

Waldo Lake Wilderness Air Quality Report

National Forest: Willamette National Forest

State: OR

Counties: Lane

General Location: Central Oregon Cascade Range

Acres: 36,572



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Wilderness ID: 214

Wilderness Name: Waldo Lake 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	Willamette National Forest
Unique Landscape Features	Oregon's second-largest body of natural water dwells in a basin scooped out by ancient glaciers, covers 10 square miles (6,700 acres), and is 420 feet deep at some points. On a bright day, you can see 100 feet down into the water, as this is one of the purest lakes left in the world. Waldo Lake lies just outside the eastern boundary of the Wilderness, hinting at the impressive array of beautiful trout-filled lakes scattered within, including the Six Lakes Basin, Eddeleo Lakes, and Quinn Lakes. Here in the High Cascades the terrain is characterized by moderate to steep dissected slopes with many basins, small meadows, and rocky outcroppings peaking at 7,144 feet. Roughly 98 percent of the area stands forested in Douglas fir, western hemlock, western fir, and some true fir. The northern border of Waldo Lake Wilderness is the southern border of the very popular Three Sisters Wilderness.
Lakebed Geology Sensitivity	N/A
Lakebed Geology Composition	Not reported in the database.
Visitor Use	Not reported in the database.
Mean Annual Precipitation	Not reported in the database.
Elevation Range	763 - 2143 (meters)
Mean Max Aug Temp	Not reported in the database.
Mean Min Dec Temp	Not reported in the database.
Lake Acres	412
Pond Acres	591
Lake Count	10
Pond Count	693
TES Flora	Allotropa virgata, Buxbaumia viridis, Craterellus tubaeformis, Gastroboletus subalpinus, Hydnum repandum, Hydrothyria venosa, Marsupella emarginata ssp. emarginata var. aquatica, Marsupella emarginata var. aquatica, Mycocalicium subtile, Ptilidium californicum, Rhizomnium nudum, Rhizopogon abietis, Rhizopogon evadens var. subalpinus, Romanzoffia thompsonii, Scheuchzeria palustris, Schistostega pennata, Thaxterogaster pingue, Utricularia ochroleuca
TES Wildlife	Northern Spotted Owl
TES Fish	Not reported in the database.
Ozone Sensitive Plants	Red elderberry, Snowberry, Thinleaf huckleberry
Air Quality Sensitive Lichens	Alectoria imshaugii, Alectoria sarmentosa, Bryoria capillaris, Bryoria fremontii, Bryoria fuscescens, Bryoria glabra, Cladonia chlorophaea, Cladonia fimbriata, Hypogymnia apinnata, Hypogymnia occidentalis, Kaernefeltia merrillii, Nephroma helveticum subsp. sipeanum, Nodobryoria oregana, Parmeliopsis ambigua, Parmeliopsis hyperopta, Peltigera neopolydactyla, Umbilicaria hyperborea, Vulpicida canadensis
Cultural Resources	Not reported in the database.

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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: Low

Fauna Receptor: Fish

Fauna Indicator: Concentration of methyl mercury

Fauna Trends: Not reported in the database.

Fauna Actions:

Sample fish for mercury in the most heavily fished lakes, either by people or wildlife. Also, collect water quality samples from these lakes while on-site.

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: Low

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 10 years.

Visibility

Visibility Priority: Low

Visibility Receptor: Scenic Views

Visibility Indicator: Regional haze

Visibility Trends: Not reported in the database.

Visibility Actions

None.

Water

Water Priority: High

Water Receptor: Water Chemistry

Water Indicator: ANC

Water Trends: Not reported in the database.

Water Priority 2: High

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Water Receptor 2: Water Chemistry

Water Indicator 2: DIN: TP

Water Trends 2: Not reported in the database.

Water Priority 3: Medium

Water Receptor 3: Diatoms

Water Indicator 3: Community Composition

Water Trends 3: Not reported in the database.

Water Actions:

Repeat visits to Harvey and Moolack Lakes for ANC and nutrient ratios.

Challenge Points

Fauna Challenge Points: Not reported in the database.

Flora Challenge Points: 8

Total Plots: 9

Desired Plots: 2

Additional Plots Needed: -7

Data Type: Trends

Round 1 Visits: 6

Round 2 Visits: 3

Baseline %: 492

Trends %: 164

Visibility Challenge Points: Not reported in the database.

Water Challenge Points: 5