

Badger Creek Wilderness Air Quality Report

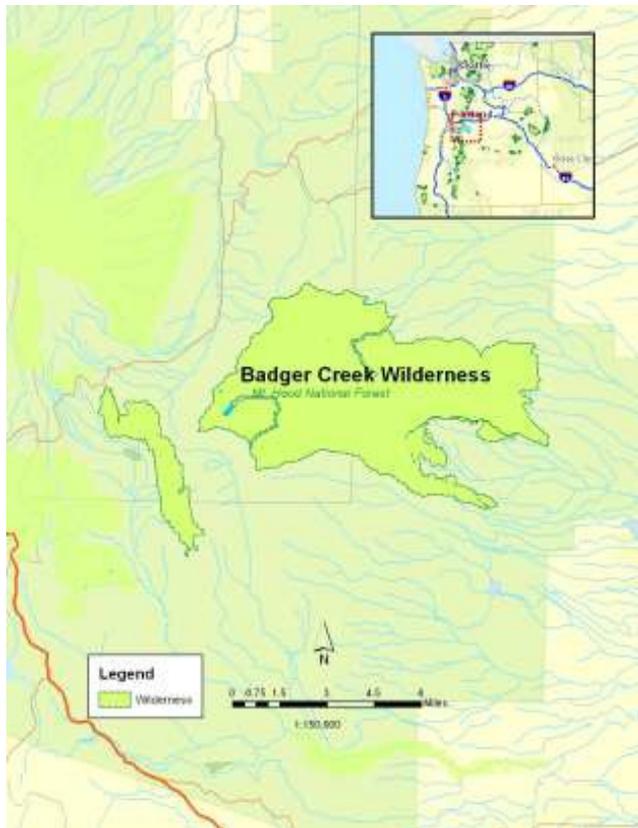
National Forest: Mount Hood National Forest

State: OR

Counties: Hood River, Wasco

General Location: North Oregon Cascade Range

Acres: 29,057



Badger Creek Wilderness Air Quality Report

Wilderness ID: 207

Wilderness Name: Badger Creek Wilderness

Wilderness Categories	Information Specific to this Wilderness
Year Established	1984
Establishment Notes	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	Not reported in the database.
Lakebed Geology Sensitivity	High
Lakebed Geology Composition	gneiss quartzite schist granite (20%), andesite dacite diorite phyllite (78%), basalt gabbro wacke argillite undifferentiated volcanic rocks (2%), GC 1+2 (98%), GC 1+2+3 (100%)
Visitor Use	Not reported in the database.
Mean Annual Precipitation	Not reported in the database.
Elevation Range	658 - 1982 (meters)
Mean Max Aug Temp	Not reported in the database.
Mean Min Dec Temp	Not reported in the database.
Lake Acres	49
Pond Acres	1
Lake Count	2
Pond Count	1
TES Flora	Botrychium minganense, Botrychium montanum, Botrychium pinnatum, Bryoria tortuosa, Buxbaumia viridis, Calicium glaucellum, Castilleja thompsonii, Craterellus tubaeformis, Cypripedium montanum, Leptogium rivale, Rhizomnium nudum, Schistostega pennata
TES Wildlife:	Bald Eagle
TES Fish	Not Reported
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
Air Quality Sensitive Lichens	Alectoria imshaugii, Alectoria sarmentosa, Bryoria capillaris, Bryoria fremontii, Bryoria fuscescens, Bryoria glabra, Bryoria trichodes, Cladonia fimbriata, Hypogymnia apinnata, Hypogymnia occidentalis, Kaernefeltia merrillii, Nodobryoria abbreviata, Nodobryoria oregana, Parmeliopsis ambigua, Parmeliopsis hyperopta, Vulpicida canadensis
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.

AQRV's

Fauna

Fauna Priority: Medium
Fauna Receptor: Fish
Fauna Indicator: Concentration of methyl mercury
Fauna Trends: Not reported in the database.

Fauna Actions:

If the bald eagles, or people, regularly eat fish from the lakes, sample the 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: Low
Flora Receptor 3: Ozone
Flora Indicator 3: Visible injury on ozone-sensitive plants
Flora Trends 3: Not reported in the database.

Flora Actions:

If the bald eagles, or people, regularly eat fish from the lakes, sample the fish for mercury. Contact Linda Geiser lgeiser@fs.fed.us to obtain trends analysis for community composition and elements. Upon return visits for lichens, consider surveying for ozone injury to sensitive vegetation species during the same field visit.

Visibility

Visibility Priority: Not reported in the database.
Visibility Receptor: Scenic Views
Visibility Indicator: Regional haze
Visibility Trends: Decrease

Visibility Actions

Rely upon the Mt. Hood IMPROVE monitoring data as representative of visibility in this wilderness. Track trends.

Water

Water Priority: Medium
Water Receptor: Water Chemistry
Water Indicator: ANC
Water Trends: Not reported in the database.
Water Priority 2: Not reported in the database.
Water Receptor 2: Water Chemistry
Water Indicator 2: DIN: TP
Water Trends 2: Not reported in the database.
Water Priority 3: Not reported in the database.

Water Receptor 3: Diatoms

Water Indicator 3: Community Composition

Water Trends 3: Not reported in the database.

Water Actions:

Consider collecting water chemistry samples from the two lakes in the Wilderness to establish baseline for acid neutralization capacity and nutrient limitations (DiN:TP).

Challenge Points

Fauna Challenge Points: Not reported in the database.

Flora Challenge Points: 8

Total Plots: 5

Desired Plots: 1

Additional Plots Needed: -4

Data Type: Trends

Round 1 Visits: 5

Round 2 Visits: 3

Baseline %: 344

Trends %: 206

Visibility Challenge Points: Not reported in the database.

Water Challenge Points: Not reported in the database.