits: 2

Baseline %: 231

Trends %: 0

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

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