

Pasayten Wilderness Air Quality Report

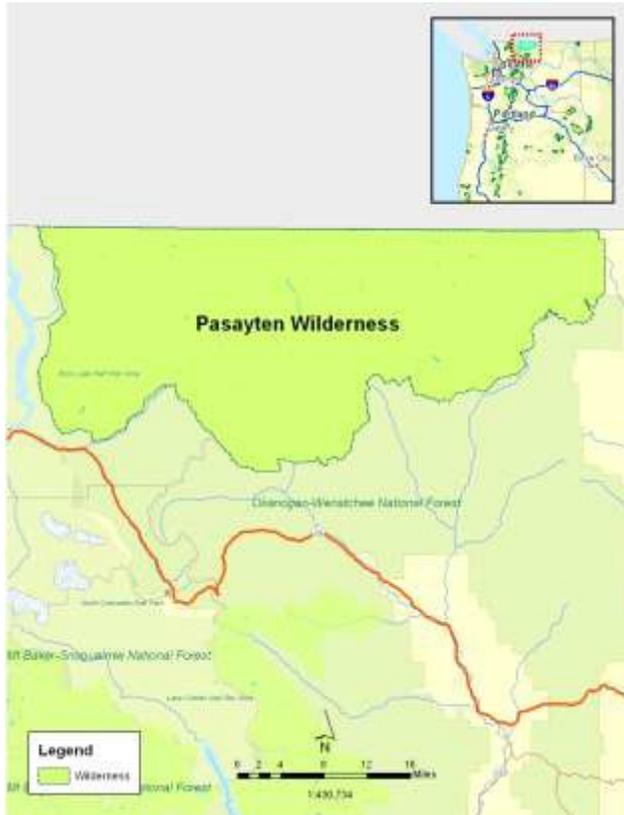
National Forest: Mount Baker National Forest, Okanogan National Forest, Snoqualmie National Forest, Wenatchee National Forest

State: WA

Counties: Okanogan, Whatcom

General Location: Northern Washington Cascade Range

Acres: 531,539



Pasayten Wilderness Air Quality Report

Wilderness ID: 089

Wilderness Name: Pasayten Wilderness

Wilderness Categories	Information Specific to this Wilderness
Year Established	1968
Establishment Notes	90-544, Washington State Wilderness Act of 1984
Designation	Clean Air Act Class 1
Administrative	Mount Baker-Snoqualmie National Forest, Okanogan-Wenatchee National Forests
Unique Landscape Features	<p>Skirting more than 50 miles of Canada's border and encompassing the crest of the Cascades, this big piece of very wild country is home to the largest population of lynx in the Lower 48. The Wilderness boasts almost 150 peaks over 7,500 feet in elevation, 160 or more bodies of water, and at least as many waterways, some fierce enough to have carved incisive canyons with sheer walls. Rugged ridges in the west flatten into park-like plateaus toward the east, with deep drainages on both sides. Its diverse forest changes from vegetation typical of western Washington (fir, cedar, western hemlock) to growth typical of eastern Washington (fir, pine, larch).</p> <p>Deer, moose, mountain goats, bighorn sheep, the fabled gray wolf, and the intimidating grizzly bear steal through these woods. Snow falls between October and May, and the hardpack may block the high western-side trails sometimes until early August. Eastern-side trails are usually free of snow by early July. Although part of the Wilderness lies in Mount Baker-Snoqualmie National Forest, the largest section (and its management) falls within the boundaries of Okanogan National Forest.</p>
Lakebed Geology Sensitivity	Low
Lakebed Geology Composition	andesite dacite diorite phyllite (48%), basalt gabbro wacke argillite undifferentiated volcanic rocks (1%), amphibolite hornfels paragneiss undifferentiated metamorphic roc (51%), GC 1+2 (48%), GC 1+2+3 (49%), GC 4+5+6 (51%)
Visitor Use	Not reported in the database.
Mean Annual Precipitation	Not reported in the database.
Elevation Range	571 - 2741 (meters)
Mean Max Aug Temp	Not reported in the database.
Mean Min Dec Temp	Not reported in the database.
Lake Acres	279
Pond Acres	397
Lake Count	12
Pond Count	195

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TES Flora	Agoseris elata, Agrostis mertensii, Albatrellus flettii, Botrychium ascendens, Botrychium hesperium, Botrychium minganense, Botrychium paradoxum, Brodoa oroarctica, Carex atosquama, Carex heteroneura, Carex heteroneura var. epapillosa, Carex magellanica, Carex magellanica ssp. irrigua, Carex norvegica, Carex norvegica ssp. inferalpina, Carex physocarpioides, Carex proposita, Carex scirpoidea ssp. scirpoidea, Carex tenuiflora, Clavariadelphus ligula, Clavariadelphus sachalinensis, Clavariadelphus truncatus, Clavicornia avellanea, Clavulina cristata, Cortinarius olympianus, Craterellus tubaeformis, Dermatocarpon luridum, Draba aurea, Draba breweri var. cana, Erigeron salishii, Eriophorum viridicarinatum, Galerina atkinsoniana, Gentiana glauca, Gentianella tenella, Geum rivale, Gyromitra californica, Gyromitra esculenta, Gyromitra gigas, Gyromitra infula, Gyromitra montana, Helvella elastica, Hydnum repandum, Luzula arcuata, Luzula arcuata ssp. unalascensis, Mycena overholtsii, Omphalina ericetorum, Otidea leporina, Oxytropis monticola, Plectania milleri, Polemonium viscosum, Polyozellus multiplex, Potentilla diversifolia var. perdissecta, Potentilla nivea, Ptilidium californicum, Pulsatilla patens ssp. multifida, Ramaria aurantiiscescens, Ramaria gracilis, Rhizomium nudum, Salix glauca, Salix tweedyi, Sarcodon imbricatus, Sarcosoma mexicana, Sarcosphaera eximia, Saxifraga cernua, Schistostega pennata, Spiranthes porrifolia, Thaxterogaster pingue, Tholurna dissimilis, Tritomaria quinquentata
TES Wildlife	Canada Lynx, Gray Wolf, Northern Spotted Owl
TES Fish	bull trout
Ozone Sensitive Plants	Blue elderberry, Ponderosa pine, Quaking aspen, Red elderberry, Scoulers willow, Snowberry, Thinleaf huckleberry
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.
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:

Sample resident fish for mercury at lakes most frequently fished by people. 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:

Need to substantially increase the number of lichen plots from 2 to 27 in order to achieve the desired density of 1 plot per 20,000 acres. Field visit is scheduled for September 2012 to achieve this. Repeat visits should be conducted once every 10 years.

Visibility

Visibility Priority: High

Visibility Receptor: Scenic Views

Visibility Indicator: Regional haze

Visibility Trends: Decrease

Visibility Actions

The Pasayten IMPROVE visibility monitor (PASA1) is located at the top of the Loop Loop Ski Area. Refer to the Washington Regional Haze Plan and the IMPROVE monitoring report for details.

Water

Water Priority: High

Water Receptor: Water Chemistry

Water Indicator: ANC

Water Trends: Not reported in the database.

Water Priority 2: High

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 visit to Black, Jerry (North), Lease, No Name, Sheep, White (North) Lakes and Lake of the Pines for ANC and nutrient ratios.

Challenge Points

Fauna Challenge Points: Not reported in the database.

Flora Challenge Points: 4

Total Plots: 2

Desired Plots: 27

Additional Plots Needed: 25

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Data Type: Baseline

Round 1 Visits: 0

Round 2 Visits: 2

Baseline %: 8

Trends %: 0

Visibility Challenge Points: Not reported in the database.

Water Challenge Points: 5