

Young Volcanoes and Old Forests

Cascades Ecoregion

The Oregon portion of the Cascades Ecoregion encompasses 7.2 million acres and contains the highest mountains in the state. The Cascades Ecoregion is the backbone of Oregon, stretching lengthwise from the Columbia River Gorge almost to the California border. Its width is defined by the Willamette Valley and Klamath Mountains Ecoregions on the west and the Eastern Cascade Slope and Foothills Ecoregion on the east. The highest peak is Mount Hood (11,239'). This ecoregion also extends northward into Washington and has three unusual outlier terrestrial "islands:" Paulina Mountains southeast of Bend, Black Butte near Sisters and Mount Shasta in California.

Geologically, the ecoregion consists of two mountain ranges: the High Cascades and the Western (sometimes called "Old") Cascades. Both are parallel north-south ranges, but they are geologically distinct, as one is much older than the other.

The High Cascades are long ridges and plateaus with steep slopes and wide glaciated valleys that retain heavy winter snowpacks, especially in the north. Numerous snow-capped volcanic peaks, both active and dormant, range from 7,000 to 11,239 feet in elevation. The High Cascades are about eight million years old. About 85 percent of the range is basalt.

Can you name the Oregon High Cascades volcanic peaks from north to south? How about their elevations? The Oregon Cascade peaks above 7,000-feet in elevation that are *not* protected in national parks or designated Wilderness are: Mount Bachelor (9,065'), Mount Bailey (8,363'), North Paulina Peak (7,686'), Pelican Butte (8,036'), Paulina Peak (7,984'), Maiden Peak (7,818'), Tumalo Mountain (7,775'), Cowhorn Mountain (7,664') and Olallie Butte (7,215').

The Western Cascades have steep ridges and river valleys, and peaks that average 4,000 to 5,600-feet in elevation. Although a combination of erosion and vegetative cover makes their origins less apparent than that of the High Cascade peaks, the Old Cascades were also shaped by volcanism.

The moist temperate climate here is supported by 50 to 150 inches of precipitation annually. These mountains and high valleys were once covered by old-growth forests. Today 95 percent of the ecoregion's remaining old growth is above 2,000 feet elevation and is generally fragmented by logging. Subalpine meadows are also found at the higher elevations.

Some 10,000 species of plants, animals and fungi are associated with these old-

growth forests. These include Roosevelt elk, black-tailed deer, beaver, black bear, coyote, marten, fisher, cougar, raccoon, rabbits, squirrels and (probably) lynx. Bird species include the northern spotted owl and other owls, blue and ruffed grouse, band-tailed pigeon, mountain quail, hawks, numerous songbirds, pileated woodpecker and other woodpeckers, bald eagle, golden eagle, osprey and peregrine falcon. Fish species include Pacific salmon stocks, bull trout and rainbow trout. Five of the eleven species endemic to the ecoregion are amphibians: Pacific giant salamander, Cascade seep salamander, Oregon slender salamander, Larch Mountain salamander and the Cascades frog.

The effects of latitude on forest type are obvious in the Cascades as they range from the Columbia River to the California border. The effects of elevation are dramatic as well.

Beginning at the Willamette Valley margin and heading both eastward and upward, one finds **Douglas-fir/Oregon White Oak** forests that are typical of the valley margins that were once shaped by fires set by Native Americans and early settlers.

Just up slope from the Douglas-fir/Oregon White Oak forests are **Douglas-fir/Broadleaf Deciduous** forests where, on the wetter sites, red alder and bigleaf maple are also found.

As the elevation continues to rise, **Douglas-fir/Western Hemlock** — Oregon's most common forest type — dominates the western or Old Cascades. Grand fir, red alder and bigleaf maple are important components, the latter two especially along streams. Western redcedar also occurs in many areas.

Silver Fir/Western Hemlock/Noble Fir forests represent a transition between Douglas-fir/Western Hemlock and Mountain Hemlock forests (described next). This forest type extends south to the Rogue-Umpqua Divide, but is mostly found north of Diamond Peak to south of Mount Hood in the Warm Springs and Clackamas River drainages.

Higher still, **Mountain Hemlock** forests dominate the High Cascades from Mount Hood south to the California border. Pure stands of mountain hemlock are often found North of Willamette Pass, in some places mixed with whitebark pine.

On the highest slopes of the High Cascades the forest opens toward timberline and is characterized by **Mountain Hemlock/Parklands** and on the mountain ridges, whitebark pine. Trees here take on a dwarf scrub form, shaped by the wind. Although **Subalpine Fir/Engelmann Spruce Parklands** are more common in Oregon's Blue Mountains, a few patches of this Rocky Mountain forest type are found in the Cascades.

Ecoregions of Oregon's Cascades

The mountains of the Cascades are widely underlain by Cenozoic volcanic rocks and have been affected by alpine glaciation. Maximum elevations of up to 11,239 feet occur on active and dormant volcanic peaks in the eastern part of the ecoregion. The western Cascades are older, lower and dissected by numerous, steep-sided stream valleys. The Cascades have a moist, temperate climate that supports an extensive and highly productive coniferous forest that is intensively managed for logging. Subalpine meadows occur at high elevations.

Further refining the ecoregion, scientists divide Oregon's Cascade Range Level III Ecoregion into seven additional Level IV ecoregions:

The **Western Cascades Lowlands and Valleys** ecoregion includes the lower slopes of the Cascades. Its mild, wet climate promotes lush western hemlock — Douglas-fir forests. Soils are warmer than in higher elevation ecoregions. The steep valleys contain high gradient rivers and streams that support cold water salmonids, including the threatened chinook salmon, steelhead and bull trout. Reservoirs store winter snow melt for irrigation and municipal water supply in the Willamette Valley.

The **Western Cascades Montane Highlands** are composed of steeply sloping, dissected mountains between about 3,000 and 6,500 feet elevation. The western Cascades are older and more eroded than the lava plateau and prominent snow-covered cones of the High Cascades (the Cascade Crest Montane Forest and Cascades Subalpine/Alpine Ecoregions); they are composed of dark basalt in contrast to the gray andesite of the High Cascades. The Western Cascades Montane Highlands has lower temperatures and receives more winter snow than the Western Cascades Lowlands and Valleys. Soils have frigid or cryic temperature regimes, in contrast to the mesic temperature regime of soils in the Western Cascades Lowlands and Valleys. Abundant precipitation supports forests dominated by Douglas-fir, western hemlock, noble fir and Pacific silver fir.

The **Cascade Crest Montane Forest** ecoregion consists of an undulating plateau punctuated by volcanic mountains and lava flows. Volcanism in the Pliocene epoch overtopped the existing Miocene volcanics of the Western Cascades Montane Highlands. Later Pleistocene glaciation left numerous naturally-fishless lakes. Today, this ecoregion contains forests dominated by mountain hemlock and Pacific silver fir. It has a shorter summer

drought and fewer intermittent streams than the High Southern Cascades Montane Forest.

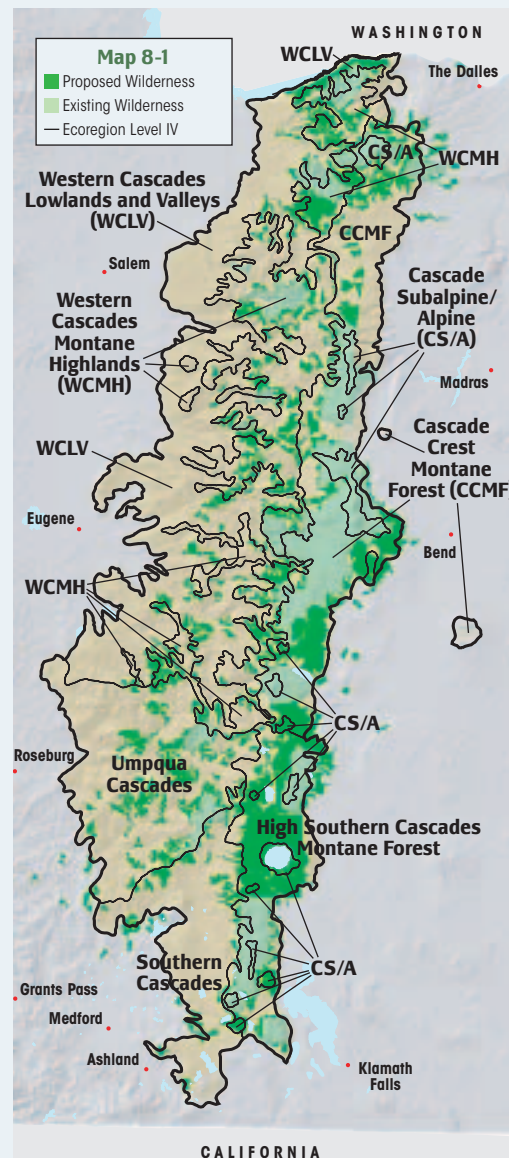
The **Cascades Subalpine/Alpine** ecoregion contains the prominent volcanic peaks of the High Cascades. Pleistocene glaciation reshaped the mountains above 6,500 feet, leaving moraines, glacial lakes and U-shaped glacial canyons. Glaciers and permanent snowfields still occur on the highest peaks. The vegetation is adapted to high elevations, cold winter temperatures, short growing season and deep winter snow pack. Herbaceous subalpine meadow vegetation and scattered patches of mountain hemlock, subalpine fir and whitebark pine occur near timberline.

The **High Southern Cascades Montane Forest** ecoregion is an undulating, glaciated, volcanic plateau containing isolated buttes, cones and peaks. The terrain is less dissected than the Southern Cascades. At 4,000 to 8,200 feet, maximum elevations are intermediate to those in the Southern Cascades and the Cascades Subalpine/Alpine ecoregions. Cryic soils support mixed coniferous forests dominated by mountain hemlock, lodgepole pine and Pacific silver fir; they are colder than the mesic and frigid soils of the Southern Cascades. Grand fir, white fir and Shasta red fir also occur and become more common toward the south and east. The High Southern Cascades Montane Forest has a longer summer drought and more intermittent streams than the Cascade Crest Montane Forest.

The **Southern Cascades** ecoregion is lower in elevation and less rugged than the more highly dissected Western Cascades Montane Highlands to the north. Mt. McLoughlin, at 9,500 feet, is the highest peak in this ecoregion. The climate is drier than in the Western Cascades Lowlands and Valleys and the Western Cascades Montane Highlands and the vegetation reflects it. Western hemlock and western red cedar, which are indicator species of the Western Cascades Lowlands and Valley and the Western Cascades Montane Highlands Ecoregions,

decline southward in the Southern Cascades Ecoregion and are replaced by Sierra Nevada species such as incense cedar, white fir and Shasta red fir that tolerate prolonged summer drought. Overall, river and stream discharge is also significantly lower than in systems to the north.

Text gratefully adapted from Thor D. Thorson, Sandra A. Bryce, Duane A. Lammers, Alan J. Woods, James M. Omerik, Jimmy Kagan, David E. Pater, Jeffrey A. Comstock. 2003. Ecoregions of Oregon (color poster with map, descriptive text, summary tables and photographs). USDI-Geological Survey. Reston, VA (map scale 1:1,500,000).





CASCADES ECOREGION

Above timberline are **Alpine Barren Fell Fields** where low herbaceous, dwarf shrub and cushion plant communities grow, but which are snow-covered most of the year. Also usually covered with snow is the **Open Lava** found along the high crest, which is mostly bare rock, except for lichens and the occasional mountain hemlock, Douglas-fir and vine maple.

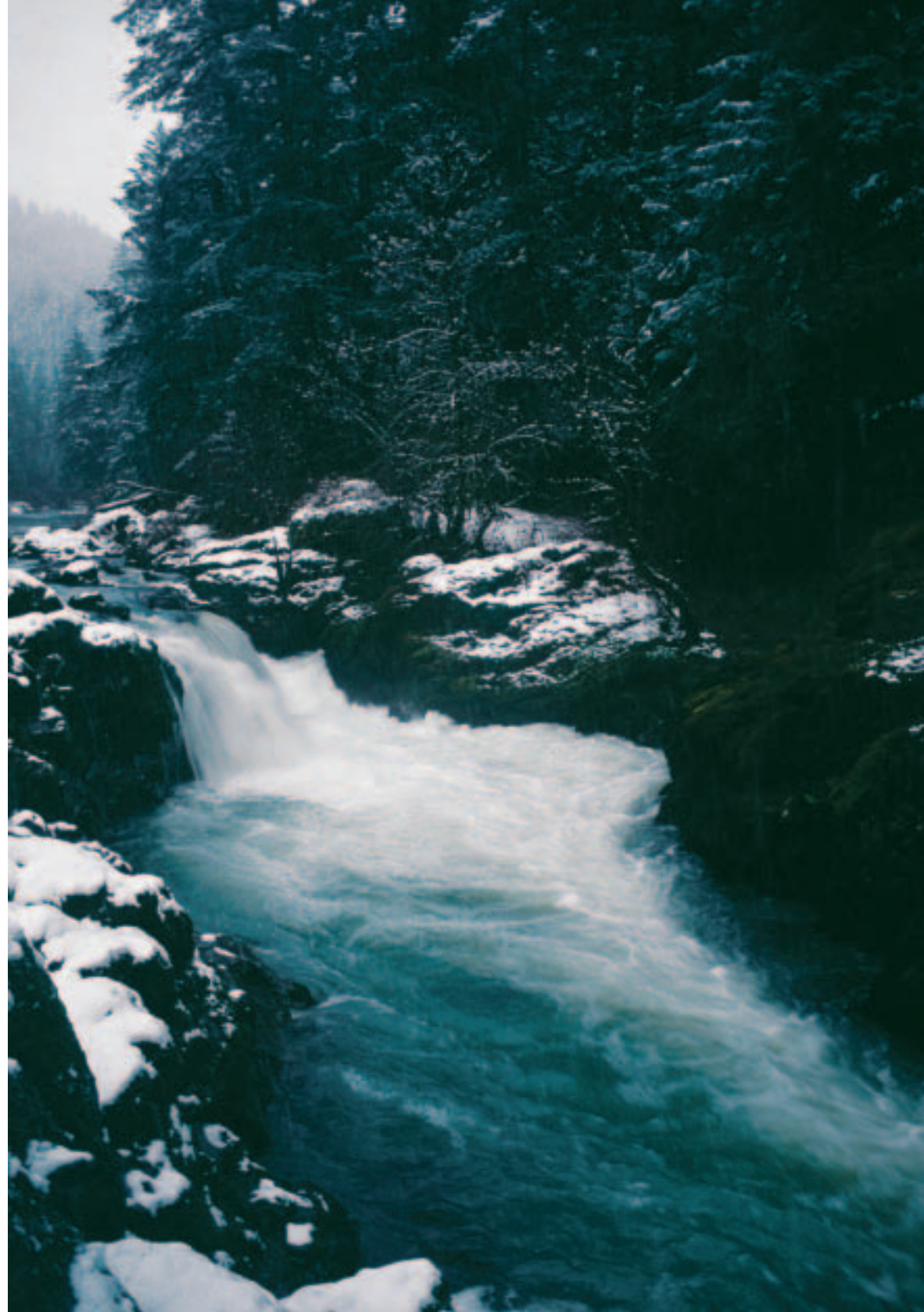
Over the crest and moving down the eastern slope, one will find **Subalpine Lodgepole** and **Lodgepole** forests. Both are naturally occurring monocultures, with the latter occurring on poorly drained and very coarse soils. If the **True Fir/Lodgepole** forests that grow at this altitude are undisturbed for long enough, the true fir will eventually overtop the lodgepole pine.

Farther downslope are varying mixes of forest types that feature ponderosa pine, true firs, Douglas-fir and the occasional western larch. **Ponderosa/Douglas-fir/True Fir** is common in the eastern part of the northern Cascades. Lower in elevation are **Ponderosa/Douglas-fir/Western Larch/Lodgepole** (western larch is minor and scattered in this forest type) and **True Fir/Lodgepole/Western Larch/Douglas-fir** forests. Along the lowest edges of the eastern side of the Cascades Ecoregion are some nearly pure stands of **Ponderosa** pine forest and **Ponderosa on Pumice**. **Ponderosa/Lodgepole** forest stands are often a sharp mosaic of the two species, as lodgepole is more tolerant of pumice soils and frost pockets.

The southern Cascades and northern Cascades in Oregon differ significantly. **Mountain Hemlock/Red Fir** forests — which may be intermingled with Douglas-fir, western white pine and white fir — are common from Three Sisters south to Aspen Butte. On the lower western slopes of the southern Cascades (south of the Rogue-Umpqua Divide) are stands of **Siskiyou Mixed Conifer** with varying combinations of Douglas-fir, sugar pine, ponderosa pine, incense cedar and white fir. Also common here are bigleaf maple, Pacific madrone and western white pine. On wetter sites grow western redcedar and western hemlock. **Siskiyou Mixed Evergreen** forest, similar to the Mixed Conifer variety, except with a greater broadleaf tree component, is also found here. Another variant is the **Siskiyou Mixed Conifer-High Elevation** type that grows along the Rogue-Umpqua Divide and has more white fir and less Douglas-fir, sugar, ponderosa pine and western white pine. One will also find Shasta red fir and lodgepole pine in the Cascades variant of this Klamath Mountains Ecoregion forest type.

Between Mount Hood and the lower Deschutes River (but also in the southern Oregon Cascades) are stands of **Oregon White Oak/Ponderosa**, a variant of the **Oregon White Oak/Douglas-fir** and **Oregon White Oak/Pacific Madrone** forest-types, where incense cedar may also occur. Even more rare is the **Ponderosa/Oregon White Oak** combination that grows in this region. Moving east toward the Blue Mountains Ecoregion, below timberline or interspersed as stringers with other forest

The Upper Clackamas River in the proposed Clackamas Wilderness. ►



types, one will find **Big Sage/Shrub**, **Big Sagebrush** and **Grasslands/ Bunchgrass** communities.

Throughout the Cascades, tufted hairgrass and sedge typically dominate the **Marsh/Wet Meadow** areas.

At some time in their existence, most forest communities will be set back to early successional forest and are classified as **Cutover/Burned** forest. This can occur naturally — from lightning-caused wildfires, native insect or disease events, or blow-down by wind — or unnaturally, by way of logging, human-caused fire, human-caused blowdown (due to unnatural and vulnerable forest edges caused by clearcuts), non-native disease and insects, or aggressive fire-fighting. Particularly troubling are “backburns,” where firefighters intentionally burn the forest in front of an oncoming wildfire. In many cases, the backburns are far more intense and destructive than the natural burn would have been.

Presently, 74 percent of the Oregon’s Cascades Ecoregion is federally owned public land. Major federal holdings include the Willamette, Umpqua, most of the Mount Hood, Rogue River and portions of the Deschutes and Winema National Forests; the eastern parts of the BLM Medford, Roseburg, Eugene and Salem Districts; and Crater Lake National Park.

To date there are eleven Wilderness areas (Mark. O. Hatfield, Mount Hood, Salmon-Huckleberry, Table Rock, Bull-of-the-Woods, Opal Creek, Middle Santiam, Menagerie, Waldo Lake, Boulder Creek and Rogue-Umpqua Divide) and portions of eight others (Badger Creek, Mount Jefferson, Mount Washington, Three Sisters, Diamond Peak, Mount Thielsen, Sky Lakes and Mountain Lakes) designated in Oregon’s Cascades, comprising 13.7 percent of the ecoregion.

Conservationists propose eleven new multi-unit Wilderness areas: Clackamas, Columbia River Gorge, McKenzie, Mount Hood Additions, North Umpqua, Rogue-Umpqua, Santiam, South Cascades, Three Sisters Additions, Upper Deschutes and Upper Willamette. If designated, these areas would protect a total 34.1 percent of the ecoregion as Wilderness.

Proposed Clackamas Wilderness

Very Large Trees, Pacific Salmon and Clean Drinking Water

Roads, clearcuts and dams have decimated much of the once pristine Clackamas River Watershed. Yet wildlands (both large and small) and wild rivers (both rapid and

ELIZABETH FERYL ENVIRONMENTAL IMAGES



Old growth Douglas-fir (*Pseudotsuga menzeisii*) in the Big Bottom Unit of the proposed Clackamas Wilderness.

slow) persist here despite the surrounding development and devastation. Together, these wild areas maintain the ecological function of the upper Clackamas River Basin. Protecting these areas, and the judicious restoration of the roaded and logged forests nearby (and removal of some unnecessary dams), will allow the Clackamas River Basin to once again provide a full compliment of ecosystem goods and services to human and fish and wildlife communities, including clean, plentiful water, biological diversity, abundant habitat and endless forms of sustainable recreation.

The Clackamas River arises on Olallie Butte at 6,000 feet elevation. Although the headwaters receive 130 inches of precipitation annually, these streams are dry at their source in late fall. The headwaters are eventually joined by springs downstream to create an annual flow that joins the Willamette River at Oregon City. Along the way, major tributaries entering the Clackamas within the boundaries of the Mount Hood National Forest include the Collawash River, Oak Grove Fork of the Clackamas River, Roaring River, Fish Creek and South Fork Clackamas River. The North Fork Clackamas River and Eagle Creek join the mainstem Clackamas downstream from the forest boundary. A segment of the Clackamas River is protected as part of the National Wild and Scenic Rivers System, from its source at Big Springs to Big Cliff near the national forest boundary. It is also the primary source of drinking water for 190,000 Clackamas County residents.

At lower elevations (which receive 60 inches of precipitation annually), the forests are dominated by dense, lush Douglas-fir with some western hemlock found in the understory. As the elevation increases, the forest changes to Pacific silver fir, lodgepole

LEVEL IV ECOREGIONS

Western Cascades Montane Highlands (49%), Cascade Crest Montane Forest (25%), Western Cascades Lowlands and Valleys (25%)

VEGETATION TYPES

Douglas-fir/Western Hemlock (58%), Silver Fir/Western Hemlock/Noble Fir (18%), Subalpine Lodgepole (12%), Mountain Hemlock (10%), Cutover/Burned (1%), Douglas-fir/Broadleaf Deciduous (<1%)

DRAINAGE SUBBASINS

Clackamas, Molalla

ELEVATION RANGE

801-6,358 feet

UNITS

Big Bottom, Black Wolf Meadows, Bob Meadow, *Bull-of-the-Woods/Opal Creek Additions* (Elk Lake, Dickey Peak, East Fork Collawash River, Hot Springs Fork, Nasty Rock, North Whetstone Creek), Bump Creek, Burnt Granite, Cottonwood Meadows, Ed's Meadow-Clackamas River, Fish Creek, Hawk Mountain, Memaloose Lake, Mistletoe-Clackamas River, Molalla Headwaters, Monon Lake, North Pinhead Butte, Oak Grove Fork, Olallie Meadow-Lemiti Butte, *Olallie Lakes*, Pyramid Lake, Roaring River, *Salmon-Huckleberry Additions* (Eagle Creek, North Fork Clackamas River Headwaters), Scorpion Mountain, Sisi Butte, Slow Creek, South Fork Clackamas River, Summit Lake, Summit Lake, *Table Rock Additions* (North Additions, South Additions), West Pinhead Butte

EXISTING WILDERNESSES INCORPORATED

Bull-of-the-Woods, portion of Salmon-Huckleberry, Table Rock

SIZE

107,617 acres (168 square miles, not including 42,339 acres of currently protected Wildernesses)

COUNTIES

Clackamas, Jefferson, Marion, Wasco

FEDERAL ADMINISTRATIVE UNITS

Mount Hood and Willamette National Forests; BLM Salem District

CONGRESSIONAL DISTRICTS

2nd, 3rd, 5th

Proposed Clackamas Wilderness

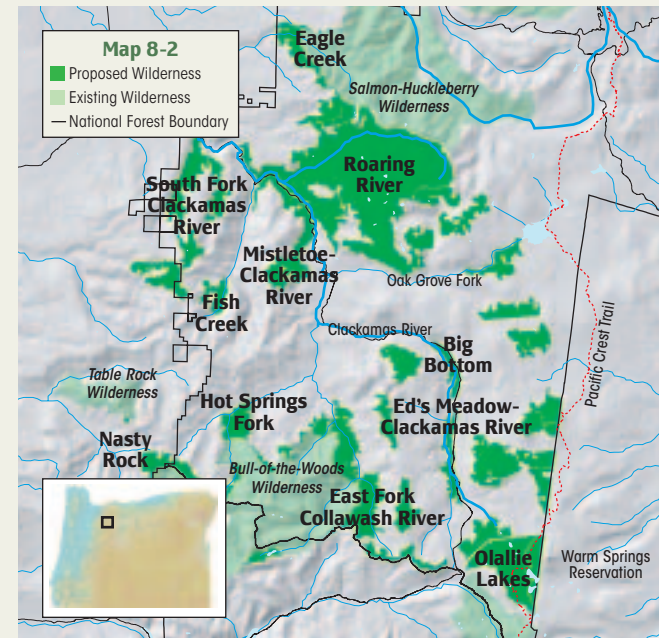
Some of the units in the proposed Wilderness are highlighted below.

Big Bottom features some of the most extensive and impressive stands of large trees in Oregon. The area's Douglas-fir, western hemlock, grand fir and western redcedar (including Oregon's largest at nearly 12-feet in diameter at the base) are simply awe-inspiring. Pacific yew is also common here. Big Bottom is both low in elevation and flat, a landform that very rarely has any virgin forest left (because it's so easy to log). The old-growth forest protects the forest floor from accumulating three to four feet of snow, as the adjacent clearcuts do, thereby providing critical wintering habitat for deer and elk. At least two pairs of northern spotted owls make their home in Big Bottom. Four pristine miles of the Clackamas River flow through the unit in braided channels full of large woody debris. The large logjams and numerous beaver dams provide perfect habitat for fish. The holding pools and deep troughs of spawning gravel make this stretch of the river the most productive, complex and diverse fish habitat on the Clackamas. The largest remaining concentration of the cold water corydalis (*Corydalis aquae-gelidae*) on the Clackamas River is found here, thriving in the cold water and shade.

Eagle Creek has been the site of a major logging controversy. The Forest Service sold timber sales here, proudly noting that their logging plans were a model of the Northwest Forest Plan's "new forestry." However, when Congress enacted the "salvage rider" in 1995 the courtroom door was closed to citizens seeking to hold the Forest Service accountable to the law and parts of the area were logged. Citizens responded by personally occupying trees ("tree sitting") in the remaining unlogged sale units for three years. Eventually, even the timber company that had purchased the sales became convinced that it would cause too much ecological damage to log it and requested release from their contract. An independent scientific panel also raised serious questions about the sales. Finally, under pressure from citizen activists, scientists and decisionmakers — including six members of Congress led by Senator Ron Wyden — the Forest Service withdrew the sales, including those planned for this roadless area.

Ed's Meadow-Clackamas River and **Mistletoe-Clackamas River** both include roadless habitats along the Clackamas River.

The **East Fork of the Collawash River**, **Hot Springs Fork** and **Nasty Rock** units all should have been included in the Bull-of-the-Woods Wilderness when it was designated in 1984, but were left out due to timber conflicts.



Fish Creek supports more wild steelhead than any other tributary of the Clackamas River.

Olallie Lakes contains the headwaters of the Clackamas, Warm Springs (Deschutes Basin) and Breitenbush (Santiam Basin) Rivers, as well as over 200 lakes and ponds in an extensive system of wetlands. It is a high elevation plateau dotted with several cinder cones and other unique geological landforms. Otter, eagle and mink can often be seen here. The unit is optimal habitat for black-backed and three-toed woodpeckers and, potentially, the great grey owl. The Pacific Crest National Scenic Trail passes through the unit.

Roaring River is featured on page 121.

The **South Fork Clackamas River** unit includes Memaloose Creek. For centuries, these steep, wet and rocky slopes have protected hundreds of acres of old-growth forest from fire. Beneath the overstory of old-growth Douglas-fir, western hemlock and western redcedar are 400-year old Pacific yew trees. The astounding quantity of moss and lichens on trees, logs and rocks is evidence of the area's long period of stream, soil and forest stability.

GEORGE WUERTINER



Shellrock Lake in the Roaring River Unit of the proposed Clackamas Wilderness.

FEATURED UNIT

Roaring River

The Roaring River watershed is the largest unprotected oasis of wildlands on the Mount Hood National Forest.

The Roaring River begins on Signal Buttes at 5,000 feet in elevation, falls over 4,000 feet and flows for fifteen miles before joining the Clackamas River. The upper watershed is a broad glacial valley with slopes covered with a mosaic of forest, talus meadows and lakes. The lower four miles of the river flow through a narrow gorge past basalt cliffs and more talus slopes, while the lowest portion of the river flows through a nearly flat valley bottom.

Much of the Roaring River watershed is covered with snow for five to seven months each year. Several prominent Old Cascades peaks offer sweeping views of the area, including distant High Cascades peaks. The peaks tower over numerous jewel-like (and trout-filled) lakes including Huxley, Rock, Shining and Serene Lakes and their associated wet meadows. The lakes here are so numerous that many are unnamed.

The lowest elevation canyon bottoms are forested with old-growth Douglas-fir, bigleaf maple, western redcedar and red alder

with vine maple in the understory. As elevations increase, the forest changes to mountain hemlock, Pacific silver fir and noble fir with some Engelmann spruce, western white pine and lodgepole pine. Sitka alder can be found along the upper river. Interspersed among the higher elevation forests are wet and dry mountain meadows, talus, hardwood shrub thickets and rocky cliffs with bear grass, rhododendron and huckleberry in the understory.

Wildlife species abound and include badger, fisher, cougar, marten, northern spotted owl, beaver, pika, Townsend's chipmunk, brush rabbit, golden-mantled ground squirrel, Douglas squirrel, porcupine, mink, weasel, mountain lion, bald eagle, osprey, black bear, coyote and pileated woodpecker. The lower portions of the watershed are winter

range for black-tailed deer and Roosevelt elk.

The pristine watershed with its cool, clean water supports strong runs of coho salmon, spring chinook salmon, winter and summer steelhead, as well as populations of resident cutthroat trout, coastal rainbow trout, mountain whitefish, dace, coarse-scale sucker and sculpin. Intact watersheds like the Roaring River serve as scientific control areas for restoring abused watersheds elsewhere.

The Roaring River watershed contains several unique botanical features, including an unusual combination of plant communities in the talus habitats along the ridgeline and in the river's braided stream channels below.

The entire mainstem of the Roaring River, from its source to its confluence with the Clackamas River, is a unit of the National Wild and Scenic Rivers System. The 4.6 miles of South Fork Roaring River has been found eligible for Wild and Scenic River status — but has not yet received this official designation.

Recreation opportunities here include hiking, camping, fishing, hunting, cross-country skiing, snowshoeing, horseback riding and cross-country exploration. While one can also kayak upstream from the lower end of the river, it is impossible to do so from the upper end. While trails allow access to much of the area, there are many places the trails don't go and few people have ever seen.

PROPOSED WILDERNESS

Clackamas

LOCATION

17 miles southeast of Estacada

LEVEL IV ECOREGIONS

Western Cascades Montane Highlands (66%), Western Cascades Lowlands and Valleys (34%)

VEGETATION TYPES

Douglas-Fir/Western Hemlock (59%), Silver Fir/Western Hemlock/Noble Fir (20%) Mountain Hemlock (16%), Subalpine Lodgepole (4%)

TERRAIN

Very steep canyons.

DRAINAGE SUBBASIN

Clackamas

ELEVATION RANGE

991-5,159 feet

SIZE

35,704 acres

COUNTY

Clackamas

FEDERAL ADMINISTRATIVE UNIT

Mount Hood National Forest (Clackamas River Ranger District)

USGS 7.5' QUAD MAPS

High Rock, Three Lynx

pine, western larch and mountain hemlock. On wetter sites, western redcedar is common. Bigleaf maple, red alder and black cottonwood are found on riparian flats, while some of the drier and higher sites feature Oregon white oak and ponderosa pine. Some of the Cascades' largest Pacific yews are found in the Oak Grove Fork watershed.

Species of special concern found in the proposed Wilderness include the bald eagle, pileated woodpecker, marten, river otter, beaver, peregrine falcon, wolverine, sandhill crane, Pacific western big-eared bat, white-footed vole, harlequin duck, red-legged frog, Cope's giant salamander, painted turtle, western pond turtle, fisher, spotted frog and Cascade frog. Also found here are black-tailed deer and Roosevelt elk.

The American Fisheries Society has identified several aquatic diversity areas within the proposed Wilderness which recognize this important habitat for coho salmon (the last remaining late-run coho in the Columbia River Basin), spring chinook salmon (one of the last two remaining runs in the Willamette Basin), winter and summer steelhead, bull trout, resident cutthroat trout, sculpin, coastal rainbow trout, reddsider, mountain whitefish and coarse-scale sucker.

Recreational opportunities in the proposed Wilderness abound and include whitewater boating, hunting, camping, fishing, hiking, cross-country skiing, snowshoeing sightseeing and tree-hugging.

Approximately 78,000 acres of the proposed Wilderness are now nominally off-limits to logging. Other threats to the area include off-road vehicles, mining and road building.

Proposed Columbia River Gorge Wilderness Waterfalls and Wildflowers from Rainforest to Desert

In 1986 Congress established the Columbia River Gorge National Scenic Area (CRGNSA), in large part to protect scenic and natural resources on public and private lands, but also to provide a playground for the growing Portland-Vancouver metropolitan area. To date, environmental conservation and protection under the CRGNSA's unique land use regulations has been more effective on public lands than on private lands in the gorge. Private lands (not surprisingly) are where most management controversies have arisen. The proposed Columbia River Gorge Wilderness is intended to eliminate management controversies arising on roadless and undeveloped public forestlands in the area.

The Columbia River Gorge has the greatest concentration of waterfalls in North

SANDY LONSDALE



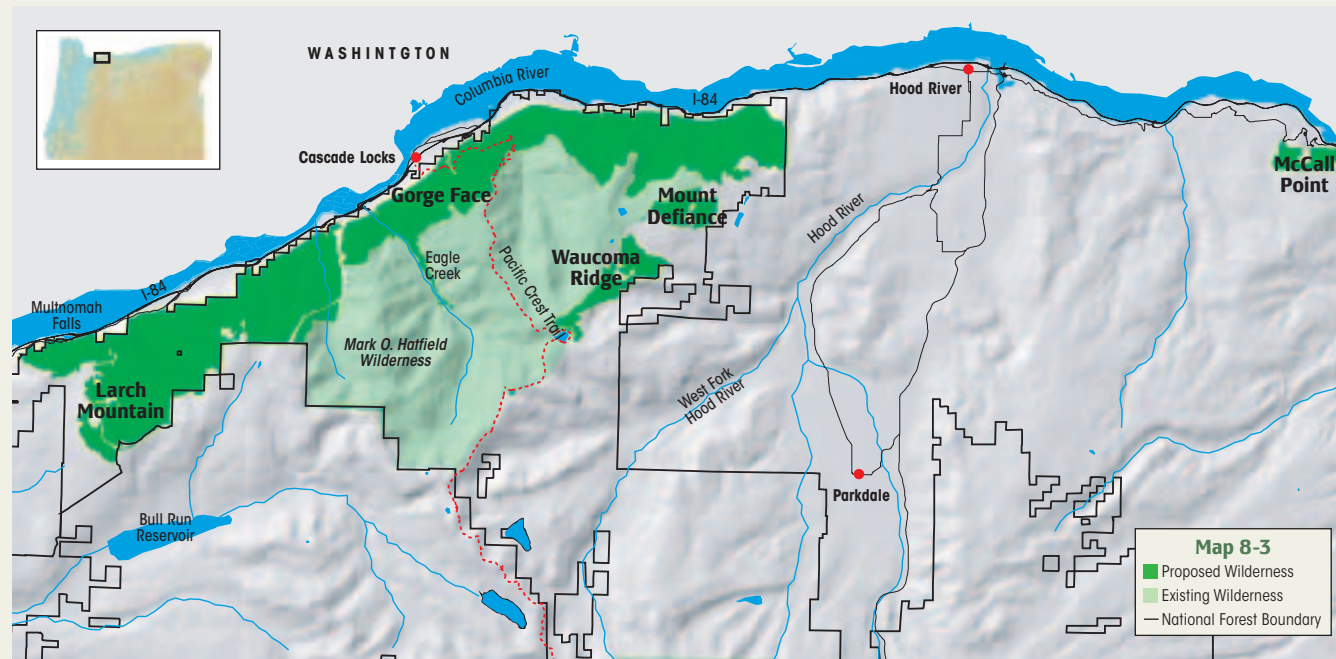
Horsetail Falls in the Gorge Face Unit of the proposed Columbia River Gorge Wilderness. Most of the gorge's waterfalls are not protected as Wilderness.

America. Most are located within the proposed Wilderness. People are drawn by the area's extraordinary scenery, where one can see cliffs, water or waterfalls and forest in almost every direction. In autumn, the fiery reds, yellows and oranges of bigleaf maple, cottonwood, Oregon ash, vine maple, red alder and the many leafy shrubs contrast with the dark green conifers.

Nearly 1,000 native species of wildflowers can be found in the Columbia River Gorge. This unparalleled assemblage of wildflowers is due to the precipitous 4,000-foot change in elevation from the river bottom to the mountain cliffs above, precipitation that diminishes from west to east along this 85-mile passage through the High Cascades and the varied soils of the area. Given the dramatic changes in terrain, it is not uncommon to find alpine flowers growing near sea level. Sixteen plant species are endemic to the Columbia River Gorge and vicinity, many of which are found within the proposed Wilderness. Forty-five of the area's plant species in the area are now listed by the state or federal government as endangered, threatened or sensitive.

While much of the proposed Wilderness burned in 1902, many pockets of residual old-growth forest exist at Tanner Creek, Multnomah Basin and Larch Mountain. If left

Proposed Columbia River Gorge Wilderness



Several of the proposed Wilderness units are highlighted below.

The **Gorge Face** is the largest unit in the proposed Wilderness. It contains the vast majority of the waterfalls on the Oregon side of the Columbia River Gorge.

Larch Mountain is featured on page 123.

McCall Point offers breathtaking views overlooking the Columbia and contains over 300 species of wildflowers, including at least four that exist only in the gorge. Adjacent holdings by Oregon State Parks and The Nature Conservancy increase the importance of this unit.

Mount Defiance contains the highest elevation lands in the gorge.

Waucoma Ridge provides a wildlands buffer for the Pacific Crest National Scenic Trail.

LEVEL IV ECOREGIONS

Western Cascade Lowlands and Valleys (60%), Western Cascade Montane Highlands (37%); Columbia Basin Level III Ecoregion: Oak/Conifer Foothills (3%)

VEGETATION TYPES

Douglas-fir/Western Hemlock (92%), Mountain Hemlock (4%), Ponderosa/White Oak (2%), Silver Fir/Western Hemlock/Noble Fir (2%)
 Cutover/Burned (<1%), Grasslands/Bunchgrass (<1%),

DRAINAGE SUBBASINS

Lower Columbia Basin, Mid Columbia Basin

ELEVATION RANGE

180-4,959 feet

UNITS

Larch Mountain, Mark O. Hatfield Additions (Gorge Face, Indian Mountain, Mount Defiance, Mount Talapus-Table Mountain, Waucoma Ridge), McCall Point

EXISTING WILDERNESS INCORPORATED

Mark O. Hatfield

SIZE

39,951 acres (62 square miles, not including 39,000 acres of currently protected Wilderness)

COUNTIES:

Hood River, Multnomah, Wasco

FEDERAL ADMINISTRATIVE UNITS

Mount Hood National Forest

CONGRESSIONAL DISTRICTS

2nd, 3rd

PROPOSED WILDERNESS

Mount Hood Additions

LOCATION

12 miles southwest of Cascade Locks

LEVEL IV ECOREGIONS

Western Cascades Lowlands and Valleys (58%), Western Cascades Montane Highlands (42%)

VEGETATION TYPE

Douglas-Fir/Western Hemlock (100%)

TERRAIN

Extremely steep and rugged.

DRAINAGE SUBBASIN

Lower Columbia Basin

ELEVATION RANGE

180–4,056 feet

SIZE

18,110 acres

COUNTY

Multnomah

FEDERAL ADMINISTRATIVE UNIT

Columbia River Gorge National Scenic Area (US Forest Service)

USGS 7.5' QUAD MAP

Multnomah Falls

DAVID J. THOMAS



The view near the summit in the Larch Mountain Unit of the proposed Columbia River Gorge Wilderness. Mount Hood is in the background. The middle ground is the Bull Run Watershed, the water supply for nearly one million Oregonians in the Portland metropolitan area.

FEATURED UNIT

Larch Mountain

There are no larch trees on Larch Mountain. The deciduous conifer is found on the other side of the Mount Hood National Forest, but not here. Larch Mountain is north of Mount Hood, just south of the Columbia River Gorge and is visible from Portland.

The forest on Larch Mountain is mostly Douglas-fir, western hemlock, Pacific silver fir and noble fir (early Oregon lumbermen marketed noble fir as “Oregon larch”). Much of it is old-growth forest, including a rare stand of old-growth western hemlock. The lower elevations contain mountain maple. A particularly rich understory of diverse shrubs and forbs (wildflowers) distinguishes this forest from those elsewhere in the area.

This unit contains the Multnomah Basin, which lies above famous Multnomah Falls and is where Multnomah Creek rises from

numerous springs on Larch Mountain. Plunging 620 feet, Multnomah Falls are the second highest in the United States and are seen by over two million people annually, making them the number one natural attraction in Oregon. Besides the extensive old-growth forest, there are significant wetlands, meadows and rock gardens here.

The Oregon side of the gorge is spectacularly steep, with sheer cliffs and rocky outcroppings that expose numerous other waterfalls. Besides Multnomah Falls, other named

waterfalls within the Larch Mountain unit include Oneonta, Horsetail, Elowah and Wake Falls. Numerous other falls remain unnamed on Tanner, Moffett, McCord, Tumalt, Horsetail, Oneonta, Wahkeena and Coopey creeks.

The topography makes for challenging hiking, but there are numerous trails in the unit for ease of access. Another high point in the unit includes Angel's Rest, an excellent example of basalt cliffs in the western end of the gorge. It is important habitat for rare plants and home to an outlier stand of quaking aspen.

Larch Mountain's old-growth forest provides habitat for the spotted owl, marten, pileated woodpecker and ruffed grouse. Bald eagles also nest in the unit. The lower elevations are critical winter range for deer and elk.

A few years ago the Forest Service proposed to log near the summit of Larch Mountain, but withdrew its plans upon hearing public outcry over the potential degradation of the drinking water supply for the town of Corbett.

SALLY PRENDER



The Larch Mountain salamander (*Plethodon larselli*) is endemic to a small portion of the Cascade Mountains in northern Oregon and southern Washington.

untouched by humans for another century, the remainder of these forests will likely become old growth again too. Major coniferous trees species in the proposed Wilderness include Douglas-fir, western hemlock, western redcedar, noble fir and Pacific silver fir. Major understory species include vine maple, huckleberry, salal, Oregon grape, oxalis, sword fern, bracken fern, trillium and vanilla leaf. In the higher elevations on Mount Defiance and Waucoma Ridge, Pacific silver fir is more common, along with mountain hemlock, noble fir and lodgepole pine. The understory contains species such as serviceberry, rhododendron and beargrass. Because the wide and deep Columbia River Gorge is such a definite break in the landscape, it serves as the southern limit of many typically northern plant and animal species, as well as the northern limit of many typically southern species.

The Columbia River Gorge is home to a concentration of rare and endemic animal species, as well as plants. The Oneonta Gorge is one of the few sites in Oregon where the Cope's giant salamander lives. The species requires very cold, very clean water. The Larch Mountain salamander (which ranges as far north as Snoqualmie Pass) favors talus habitat within these Douglas-fir forests. Other amphibian species of concern in the gorge include the western pond turtle, clouded salamander, Cascade frog, northern leopard frog, Oregon slender salamander, painted turtle, red-legged frog, spotted frog and the tailed frog.

Pacific lamprey, coho salmon and coastal cutthroat trout all spawn in the tributary

streams that emerge from the gorge face. Other fish species found here include coastal rainbow trout and winter and summer steelhead.

The bald eagle, peregrine falcon and northern spotted owl are imperiled bird species of special concern found in the area. Other sensitive forest species include the acorn woodpecker, black-backed woodpecker, flammulated owl, great gray owl, harlequin duck, Lewis' woodpecker, northern goshawk, pileated woodpecker, purple martin, pygmy nuthatch, three-toed woodpecker, white-headed woodpecker and Williamson's sapsucker. Lewis and Clark noted California condors when they traveled this stretch of the Columbia. Perhaps these birds will again be seen soaring over the gorge someday.

Mammals of special concern here include pika, marten, wolverine, fisher and fringed myotis. Other mammal species include black bear, deer, elk, cougar, bobcat, coyote, fox, weasel and beaver.

Recreational activities in the proposed Wilderness include hiking, backpacking, botanizing, birding, hunting, fishing and waterfall watching.

Approximately 37,000 acres of the proposed Wilderness is nominally off-limits to logging under the Northwest Forest Plan. Otherwise, the Columbia River Gorge National Scenic Area Act discourages, but does not expressly prohibit, the degradation of natural and wildlands values in the area.

The wildlands of the proposed Columbia River Gorge Wilderness include most of the national forest lands on the Oregon side of the gorge. While logging is not expressly prohibited in the statute that created the CRGNSA, a political firestorm erupts every time the Forest Service attempts to log in the area. And while the agency too often seeks to "salvage" timber remaining after a natural wildfire or natural insect or disease infestation has occurred, another great threat to the Columbia River Gorge wildlands is from the increasing number of people who visit the area each year. Today, these lands need to be protected as Wilderness to ensure their protection *from* an ever-increasing human population living in the ever-larger and ever-closer Portland-Vancouver metropolitan area. A Wilderness designation would be an additional, protective overlay within the CRGNSA.

Proposed McKenzie Wilderness

Waterfalls, Bull Trout, Big Trees and Clean Water

Extending from the lava strewn high mountain crests to lowland old-growth forests, the proposed McKenzie Wilderness hosts a full complement of ecosystem types

and breathless Oregon Cascades scenery. Rock outcroppings rise above forests that give way to wildflower meadows. Roadless lands and intact old-growth forests contribute unmistakably to the water quantity and quality of the McKenzie River and provide important fish and wildlife habitat along the river corridor.

The McKenzie River begins at Clear Lake. Downstream, it is joined by the South Fork McKenzie River, Blue River (which could have just as well been called the North Fork of the McKenzie River) and the Mohawk River. Eventually the McKenzie empties into the Willamette River north of Eugene. Unfortunately, the Army Corps of Engineers dammed both the South Fork McKenzie River and Blue River. However, where the mainstem flows freely from its source at Clear Lake to Scott Creek (except for the relatively small Carmen and Trail Bridge Dams and resultant reservoirs), the upper McKenzie River is designated as a National Wild and Scenic River and is part of the Oregon Scenic Waterways System. This river segment is nationally renowned for its rolling cold, clear water that lures all sorts of whitewater rafters, kayakers and drift-boaters looking for a challenge.

Wildlife abounds in the proposed Wilderness. Bird species include the spotted owl, kestrel, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, northern goshawk, osprey, golden eagle and bald eagle. Mammals of note include black-tailed deer, beaver, black bear, coyote, red tree vole, Roosevelt elk, beaver, cougar, bobcat and marten.

The river and its tributaries provide important habitat for bull trout, spring and fall chinook salmon, winter and summer steelhead, as well as coastal rainbow and cutthroat trout populations. The American Fisheries Society has identified several aquatic diversity areas that support these fisheries and coincide with several units of the proposed Wilderness.

The low elevation forests in the western part of the proposed Wilderness are predominantly Douglas-fir, along with western redcedar, western hemlock and some hardwoods such as bigleaf maple and alder. As the elevation increases, true firs such as Pacific silver fir dominate along with mountain hemlock. At the coldest and highest elevations, Engelmann spruce, subalpine fir and lodgepole pine dominate. Understory species here include beargrass, huckleberry, vine maple, ocean spray, salal, Oregon grape, rhododendron and golden chinquapin.

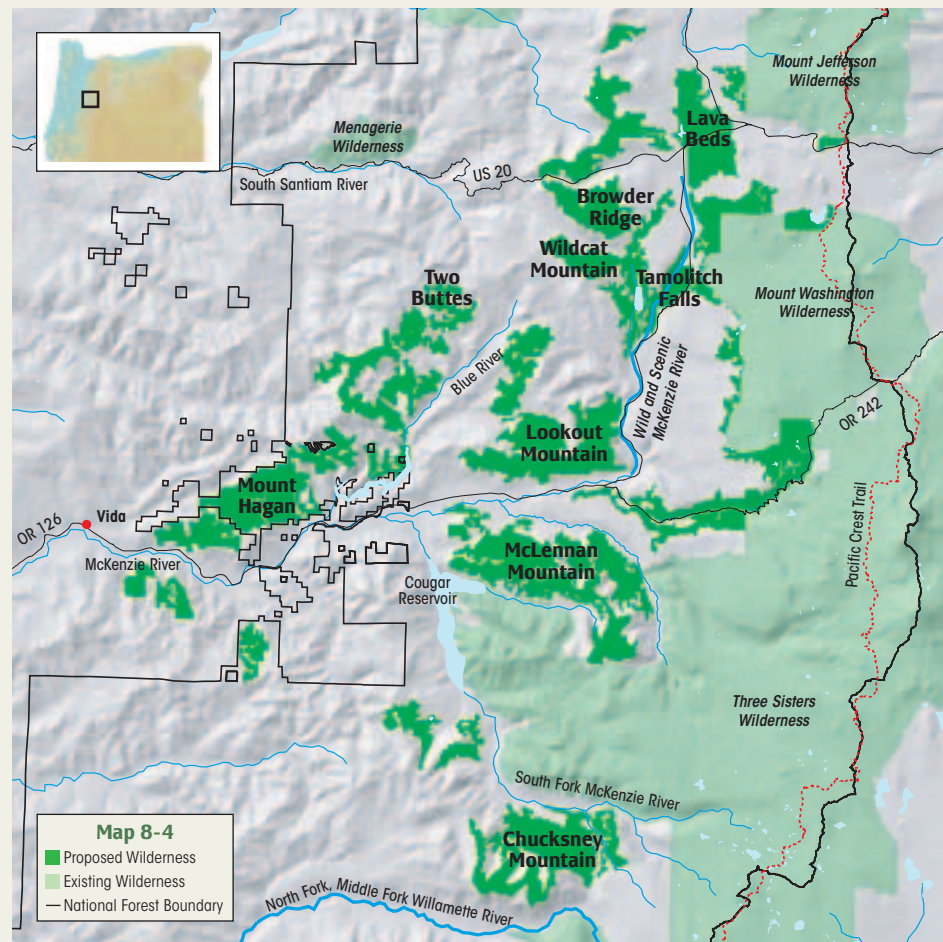
Recreational opportunities in the proposed Wilderness include hiking, backpacking, cross-country skiing, horseback riding, fishing, hunting, whitewater sports and hot springs soaking.

Approximately 34,000 acres of the proposed Wilderness are nominally off-limits to logging. Off-road vehicles and roading are the other major threats to the area.



Koosah Falls in the Tamolitch Falls Unit of the proposed McKenzie Wilderness. ►

Proposed McKenzie Wilderness



Some of the proposed Wilderness units are highlighted below.

Browder Ridge includes the secluded 12-acre Heart Lake that sits below a long high ridge that is often struck by lightning. Douglas-fir with six feet in diameter and larger are present. Of special note is an impressive stand of old-growth Alaska yellow cedar.

Chucksney Mountain is featured on page 128.

The **Lava Beds** units contain relatively recent lava beds near the Santiam Pass.

Lookout Mountain features trails through significant old-growth forest.

McLennan Mountain is heavily forested with some open grass

meadows and patches of alder trees.

Mount Hagan is a very low elevation Douglas-fir/western hemlock forest with salal and Oregon grape common in the understory.

Tamolitch Falls contains a segment of the McKenzie River that disappears and reappears as it flows through a lava labyrinth. It also includes a good portion of the 26-mile McKenzie River National Recreational Trail.

Two Buttes has numerous mountain lakes and ponds, some of which are half-in and half-out of the Mount Washington Wilderness.

Wildcat Mountain has Pacific silver fir communities of scientific interest.

LEVEL IV ECOREGIONS

Western Cascades Montane Highlands (49%), Cascade Crest Montane Forest (31%), Western Cascades Lowlands and Valleys (20%)

VEGETATION TYPES

Douglas-fir/Western Hemlock (64%), Silver Fir/Western Hemlock/Noble Fir (16%), Mountain Hemlock (10%), Cutover/Burned (3%), Douglas-fir/Broadleaf Deciduous (3%), Open Lava (2%), Subalpine Lodgepole (2%), Open Water (<1%)

DRAINAGE SUBBASIN

McKenzie

ELEVATION RANGE

997-5,760 feet

UNITS

Browder Ridge, Carpenter Mountain, Chucksney Mountain, Cook Creek, Frissell Crossing, Hardy Ridge, Indian Ridge, Iron Mountain, Jimbo Mountain, Lava Lake, Lookout Mountain, Marten Creek, McLennan Mountain, Mount Hagan, *Mount Jefferson Additions* (Upper Big Meadows), *Mount Washington Additions* (Two Buttes, Sand Mountain, West Additions, West of Big Lake), Nimrod Butte, Olallie Ridge, Ore Creek, Quentin Creek, Santiam Wagon Road, Scout Creek, Tamolitch Falls, Three Pyramids, Tidbits Mountain-Owl Ridge, Wildcat Mountain

EXISTING WILDERNESSES INCORPORATED

portions of Mount Washington and Three Sisters

SIZE

100,494 acres (157 square miles, not including 39,042 acres of currently protected Wildernesses)

COUNTIES

Jefferson, Lane, Linn

FEDERAL ADMINISTRATIVE UNITS

Willamette National Forest; BLM Eugene District

CONGRESSIONAL DISTRICT

4th

PROPOSED WILDERNESSES

McKenzie, Upper Willamette

LOCATION

19 miles south of McKenzie Bridge

LEVEL IV ECOREGIONS

Western Cascades Montane Highlands (83%), Western Cascades Lowlands and Valleys (16%), Cascade Crest Montane Forest (1%)

VEGETATION TYPES

Douglas-Fir/Western Hemlock (43%), Mountain Hemlock (35%), Silver Fir/Western Hemlock/Noble Fir (22%)

TERRAIN

Long high ridge with steep flanks.

DRAINAGE SUBBASINS

McKenzie, Middle Fork Willamette

ELEVATION RANGE

2,398-5,760 feet

SIZE

16,632 acres

COUNTY

Lane

FEDERAL ADMINISTRATIVE UNIT

Willamette National Forest (McKenzie and Middle Fork Ranger Districts)

USGS 7.5' QUAD MAPS

Chucksney Mountain, Grasshopper Mountain

DAVID STONE, WILDLAND PHOTOGRAPHY



Due to the active exclusion of fire, young trees are encroaching on Grasshopper Meadow in the Chucksney Mountain Unit of the proposed McKenzie Wilderness.

FEATURED UNIT

Chucksney Mountain

Extensive wildflower meadows, talus and large cliffs are found along Hi Yu Ridge, a long high divide between the South Fork McKenzie and North Fork of the Middle Fork Willamette River drainages. The Chucksney Mountain unit encompasses part of the ridge and is part of the proposed McKenzie and Upper Willamette Wilderness areas.

The terrain is steep with sharp spur ridges and rocky outcroppings. Chucksney Mountain (5,760') and Grasshopper Mountain (5,642') are the highest points in the area, from which there are striking views of the Three Sisters and the densely forested canopy in the pristine watershed of the North Fork of the Middle Fork Willamette River.

Black-tailed deer and Roosevelt elk are plentiful in this popular hunting area. There are also high concentrations of black bear here. Both hunters and hikers use several miles of the Hi Yu and Chucksney Mountain trails in this unit.

On the lower slopes, patches of old-growth Douglas-fir forest (with some western hemlock) are found among younger forests. Vine maple and alder are scattered in the understory along with salal, Oregon grape and rhododendron. Further up the slopes, true firs and mountain hemlocks dominate and the understory changes

to huckleberry and beargrass. On the highest slopes, Engelmann spruce, subalpine fir and lodgepole pine comprise a more open forest where dwarf huckleberry, beargrass and wildflowers form the understory.

The Chucksney Mountain unit has extensive wildflower meadows. Dry montane meadows such as those found here are in danger of disappearing from the Oregon Cascades due to fire suppression that allows conifers to gradually invade the meadows.

To restore meadows, on October 9, 1996 — just before the inevitable rain and snow season was to begin — the Forest Service set fire to 60 acres of meadows on Hi Yu Ridge. Because the ridge drops off precipitously, the risk of the fire spreading downward into the forest was minimized. The goal was to kill 50 to 100 percent of all the conifers smaller than 4 inches in diameter at the base that were invading the meadow. The fire succeeded in killing 50 to 70 percent of the lodgepole pine and 100 percent of the grand fir.

Ecological succession was successfully reset, with four new native pioneer herbaceous species replacing five other native species that were present before the fire.

The cost of setting the fire was \$400 (\$6.67/acre) plus an additional \$1,200 to establish and maintain a 20-acre unburned control area (\$60/acre). The control was necessary for this particular scientific study, but wouldn't be necessary as an ongoing management activity. It was estimated that using mechanical treatment (chainsaws) to achieve the same result would have cost \$1,500 (\$25/acre). Fire was the most natural and inexpensive way to retain healthy meadows and surrounding forestlands. Yet that didn't stop the Forest Service from spending \$1,300/acre in 2001 attempting to put out naturally caused wild fires that would have provided the same ecological benefits to dry montane meadows and other habitats as the prescribed burn.

Besides the aesthetic benefits (no stumps), fire is ecologically preferable to mechanical treatment for several reasons. The large standing dead trees left by fire provide important snag habitat; the palatability of forage increases under the newly opened canopy for deer, elk and other species; fire kills forest insect pests; and soils remain stable (much more so than when mechanical treatments are employed) and their productivity is maintained or enhanced. Between lightning strikes and Native American burning, these high mountain meadows once had a typical fire interval of five to 20 years.

Proposed Mount Hood Wilderness Additions

Portland's Backyard Play Land with Pacific Salmon, Mountain Meadows and Big Trees

The Mount Hood Wilderness Additions include all the remaining unprotected wildlands in the watersheds of the rivers that descend from Mount Hood: the Sandy, Salmon (a tributary of the Sandy), Hood and White Rivers. Another major tributary watershed of the Sandy is the Bull Run River. Being further west, the Bull Run does not originate on Mount Hood, but is still known throughout northwest Oregon as the primary water supply for the Portland metropolitan area. The Sandy and Hood Rivers flow directly into the Columbia River, while the White River flows into the Deschutes, which then joins the Columbia about a hundred miles east of Portland. Segments of the White, Sandy and Salmon Rivers are designated units of the National Wild and Scenic Rivers System.

The proposed Mount Hood Wilderness Additions include the entire spectrum of ecosystem types found in the northern Oregon Cascades. There are very low elevation lush old-growth forests, shrubby riparian areas, high elevation cold forests, alpine meadows, exposed rock, drier open forests and the edge of the Sagebrush Sea.

The rivers here generally have excellent water quality, though those fed from Mount Hood glaciers are naturally silt-laden during times of maximum glacial melt. In its upper reaches, the aptly named White River is laden with milky colored silt from the White River Glacier. The Sandy River flows either pale green or milky gray from the glacial flour of the Sandy and Reid Glaciers. The Salmon River, which rises below the Palmer Glacier, has the least amount of sediments, but probably the most salt because of artificial efforts to make the highest snowfields persist longer for summer downhill skiing. The Hood River rises from the Coe, Langille, Ladd, Eliot, Newton and Clark Glaciers. The generally steep mountain gradients create numerous waterfalls.

In the western lowlands, hardwoods such as bigleaf maple and red alder are most common. Rising in elevation, conifer species begin to dominate and include Douglas-fir, western hemlock and western redcedar. At the highest elevations that support trees, Pacific silver fir, noble fir, grand fir, subalpine fir, western larch, mountain hemlock, lodgepole pine and western white pine are prevalent. Understory species at middle to low elevations include vine maple, rhododendron, huckleberry, ocean spray, salal, golden chinquapin, beargrass and Oregon grape. Salmonberry and devil's club are found in very wet areas. As elevations decrease and the climate gets drier in the east, there are increasing numbers of ponderosa pine and Oregon white oak.



Oregon white oak (*Quercus garryana*) and ponderosa pine (*Pinus ponderosa*) in the Lower White River Unit of the proposed Mount Hood Wilderness Additions.

Recognizing the area's importance to bull trout, coastal rainbow trout, redband trout, cutthroat trout, coho salmon, spring and fall chinook salmon, as well as winter and summer steelhead, the American Fisheries Society has identified several aquatic diversity areas within the proposed Wilderness additions.

Bird species found here are as diverse as the ecosystem types. In alpine areas, gray jay, mountain chickadee and gray-crowned rosy finch, Mountain bluebird, rufous hummingbird, Stellar's jay and band-tailed pigeon are found. Ruffed grouse occur in the small meadows, abundant springs and dense conifers of the subalpine zone. In the large meadow complexes, one finds wading birds such as the sandhill crane and great blue heron, as well as flycatchers, warblers and swallows. In the mature and old-growth forest, common species include flicker, hairy and pileated woodpeckers, red-breasted sapsucker, along with kingfisher, water ouzel, nuthatch and kinglet. Lower, wider river areas provide habitat for a variety of herons and waterfowl, including wood duck, merganser and mallard. Of special note are the imperiled bald eagle, peregrine falcon, northern goshawk and northern spotted owl that each specialize in their own niche habitats found in the area.

Mammal species here include bobcat, cougar, coyote, black bear, beaver, marten, wolverine, as well as ubiquitous deer and elk. The white-footed vole, the rarest vole in North America, lives only in Oregon's riparian forests west of the Cascade Crest where

LEVEL IV ECOREGIONS

Cascade Crest Montane Forest (37%), Western Cascades Montane Highlands (31%), Western Cascades Lowlands and Valleys (17%), Cascade Subalpine/Alpine (<2%); East Cascades Slopes and Foothills Level III Ecoregion: Grand Fir Mixed Forest (7%), Oak/Conifer Foothills (6%), Ponderosa Pine/Bitterbrush Woodland (1%); Columbia Basin Level III Ecoregion: Umatilla Plateau (<1%)

VEGETATION TYPES

Douglas-fir/Western Hemlock (46%), Mountain Hemlock (17%), Silver Fir/Western Hemlock/Noble Fir (10%), Ponderosa (7%), Ponderosa/Douglas-fir/True Fir (4%), Douglas-fir/Broadleaf Deciduous (4%), Douglas-fir/Ponderosa/True Fir (3%), Cutover/Burned (3%), True Fir/Lodgepole (2%), True Fir/Lodgepole/Western Larch/Douglas-fir (1%), Alpine Barren Fell Field (1%), Big Sagebrush (<1%), Mountain Hemlock/Parklands (<1%), Juniper/Bitterbrush (<1%), Open Lava (<1%)

DRAINAGE SUBBASINS

Hood, Lower Deschutes, Sandy

ELEVATION RANGE

801-9,412 feet

UNITS

Abbot Burn, *Badger Creek Additions* (East Additions, Eightmile Meadow, West Additions), Barlow Butte, Basin Point, Big Bend Mountain, Bonney Butte, Boulder Lake, Cedar Creek, Clear Fork Butte, Cougar Creek, Crow Creek, Fifteenmile Creek, Hellroaring Creek, Joes Point, Jones Creek, Jordan Creek, Little Clear Creek, Little Sandy River, Lost Lake Butte, Lower Badger Creek, Lower White River, Marco Creek, Mill Creek Buttes, *Mount Hood Additions* (Coe Branch, East Bunchgrass Ridge, Red Hill-Middle Fork Hood River Lava Beds, Sandy River, Tilly Jane Creek-Pollalie Creek, Upper White River, Zigzag and Little Zigzag Rivers), North Boulder Creek, North Mountain, Roaring River, *Salmon-Huckleberry Additions* (Abbott Burn, Alder Creek, Linney Butte, Salmon River Meadows, West Hunchback Mountain), Salmon River Meadows, Shellrock Mountain, South Fork Bull Run River, Tom Dick and Harry Mountain, Township Meadow, Twin Lakes, Upper Salmon River.

EXISTING WILDERNESSES INCORPORATED

Badger Creek, Mount Hood and portion of Salmon-Huckleberry

SIZE

172,107 acres (269 square miles, not including 106,908 acres of currently protected Wildernesses)

COUNTIES

Clackamas, Hood River, Multnomah, Wasco

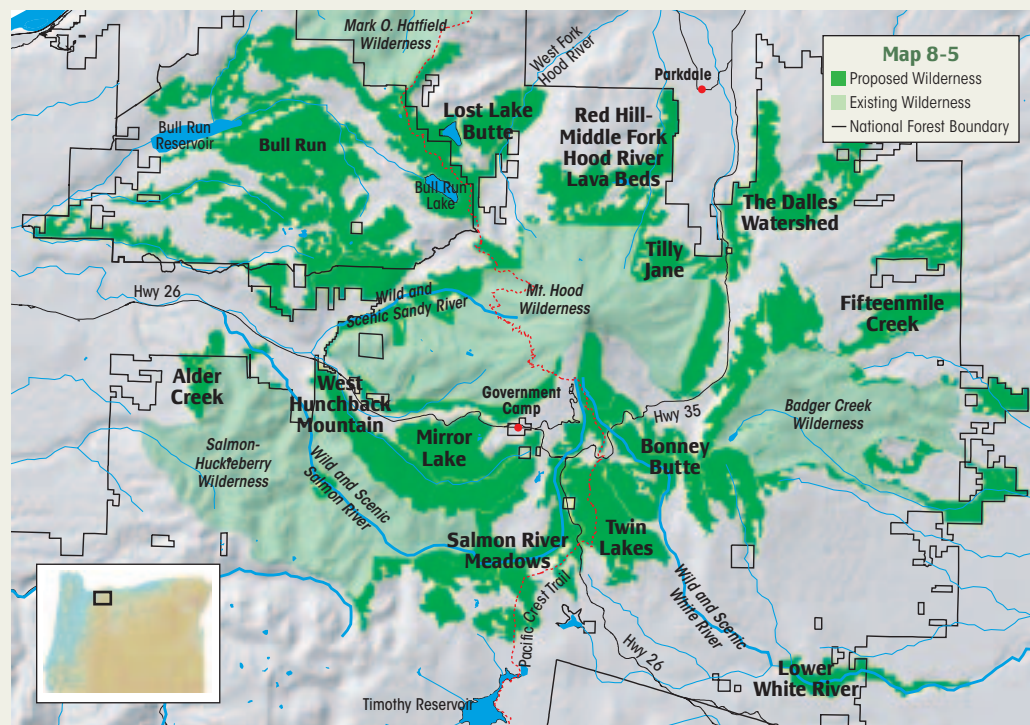
FEDERAL ADMINISTRATIVE UNITS

Mount Hood National Forest; BLM Prineville and Salem Districts

CONGRESSIONAL DISTRICTS

2nd, 3rd, 5th

Proposed Mount Hood Wilderness Additions



Some of the proposed Wilderness units are highlighted below.

Alder Creek provides pristine water to the town of Sandy.

Roadless units within the **Bull Run** Management Unit are closed to public access (save the Pacific Crest National Scenic Trail) to protect near-pristine drinking water supplies.

Every September and October, Hawkwatch International counts 2,500 to 4,000 migrant raptors, representing 18 species (including the relatively rare merlin) atop **Bonney Butte**. Landforms on the unit naturally constrict winged passage, creating a funnel for migratory birds on the Pacific Flyway.

Fifteenmile Creek is within the Oregon Diversity Project's North Wasco Conservation Opportunity Area, an area singled out for its two dozen at-risk plant and animal species. Most steelhead east of the Cascades are summer-run, but those in Fifteenmile Creek are winter-run.

There are many "Lost Lakes" in Oregon, but the picture postcard view of Mount Hood from Lost Lake is the familiar one. The old-growth forests that surround the lake (the **Lost Lake Butte** unit) are magnificent.

their range. Of particular note is American scheuchzeria (*Scheuchzeria palustris* var. *americana*), a plant species very rarely found in Oregon, but more common in wetlands elsewhere.

Like the Bull Run Watershed, roadless units of The Dalles Watershed (**Mill Creek Buttes** and **Crow Creek**) are closed to public access to protect drinking water supplies.

A popular gateway to the Mount Hood Wilderness, **Tilly Jane** contains old-growth forest of mountain hemlock, subalpine fir and whitebark pine. Home to the historic Tilly Jane Trail, a popular cross country ski route, the area also cleans and recharges the ground water for Crystal Springs, from which a quarter of Hood River County residents receive their drinking water.

Twin Lakes is featured on page 131.

Hunchback Mountain is not in the Salmon-Huckleberry Wilderness, but the east half of the mountain is. From its summit, one can see from Mount Rainier to Three Fingered Jack. The unprotected half is a prominent landmark along US 26.

The **Lower White River** includes the White Wild and Scenic River and Oregon white oak and ponderosa pine forests that provide habitat for the bald eagle and peregrine falcon.

The **Red Mountain-Middle Fork Hood River Lava Beds** contains a low-elevation lava flow of unusual geological interest.

Both the Salmon River and the Pacific Crest National Scenic Trail cross the **Salmon River Meadows**. The diversity of riverine and forested habitats supports over 228 native fish and wildlife species in this unit — including 31 that are threatened, endangered or sensitive. Sandhill cranes nest here at the northern edge of



One of the Twin Lakes in the Twin Lakes Unit of the proposed Mount Hood Wilderness Additions.

FEATURED UNIT

Twin Lakes

South of Barlow Pass and north of Wapinitia Pass between the upper reaches of the Salmon and White Rivers lies a gem. Bordered by US 26 on the west, the historic Barlow Road (built in 1846 as an alternative to floating one's wagon through the Columbia River Gorge) on the east and a logging road on the south, the Twin Lakes unit is little known and even less protected.

The Twin Lakes were formed in glacial cirques. Other small lakes here include Green and Catalpa Lakes. There are also a number of wet meadows. The lakes empty easterly into Barlow Creek, which flows into the White River. The ephemeral streams in

the western part of the unit flow toward the Salmon River Meadows. Sandy and silt loam soils predominate here and the steeply glaciated side-slopes exhibit potential for soil erosion. The terrain is quite steep if one tries to travel east to west, but rather gentle along the north-south divide.

The majority of the area is densely forested with Douglas-fir, noble fir, Pacific silver fir, mountain hemlock, Engelmann spruce, western white pine and lodgepole pine. The understory is quite diverse,

with huckleberry, rhododendron, beargrass and a variety of other shrubs and wildflowers. Scattered throughout and associated with the higher points are barren or sparsely vegetated talus openings.

Wildlife species of special note here include the imperiled northern spotted owl and marten. Ruffed grouse are common, as are deer and elk. There are three miles of fish-bearing streams and a great blue heron rookery in the unit.

The Confederated Tribes of the Warm Springs Indian Reservation conducts an annual first huckleberry ceremony in the unit. However, forest encroachment onto the huckleberry patches caused by the lack of fire is resulting in a decline in huckleberry production.

Five miles of the Pacific Crest National Scenic Trail traverse the area and other trails connect the unit's major lakes.

PROPOSED WILDERNESS

Mount Hood Additions

LOCATION

6 miles south-southeast of Government Camp

LEVEL IV ECOREGION

Cascade Crest Montane Forest

VEGETATION TYPES

Mountain Hemlock (79%), True Fir/Lodgepole/Western Larch/Douglas-Fir (18%), Douglas-Fir/Western Hemlock (2%), Silver Fir/Western Hemlock/Noble Fir (1%)

TERRAIN

Generally steep with some plateaus.

DRAINAGE SUBBASINS

Lower Deschutes, Sandy

ELEVATION RANGE

3,199-5,200 feet

SIZE

7,301 acres

COUNTIES

Clackamas, Hood River, Wasco

FEDERAL

ADMINISTRATIVE UNIT

Mount National Forest (Hood River Ranger District)

USGS 7.5' QUAD MAPS

Mount Hood South, Wapinitia Pass

its preferred food is red alder leaves.

The area's amphibian species of special concern include the Cope's giant salamander, red-legged frog, western pond turtle and painted turtle.

Recreational activities here include hiking, whitewater rafting, canoeing, cross-country skiing, snowshoeing, hunting, fishing, camping or just taking in the endless variety of views of Mount Hood.

Approximately 98,000 acres in the proposed Wilderness are presently nominally off-limits to logging. Other threats to the area including mining, off-road vehicles, roading, livestock grazing and downhill ski area expansion.

Proposed North Umpqua Wilderness Parklands, River Canyons, Salmon, Old Trees and Wildflowers

The relatively free-flowing North Umpqua River and large amount of old-growth forest and roadless areas in the river's basin make it one of the best remaining salmon and steelhead streams on the West Coast. While lower sections of the North Umpqua Watershed have been heavily logged and the upper stretch of the river is dammed in several places, the remaining wildlands in between have managed to maintain the incredible biodiversity that characterizes the North Umpqua River Basin. These wildlands provide the high quality clean, cold water that sustains the North Umpqua River's world famous fish runs.

The North Umpqua River begins at Maidu Lake, less than a mile from the Cascade Crest, and flows freely until it reaches the first of several indignities at Lemolo Reservoir. Three dams divert much of the river into canals and pipes so it can produce power at a series of eight hydroelectric generators including facilities at Toketee and Soda Springs Reservoirs. After that point, the river again flows freely (save for the small and obsolete Winchester Dam near Interstate 5) and unimpeded to its confluence with the South Umpqua downstream of Roseburg. The Umpqua River then flows through the Coast Range to the Pacific Ocean. The 33.8-mile segment of the North Umpqua from Soda Springs Powerhouse to its confluence with Rock Creek (about 12 miles below the Umpqua National Forest boundary) is part of the National Wild and Scenic Rivers System.

The distinctive canyon country of the lower North Umpqua basin includes vast low elevation Douglas-fir forests with a mosaic of meadows, balds, cliffs, boulders, spires and other rock outcroppings. Higher up in the watershed, the forests are

UMPQUA WATERSHEDS



This Douglas-fir (*Pseudotsuga menziesii*) in the Bunker Hill Unit of the proposed North Umpqua Wilderness is perhaps 1,000 years old. The only way to know for sure is to cut it down and count the rings. Counts on nearby stumps showed over 600 rings on trees that were three feet in diameter at their base. In the name of forest "health," the Forest Service is contemplating cutting down this tree to make more room for a younger (but still rather old) ponderosa pine (*Pinus ponderosa*) nearby.

predominantly mountain hemlock with more and larger open areas. Although it has been heavily logged, the North Umpqua Basin still has some of the largest concentrations of old-growth forest left in Oregon.

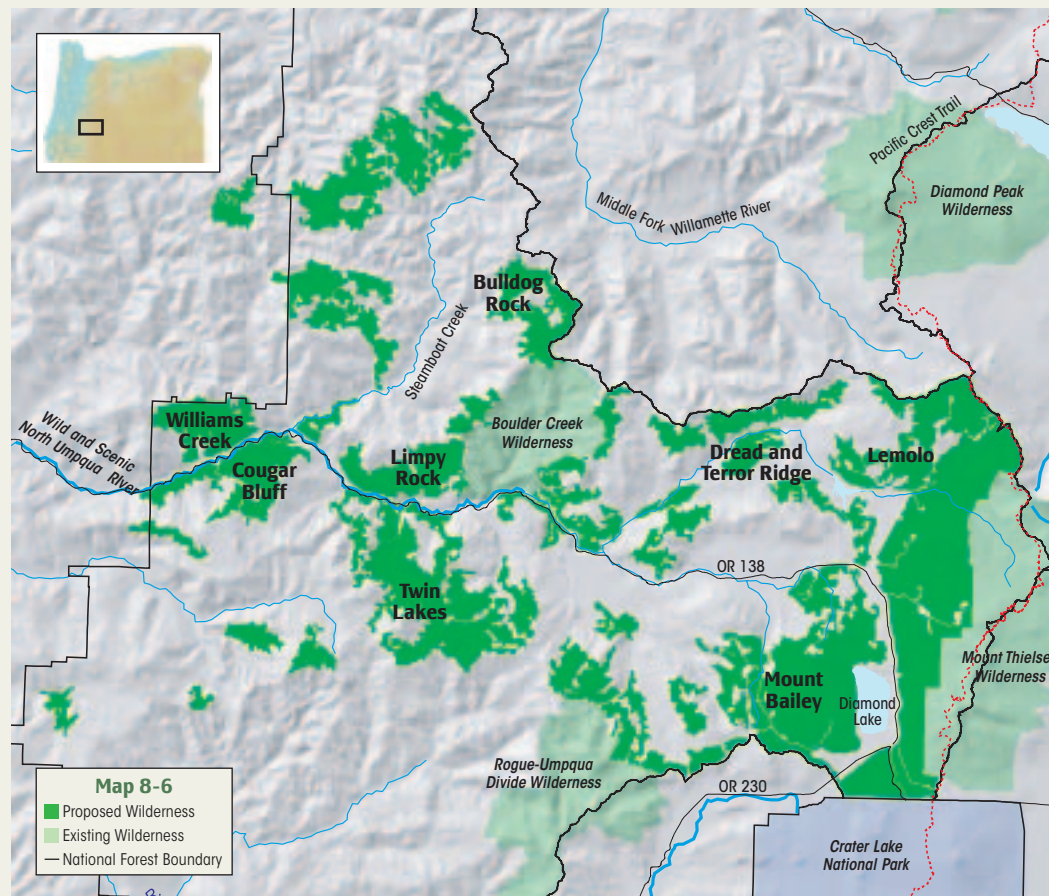
The river's deep and relatively straight east-west canyon exposes a cross-section of the region's geological history, including elements of both the more recent Mount Mazama-dominated High Cascades geology to the east and much older geology of the Western Cascades.

Prehistoric peoples used this area continuously since before the eruption of Mount Mazama about 7,700 years ago. Consequently, the area has some of the most abundant and rich archeological sites in the region.

Major wildlife species here include peregrine falcon, deer (white-tailed, black-tailed and mule), Roosevelt elk, black bear, cougar, bobcat, coyote, bald eagle, northern spotted owl, marten, fisher and wolverine.

The American Fisheries Society has recognized the important wild coho salmon,

Proposed North Umpqua Wilderness



Some of the proposed Wilderness units are highlighted below.

Bulldog Rock is very scenic, with forests, meadows, wetlands and rock outcroppings. It also provides exceptionally cold, clean water to the world famous steelhead run in Steamboat Creek. The cold north-facing slopes harbor Pacific silver fir and Alaska yellow cedar, both uncommon in the southern Cascades.

Little is known about **Dread and Terror Ridge** unit, but the name does make one want to hike the trail along the ridge, one of the longer stretches of the North Umpqua Trail. The spectacular Lemolo Falls (169') are located at the eastern end of this ribbon-like roadless area.

The **Lemolo** unit contains some of Oregon's last, best wolverine

habitat and is potential lynx habitat. It also happens to offer some of the most striking scenery along the North Umpqua River.

Geologically, **Limpy Rock** is an outlier of the Klamath Mountains Ecoregion. It has soils that support plants usually found in that ecoregion, the most well known of these being the Kalmiopsis (*Kalmiopsis leachiana*). Also worth noting are spring phacelia (*Phacelia verna*), grass fern (*Asplenium septentrionale*), branching montia (*Montia diffusa*) and woodland milk vetch (*Astragalus umbraticus*). Despite the steep and rugged terrain, botanists travel from afar to visit this unit.

Mount Bailey is featured on page 134.

The **Mount Thielsen Additions** unit contains

some of the upper reaches of the North Umpqua River and lower stretches of Thielsen Creek. The current Oregon Cascades Recreation Area designation provides inadequate protection for these roadless forests (see the proposed Upper Deschutes Wilderness, pages 147-150.)

Twin Lakes unit on the North Umpqua-South Umpqua Divide not only contains these beautiful lakes and associated wet meadows, but also the headwaters of Calf Creek and Copeland Creek. The unit contains much old-growth Douglas-fir with an understory of rhododendron and vine maple and a few Alaska yellow cedar. The unit also has a number of important archaeological sites.

Williams Creek and **Cougar Bluff** are important for low-elevation big game winter range.

LEVEL IV ECOREGIONS

Western Cascade Montane Highlands (38%), High Southern Cascades Montane Forest (35%), Western Cascades Lowlands and Valleys (24%), Cascade Subalpine/Alpine (2%), Southern Cascades (<1%), Cascade Crest Montane Forest (<1%)

VEGETATION TYPES

Douglas-fir/Western Hemlock (54%), Mountain Hemlock/Red Fir (25%), Subalpine Lodgepole (5%), Oregon White Oak/Ponderosa (4%), Silver Fir/Western Hemlock/Noble Fir (3%), Siskiyou Mixed Conifer (3%), Cutover/Burned (2%), Mountain Hemlock (2%), Mountain Hemlock/Parklands (1%), Open Water (<1%), Ponderosa/Douglas-fir/True Fir (<1%), Siskiyou Mixed Conifer-High Elevation (<1%), Mountain Hemlock/Red Fir/Lodgepole (<1%), Douglas-fir/Broadleaf Deciduous (<1%)

DRAINAGE SUBBASIN

North Umpqua

ELEVATION RANGE

912-8,368 feet

UNITS

Bear Creek, *Boulder Creek Additions* (Balm Mountain, Illahee Rock, Medicine Creek), Bulldog Rock, Bunker Hill, Canton Creek, Cedar Creek, Chilcoat Mountain, City Creek, Clearwater Falls, Cougar Bluff, Cowhorn Mountain, Dread and Terror Ridge, Dumont Creek, Elbow Butte, Elephant Mountain, Fish Creek, Flat Rock, Garwood Butte, Grotto Falls, Horn Prairie, Horseshoe Bend, Kelsay Valley, Lake West, Lemolo, Lemon Butte, Limpy Creek, Limpy Rock, Mount Bailey, *Mount Thielsen Additions* (North Umpqua Headwaters, Thielsen Creek), North Crater, Oak Flats, Pass Creek, Calapooya Mountains, Pig Iron, Red Cone, Rhododendron Ridge, *Rogue-Umpqua Divide Additions* (Rolling Grounds), Shadow Falls, Sherwood Butte, Skookum Lake, Spotted Owl Creek, Steamboat Creek, Steelhead Creek, Thorn Prairie, Thunder Creek, Twin Lakes, Warm Springs Creek, Williams Creek, Windy Creek

EXISTING WILDERNESSES INCORPORATED

Boulder Creek, portion of Rogue-Umpqua divide and portion of Mount Thielsen

SIZE

200,691 acres (314 square miles, not including 40,400 acres of currently protected Wildernesses)

COUNTIES

Douglas, Lane

FEDERAL ADMINISTRATIVE UNITS

Umpqua National Forest; BLM Eugene and Roseburg Districts

CONGRESSIONAL DISTRICT

4th

PROPOSED WILDERNESS

North Umpqua

LOCATION

5 miles West of Diamond Lake

LEVEL IV ECOREGIONS

High Southern Cascades Montane Forest (89%), Cascade Crest Subalpine/Alpine (11%)

VEGETATION TYPES

Mountain Hemlock/Red Fir (69%), Oak/Ponderosa (18%), Mountain Hemlock/Parklands (9%), Douglas-Fir/Western Hemlock (2%), Siskiyou Mixed Conifer (2%), Open Water (<1%)

TERRAIN

Volcanic peak.

DRAINAGE SUBBASINS

North Umpqua

ELEVATION RANGE

4,554-8,368 feet

SIZE

18,863 acres

COUNTY

Douglas

FEDERAL ADMINISTRATIVE UNIT

Umpqua National Forest (Diamond Lake Ranger District)

USGS 7.5' QUAD MAPS

Diamond Lake, Garwood Butte, Lemolo Lake

MIKE PIEHL



Mount Bailey in the proposed North Umpqua Wilderness.

FEATURED UNIT

Mount Bailey

If forlorn Mount Bailey was aligned with other well-known peaks of the Cascade Crest, it would already be protected as Wilderness. However, it has the geographic misfortune to be located about ten miles to the west of the crest. It is the largest roadless and unprotected wilderness tract in the Umpqua National Forest. From the summit, one can see from Mount Hood to Mount Shasta. It is also the highest point in Oregon's forested ranges that is accessible (for now) by snowmobile.

Mount Bailey is a classic High Cascades volcano, with steep slopes, cinder fields, lava flows and glacial washes. The highly porous soils — created by 35-foot deep ash deposits from ancient Mount Mazama — limit surface water (lakes and streams) in the area as precipitation and snowmelt immediately percolate deep underground. Those streams that do exist tend to appear fully formed from springs fed by the percolated ground water.

The trail to the summit begins in a relatively high-elevation Douglas-fir/western hemlock forest with some white fir. One then

walks through a band of lodgepole pine, then through mountain hemlock and Shasta red fir (with a few Pacific silver fir and western white pine as well) and finally into a mix of mountain hemlock, subalpine fir and whitebark pine. The at-risk Whitney's Haplopappus (*Hazardia* [Haplopappus] *whitneyi* ssp. *discoideus*) grows on the rocky slopes above timberline.

Bald eagles nest on Mount Bailey above Diamond Lake. The mountain is summer range for deer and elk, and wolverine tracks have been sighted in the area.

Mount Bailey was (and is) a vision quest site for Native Americans who recognize the mountain as a source of spiritual power, calling it Medicine Mountain.

In 1886, President Grover Cleveland issued an executive order temporarily setting aside ten townships (each 36 square miles), including Mount Bailey, from sale, mining and logging, "pending legislation looking to the creation of a public park." The park that became Crater Lake National Park in 1902 was little more than seven townships and did not include Mount Bailey. Over the decades, the National Park Service has tried without success to gain control of nearby Mount Bailey, Diamond Lake and Mount Thielsen.

spring and fall chinook salmon and winter and summer steelhead runs associated with the North Umpqua — among the most productive in Oregon — by designating multiple aquatic diversity areas within the proposed Wilderness. The North Umpqua also has unique runs of sea-run cutthroat and rainbow trout and numerous tributary streams of the North Umpqua River below Toketee Falls are included in the Oregon Biodiversity Project's Umpqua Headwaters Conservation Opportunity Area.

Best known for its fly-fishing, and increasingly known for its whitewater rafting, the proposed North Umpqua Wilderness also provides excellent hiking, hunting, picnicking, horseback riding, swimming, sightseeing, photography, camping and botanizing.

Approximately 130,000 acres of the proposed Wilderness are somewhat off-limits to logging. However, current land use allocations have loopholes large enough to allow a convoy of log trucks to pass through. Off-road vehicles, roading and mining are other major threats to the area.

Proposed Rogue-Umpqua Wilderness Old-Growth Forests, Salmon Streams, Mountain Meadows and Wonderful Rock Formations

The proposed Rogue-Umpqua Wilderness includes all federal roadless lands in the South Umpqua River drainage and in the upper Rogue River Basin west and north of the Rogue River, which is a federally protected Wild and Scenic River. The entire area is incredibly scenic. Its diverse terrain includes magnificent low-elevation dark forested valleys, high alpine meadows and lakes, as well as fascinating basalt outcroppings.

Much of the area has been designated as late successional reserve under the Northwest Forest Plan in recognition of its significant value as wildlife habitat. The varied landscape makes for diverse wildlife populations. Notable species include black-tailed deer, Roosevelt elk, black bear, blue grouse, mountain beaver, coyote, cougar, snowshoe hare, otter, mink, gray squirrel, ruffed grouse, spotted owl, marten, fisher, western pond turtle, yellow-legged frog and red-legged frog.

The American Fisheries Society has identified several aquatic diversity areas within the proposed Wilderness, recognizing the important runs of coho, spring Chinook salmon, as well as summer and winter runs of steelhead. The Oregon Biodiversity Project's Umpqua Headwaters Conservation Opportunity Area, which

A snag in the Donegan Prairie Unit of the proposed Rogue-Umpqua Wilderness. ►



LEVEL IV ECOREGIONS

Southern Cascades (49%), Western Cascades Montane Highlands (29%), High Southern Cascades Montane Forest (4%); Klamath Mountains Level III Ecoregion: Oak Savanna Foothills (10%), Inland Siskiyou (8%), Umpqua Interior Foothills (<1%)

VEGETATION TYPE

Douglas-fir/Western Hemlock (45%), Siskiyou Mixed Conifer (30%), Mountain Hemlock/Red Fir (11%), Siskiyou Mixed Evergreen (5%), Silver Fir/Western Hemlock/Noble Fir (3%), Oregon White Oak/Ponderosa (2%), Siskiyou Mixed Conifer-High Elevation (2%), Cutover/Burned (1%), Douglas-fir/Broadleaf Deciduous (<1%), Oregon White Oak/Douglas-fir (<1%), Subalpine Lodgepole (<1%)

DRAINAGE SUBBASINS

Middle Rogue, Upper Rogue, South Umpqua

ELEVATION RANGE

997-6,930 feet

UNITS

Acker Rock, Bailey Ridge, Beaver Creek, Berry Creek, Bitter Lick Creek, Blue Gulch, Board Mountain, Buckhorn Mountain, Cedar Springs Mountain, Coffee Creek, Collins Ridge, Donegan Prairie, Drew Creek, Dumont Creek, Elkhorn Creek, Flood Rock, Hatchet Creek, Hawk Mountain, Horn Prairie, Last Creek, Morine Creek, Mount Stella, Pipestone Creek - Beaver Creek, Pass Creek-Calapooya Mountains, Point Nance, Poole Creek, Quartz Creek, *Rogue-Umpqua Divide Additions* (Abbott Creek, Castle Rock Fork, Fish Lake Creek, Jackson Creek Headwaters, Log Creek, Mosquito Camp, Paul Pearson I, Paul Pearson II, Muir Creek, Rabbit Ears, Travail Creek), Sherwood Butte, Snowshoe Springs, South Fork Cow Creek, Straight Creek, Surveyor Creek, Tatouche Peak, Yellow Jacket, Yellow Jacket Spring, Yellow Rock

EXISTING WILDERNESS INCORPORATED

portion of Rogue-Umpqua Divide

SIZE

121,972 acres (191 square miles, not including 33,200 acres of currently protected Wilderness)

COUNTIES

Douglas, Jackson

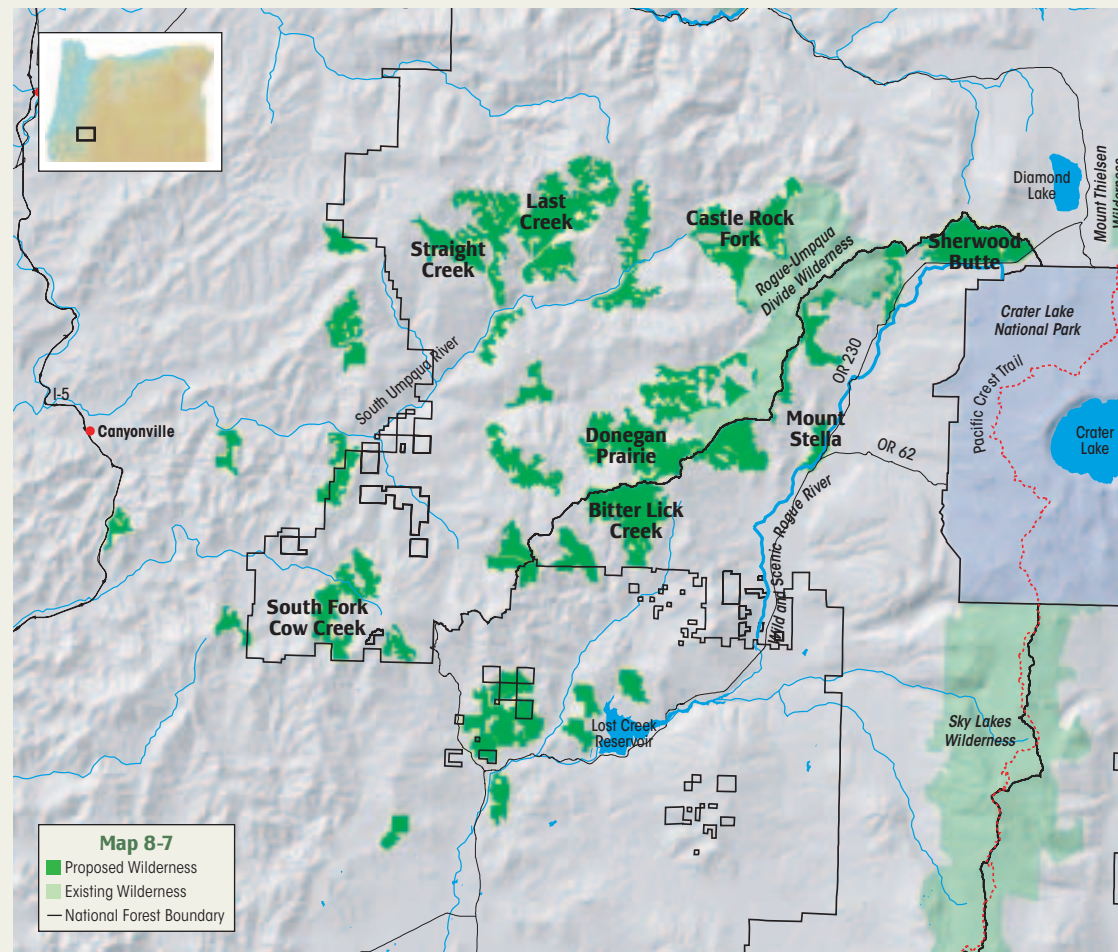
FEDERAL ADMINISTRATIVE UNITS

Rogue River and Umpqua National Forests; BLM Medford and Roseburg Districts

CONGRESSIONAL DISTRICTS

2nd, 4th

Proposed Rogue-Umpqua Wilderness



Some of the units in the proposed Wilderness are highlighted below.

Bitter Lick Creek is featured on page 137.

Castle Rock Fork includes habitat for the endangered peregrine falcon. The Castle Rock Fork provides one quarter of the late summer flows to the upper South Umpqua River and has unusually cold water.

Donegan Prairie hosts a variety of habitats from wet meadows and dry prairies to old-growth sugar pine and incense cedar forest. For many species, including northern spotted owls, the unit is a link in a crucial low-elevation wildlife corridor along the Rogue-Umpqua Divide.

Last Creek includes trees over 800 years old and great views from atop Big Squaw Mountain.

Mount Stella hosts segments of the Rogue River and the Upper Rogue River Trails.

The **Rogue-Umpqua Divide Additions** include numerous wildlands "appendages" that should have been included in the original Rogue-Umpqua Divide Wilderness designated by Congress in 1984. The proposed additions contain significant low elevation old-growth forest and numerous interesting rock formations, including Rabbit Ears, two spires that can be

seen from many vantage points in the Upper Rogue River Basin.

Sherwood Butte has pumice soils and steep ridges covered with mountain hemlock and Shasta red fir. Sitting atop the Rogue-Umpqua Divide, this unit also has some relatively flat moist meadows. There is good habitat for the rare marten here.

South Fork Cow Creek contains some mature, picture-perfect old-growth forest and an easy trail by which to see it.

From the vantage point of Smith Ridge, one can look into **Straight Creek** where big old pines are scattered amongst giant old firs that support the endangered northern spotted owl.

KEN CROCKER



Old-growth forest along Bitter Lick Creek in the unit of the same name in the proposed Rogue-Umpqua Wilderness.

FEATURED UNIT

Bitter Lick Creek

Bitter Lick Creek is named for a couple of “salt” licks in the heart of the unit. (They are quite bitter, with a strong hint of sulfur.) The watershed is generally intact and contains a vast low-elevation old-growth forest. The uppermost portions include talus, cliffs, outcroppings, dry open meadows and brush. The highest point in the unit is Butler Butte along the Rogue-Umpqua Divide.

The area's old growth is not particularly large in diameter (most of these trees are four- to five-feet in diameter, but one seven-foot specimen has been seen), but there is an unusually high number of large trees per acre. Species include Douglas-fir, sugar pine, grand fir, incense cedar and western hemlock. To walk through this magnificent ancient forest is an impressive experience.

Other tree species here include lodgepole pine and golden chinquapin in the drier sites and alder along the streams and at higher elevations. Pacific yew is also quite abundant, as is bigleaf maple in the riparian corridors. Understory species include Oregon grape, sword fern, huckleberry and vine maple.

The upper reaches of Bitter Lick Creek flow through steep terrain that creates countless pools and riffles. As the creek continues south to the lower end of the unit, it pours into a wide valley with a gentle gradient. Bitter Lick Creek is a tributary of Elk Creek (partially

blocked by the half-baked, then half-constructed and now mostly-dead Elk Creek Dam). The Elk Creek watershed has much of the remaining wild coho salmon habitat left in the upper Rogue River.

The unit is excellent habitat for spotted owls and other old-growth dependent species.

A trail leading from the bottom of the creek to the top is lightly maintained and easily passable for a few miles, but the further one goes, the more likely one will get blocked by thick vegetation. A few years ago, the Forest Service placed a clearcut directly on the trail's path to discourage recreational use and as an attempt to disqualify the unit from future wilderness consideration. Though it is quite annoying to tread through the (temporary) devastation (on a hot day, the clearcut can be 30 degrees warmer than the adjoining old-growth forest), the clearcut will eventually grow back and the old-growth forest up the trail is well worth the annoyance.

PROPOSED WILDERNESS

Rogue-Umpqua

LOCATION

12 miles northwest of Prospect

LEVEL IV ECOREGIONS

Southern Cascades (62%), Western Cascades Montane Highlands (38%)

VEGETATION TYPES

Mountain Hemlock/Red Fir (42%), Siskiyou/Mixed Conifer (20%), Siskiyou Mixed Conifer-High Elevation (19%), Oregon White Oak/Ponderosa (18%), Silver Fir/Western Hemlock/Noble Fir (1%), Douglas-Fir/Western Hemlock (<1%)

TERRAIN

Steeply incised canyons.

DRAINAGE SUBBASIN

Upper Rogue

ELEVATION RANGE

2,398-5,401 feet

SIZE

8,028 acres

COUNTY

Jackson

FEDERAL ADMINISTRATIVE UNITS

Rogue River and Umpqua National Forests (Prospect and Tiller Ranger Districts)

USGS 7.5' QUAD MAPS

Abbot Butte, Butler Butte, Sugarpine Creek, Whetstone Point



SANDY LONSDALE

includes the headwaters of the South Umpqua River and some of the Cascades Ecoregion's most important salmon and steelhead habitat, is also located within the proposed Wilderness. The area's rivers and streams are home to cutthroat trout. Such streams within the proposed Wilderness contribute significantly to domestic drinking water supplies downstream.

Numerous species of rare plants have been located in the proposed Wilderness, including California sword fern (*Polystichum californicum*), spring phacelia (*Phacelia verna*), Columbia lewisia (*Lewisia columbiana*) and Umpqua swertia (*Frasera umpquaensis*).

Major tree species here include Douglas-fir, sugar pine, incense cedar, subalpine fir, western hemlock, mountain hemlock, Pacific yew, vine maple, lodgepole pine, grand fir, bigleaf maple, golden chinquapin, alder, Shasta red fir and western white pine.

There are many trails in the proposed Wilderness, including one that follows much of the Rogue-Umpqua Divide. Other recreational opportunities here include hunting, fishing, horseback riding and salt licking.

Native Americans have long used areas in the proposed Wilderness for gathering huckleberries and other fruit and plants, and continue to do so today.

As many as 89,000 acres of the proposed Wilderness are not currently slated for logging, but plans can change. Other threats to the area include off-road vehicles, livestock grazing and road building.

Proposed Santiam Wilderness

Very Big, Very Old Trees and Lots of Wildflowers

Some of the oldest, largest trees remaining in Oregon are found in the Santiam Basin (as well as some of the largest and ugliest clearcuts). Extensive stands of old-growth forest characterize most of the roadless units in the proposed Santiam Wilderness. Rock outcroppings, wildflower meadows, lakes, waterfalls, streams and marshes add to the diversity of these wildlands. The roadless units tend to be steep, which is often the only reason they have not been roaded and logged yet.

The North, Middle and South Santiam Rivers all arise in the Willamette National Forest. The Middle Santiam joins the South Santiam in what is currently Foster Reservoir near Sweet Home. The Little North Santiam River empties into the North Santiam, which along with the South Santiam forms the Santiam River a few miles east of Interstate 5. The mountain streams in the area often have spectacular little

◀ A northern spotted owl in an old-growth forest near the Breitenbush River in the proposed Santiam Wilderness.

Proposed Santiam Wilderness

Some of the units in the proposed Wilderness are highlighted below.

Bachelor Mountain features several miles of ridgeline and canyon trails. It is a haven for songbirds and wild-flowers and may be habitat for the critically endangered lynx. It also contains very large Engelmann spruce and sugar pine. Cascade peaks visible from here range from Mount Hood to Diamond Peak.

Managed by the Bureau of Land Management, **Crabtree Valley** is an island of pristine forest surrounded by a sea of industrial clearcuts. The valley's old-growth Douglas-fir and western redcedar are perhaps 1,000 years old.

Elkhorn Creek contains magnificent old-growth forests and a creek that is home to steelhead and cutthroat trout and flows through one of the most rugged and remote forested gorges in Oregon. The unit contains nearly all of upper Elkhorn Creek and portions of the Cedar Creek watershed.

Gordon Meadows contains lakes and meadows in various stages of succession. Towering over the lakes and meadows is Soapgrass Ridge. Here one will find the Millennium Grove, a unique stand of 700 to 900 year-old — and older — old-growth Douglas-fir interspersed with other younger, 400 to 500 year-old trees.

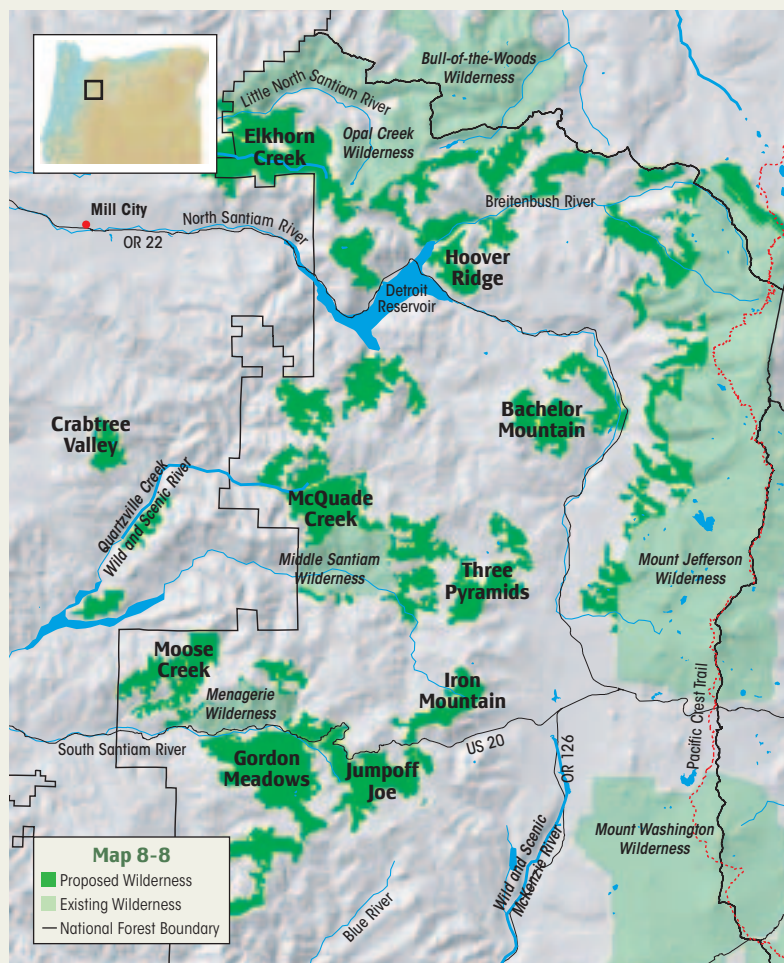
The **Hoover Ridge** unit is a scenic backdrop for anglers and boaters on Detroit Reservoir and is home to nesting bald eagles.

Iron Mountain is featured on page 140.

Jumpoff Joe is an impressive rock outcropping that is easily seen from US 20. The Old Santiam Wagon Road traverses the unit.

Located between the Middle Santiam Wilderness and the Quartzville Creek Wild and Scenic River, **McQuade Creek** contains some massive old-growth forests.

Moose Creek qualifies for federal Wild and Scenic River status and hosts runs of spring chinook salmon and winter steelhead that are facing extinction. The unit's intact low-elevation forest is very rare in the Oregon Cascades.



The **Mount Jefferson Additions** units are numerous roadless and undeveloped areas adjacent to the Mount Jefferson Wilderness. Located downslope from the current Wilderness boundary, these units usually contain larger trees. They were not protected as part of the previous Wilderness designation due to the commercial value of the forest.

Three Pyramids contains a true “cathedral forest” hidden in a remote valley with towering ridges above. The soils in this unit are so unstable that landslides regularly occur in this virgin forest, even without the prodding of roading and logging. Above the forest are wildflowers usually not found in the vicinity, suggesting an ice-age refuge.

LEVEL IV ECOREGIONS

Western Cascades Montane Highlands (72%), Western Cascades Lowlands and Valleys (20%), Cascade Crest Montane Forest (8%), Cascade Subalpine/Alpine (<1%)

VEGETATION TYPES

Douglas-fir/Western Hemlock (70%), Silver Fir/Western Hemlock/Noble Fir (20%), Mountain Hemlock (5%), Cutover/Burned (3%), Douglas-fir/Broadleaf Deciduous (2%), Open Water (<1%), Subalpine Lodgepole (1%), Alpine Barren Fell Field (<1%)

DRAINAGE SUBBASINS

North Santiam, South Santiam

ELEVATION RANGE

984-6,001 feet

UNITS

Bachelor Mountain, Blowout Creek, Box Canyon, Browder Ridge, *Opal Creek Additions* (Byars Rock, Elkhorn Creek, Marten Butte), Byars Creek, Cliffs Creek, Crabtree Valley, Daley Lake, Eagle Canyon, Gordon Meadows, Hall Ridge, Hoover Ridge, Iron Mountain, Jumpoff Joe, Lower Quartz Creek, *Menagerie Wilderness Additions* (Moose Mountain, West Additions), *Middle Santiam Additions* (Gordon Peak, McQuade Creek), Minnie Point, Moose Creek, Mount Bruno, *Mount Jefferson Additions* (Big Meadows, Devils Peak, Grizzly Creek-Puzzle Creek, Lower Triangulation Peak, North Additions, North Breitenbush River, Pine Ridge, Woodpecker Ridge), Olallie Lakes, Pyramid Creek, Sardine Mountain, Scorpion Mountain, Slate Rock, Three Pyramids, Tidbits Mountain-Owl Ridge, Two Girls, Upper Quartzville Creek, Upper Soda, White Bull Mountain, Wildcat Mountain

EXISTING WILDERNESSES INCORPORATED

Menagerie, Middle Santiam, portions of Mount Jefferson and Opal Creek

SIZE

120,095 acres (188 square miles, not including 106,901 acres of currently protected Wildernesses)

COUNTIES

Clackamas, Jefferson, Linn, Marion

FEDERAL ADMINISTRATIVE UNITS

Mount Hood and Willamette National Forests; BLM Salem District

CONGRESSIONAL DISTRICTS

4th, 5th

PROPOSED WILDERNESS

Santiam

LOCATION

16 miles east of Cascadia

LEVEL IV ECOREGIONS

Western Cascades Montane Highlands (94%), Cascade Crest Montane Forest (6%)

VEGETATION TYPES

Silver Fir/Western Hemlock/Noble Fir (29%), Douglas-Fir/Western Hemlock (28%), Mountain Hemlock (24%), Cutover/Burned (11%), Douglas-Fir/Broadleaf Deciduous (8%)

TERRAIN

Rugged and seasonally covered with either snow or wildflowers.

DRAINAGE SUBBASIN

South Santiam

ELEVATION RANGE

3,398-5,795 feet

SIZE

8,803 acres

COUNTY

Linn

**FEDERAL
ADMINISTRATIVE UNIT**

Willamette National Forest (Sweet Home Ranger District)

USGS 7.5' QUAD MAPS

Echo Mountain, Harter Mountain

GEORGE WUERTNER



Wildflowers in the Iron Mountain Unit of the proposed Santiam Wilderness.

FEATURED UNIT

Iron Mountain

Over 300 species of flowering plants belonging to 18 distinct plant communities are found on Iron Mountain, one of many mountains in this unit. Crescent and Echo Mountains, as well as North, South and Cone Peaks are comparably diverse, though not as well known. From the various summits, one can see from Mount Jefferson to Diamond Peak. This unit contains the headwaters of the North, Middle and South Santiam Rivers.

A good trail system that links most of the unit's distinct habitats makes exploring the area easy and enjoyable. Deep, dark forest stands, alpine meadows, rock spires, cliffs and bare volcanic rock contribute to the landscape's diversity.

The area's varied microclimates (dry to wet and warm to cold — all in close proximity), soil types and elevations provide diverse habitats for numerous plant and animal species. The highlands were spared glacial scouring and/or inundation during the last ice age, which contributes to the remarkable geography. Over 60 species found here are unusual or rare for the western Cascade

Mountains, including one species of sagebrush (*Artemisia ludoviciana*).

On a mere quarter section (160 acres) on Echo Mountain Ridge, one can find 80 percent of all the Oregon conifer species found at that elevation. The fifteen species of conifers (along with Pacific yew) that have been identified in the unit are:

- Pacific silver fir
- white fir
- noble fir
- dwarf juniper
- western white pine
- lodgepole pine
- western redcedar
- mountain hemlock
- grand fir
- subalpine fir
- Alaska yellow cedar
- Engelmann spruce
- ponderosa pine
- Douglas-fir
- western hemlock

There are, in fact, sixteen species, if one counts the grand fir-white fir hybrid. Surprisingly, sugar pine is not found here, although it is found elsewhere in the proposed Wilderness. This may be because this area is located near the northern edge of the sugar pine's range, or perhaps there just wasn't room for it here.

waterfalls, cataracts and crystalline pools.

Recognizing the area's notable spring chinook and winter steelhead, the American Fisheries Society has identified a Little North Santiam aquatic diversity area that includes significant roadless lands. Other fish species found here include native cutthroat and coastal rainbow trout.

The city of Salem collects its water from the North Santiam River and has requested that Congress "enact legislation to increase the protection of forests on federal lands in the North Santiam Watershed." Lebanon, Sweet Home and Albany depend on water from the South Santiam River, while Jefferson drinks from the mainstem Santiam River.

The forests in this proposed Wilderness are mostly dominated by Douglas-fir, especially at lower elevations, but also include numerous other species. As the elevation increases, so does the number of true firs in the mix. At the highest elevations are mountain hemlock. The area also contains alder and other hardwoods, with an understory of rhododendron, Pacific yew, vine maple, salmonberry, salal and Oregon grape.

Mammal species here include beaver, black bear, coyote, cougar, black-tailed deer, Roosevelt elk, marten, coyote, mink, bobcat, red tree vole and possibly lynx. Small game birds include ruffed grouse, blue grouse and mountain quail. Waterfowl include teal and wood ducks. Other notable bird species include northern spotted owl, peregrine falcon, osprey and bald eagle. The rough-skinned newt, Cascades frog, long-toed salamander and boreal toad may be found in the wettest habitats created by fog drip, rain and/or snow.

Recreational opportunities include hiking, horseback riding, hunting, fishing, botanizing, birding and tree identification.

Approximately 66,000 acres of the proposed Wilderness are nominally off-limits to logging. Other threats to the area include off-road vehicles, road building and mining.

Proposed South Cascades Wilderness High-Elevation Parklands and Lower-Elevation Forests

From Crater Lake to the southern end of the Cascade Range in Oregon, the proposed South Cascades Wilderness includes several unprotected Cascade Crest peaks, low elevation forests and critical fish habitat. Much, but not all, of the region's high elevation forests are already protected in Wilderness areas. The unprotected high elevation forests, and those at low elevations, dominated by Douglas-fir on the west side and by ponderosa pine on the east, remain vulnerable to logging and are threatened with

The National Park Service is carefully reintroducing fire onto their lands within the proposed South Cascades Wilderness. ►

ELIZABETH FERRY, ENVIRONMENTAL IMAGES



LEVEL IV ECOREGIONS

High Southern Cascades Montane Forest (63%), Southern Cascades (15%), Cascade Subalpine/Alpine (11%); East Cascades Slopes and Foothills Level III Ecoregion: Pumice Plateau (6%), Klamath/Goose Lake Basins (1%), Southern Cascade Slope (<1%); Klamath Mountains Level III Ecoregion: Oak Savanna (3%)

VEGETATION TYPES

Mountain Hemlock/Red Fir (50%), Siskiyou Mixed Conifer-High Elevation (11%), Subalpine Lodgepole (11%), Siskiyou Mixed Conifer (8%), Mountain Hemlock/Parklands (6%), Marsh/Wet Meadow (4%), Cutover/Burned (2%), Ponderosa on Pumice (2%), Mountain Hemlock/Red Fir/Lodgepole (1%), Lodgepole on Pumice (1%), Ponderosa/Douglas-fir/True Fir (1%), Open Water (1%), Douglas-fir/Western Hemlock (1%), Douglas-fir/Ponderosa/True Fir (<1%), Mountain Hemlock (<1%), Oregon White Oak/Pacific Madrone (<1%), Oregon White Oak/Ponderosa (<1%), Ponderosa/Lodgepole (<1%), Siskiyou Mixed Evergreen (<1%)

DRAINAGE SUBBASINS

Upper Klamath, Upper Klamath Lake, Upper Rogue

ELEVATION RANGE

2,080-8,929 feet

UNITS

Brown Mountain, Crater Lake Rim, Dead Soldier Meadow, Deer Creek, Dunlop Meadows, Farlow Hill, Forked Horn Springs, Ginkgo Creek, Green Springs Mountain, Grizzly Peak, Heppsie Mountain, Lake West, Mill Creek, Mount Scott, *Mount Thielsen Additions* (Cottonwood Creek, Miller Creek, Red Cone Spring), *Mountain Lakes Additions* (Clover Creek Headwaters, Little Aspen Butte, Varney Creek, West Additions), North Crater, Poole Hill, Red Blanket Mountain, Red Cone, Service Glades, *Sky Lakes Additions* (Beaver Creek, Big Meadows, Black Bear Swamp, Cedar Spring, Cherry Creek, Crane Creek Headwaters, Dole Spring, Imnaha Creek-Sumpter Creek, Lower Mount McLoughlin, Pelican Butte, Red Blanket Creek, Rye Spur, Sevenmile Creek), Slinger Rock, Sun Creek, Union Creek, West of Corral Springs, Wheeler Creek

EXISTING WILDERNESSES INCORPORATED

portion of Mount Thielsen, Mountain Lakes, Sky Lakes

SIZE

299,703 acres (468 square miles, not including 165,029 acres of currently protected Wilderness)

COUNTIES

Douglas, Jackson, Klamath

FEDERAL ADMINISTRATIVE UNITS

Rogue River and Winema National Forests; BLM Medford District; Crater Lake National Park

CONGRESSIONAL DISTRICTS

2nd, 4th

Proposed South Cascades Wilderness

Some of the units of the proposed Wilderness are highlighted below.

Brown Mountain straddles the Cascade Crest and includes several miles of the Pacific Crest National Scenic Trail. It's a scramble over fresh talus to bag this peak (7,311'). Brown Mountain is a small shield volcano capped with a cinder cone. Large boulder fields dominate the upper slopes. Vegetation is sparse with some Shasta red fir dotting the slopes. Alder and willows grow in the wetter spots where snowmelt accumulates. Streams are non-existent.

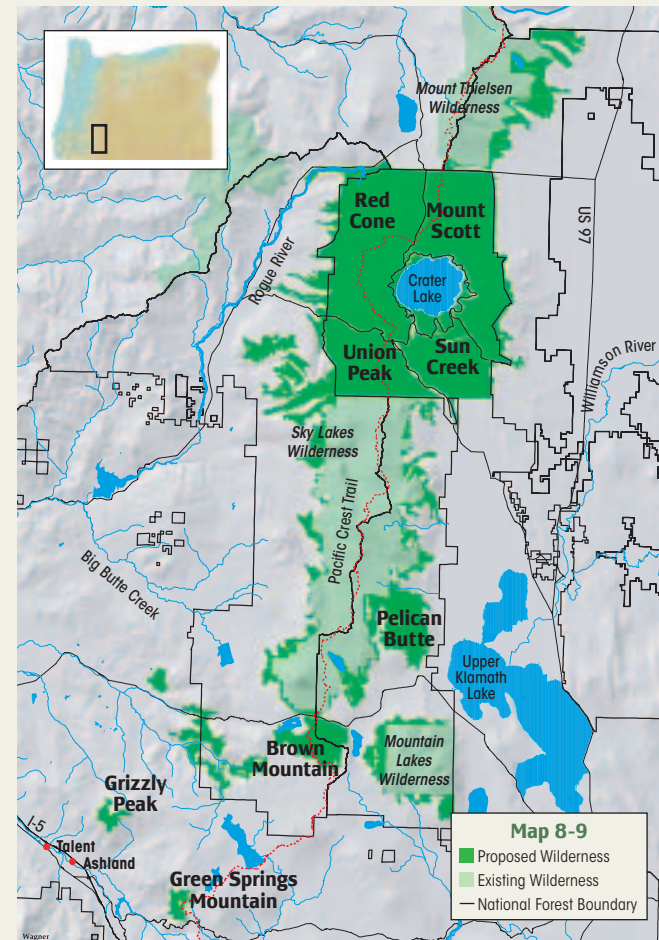
The Crater Lake National Park units include **Mount Scott** and other notable high points on and near the Cascade Crest such as **Red Cone** and **Union Peak**. They also include the head of the Rogue River and the beginning of the Rogue River Trail. While logging and mining do not threaten these park units, the National Park Service could revert to its road-building and over-development past and open these pristine areas to the abuses of the outside world. Protecting the park backcountry as Wilderness will ensure that the park's front-country development doesn't expand any further.

Sun Creek, in the southeast corner of the park, is critical habitat for the endangered bull trout. The park and surrounding areas were once the site of the late Mount Mazama, which, through a series of eruptions, built itself to about 12,000 feet elevation (higher than Mount Hood). Then about 7,700 years ago, Mount Mazama blew its top, scattering a layer of ash over eight states and three Canadian provinces. The eruption was 42 times greater than that of Mount Saint Helens in 1980. The magma chamber collapsed and eventually filled with rain and snowmelt, forming Crater Lake, the deepest lake (1,932') in the United States and the seventh deepest lake in the world. If one takes the time to leave the crowds along Crater Lake's rim road, one will find oneself in some of the wildest and least visited forestlands in Oregon.

The Pacific Crest National Scenic Trail traverses the **Green Springs Mountain** unit.

Grizzly Peak is a small unit, but the 5,920-foot peak dominates the view from nearby Ashland.

The **Mount Thielsen Additions** units include small but important sections that were left out of the original Wilderness because they might have had a commercially valuable log or two. Unprotected wildlands near Miller Lake are also included. Miller Lake was once home to the Miller Lake lamprey, thought to be extinct after being intentionally poisoned by state fish "biologists" to make room for exotic, more sporting fish species in the lake. Fortunately, some Miller



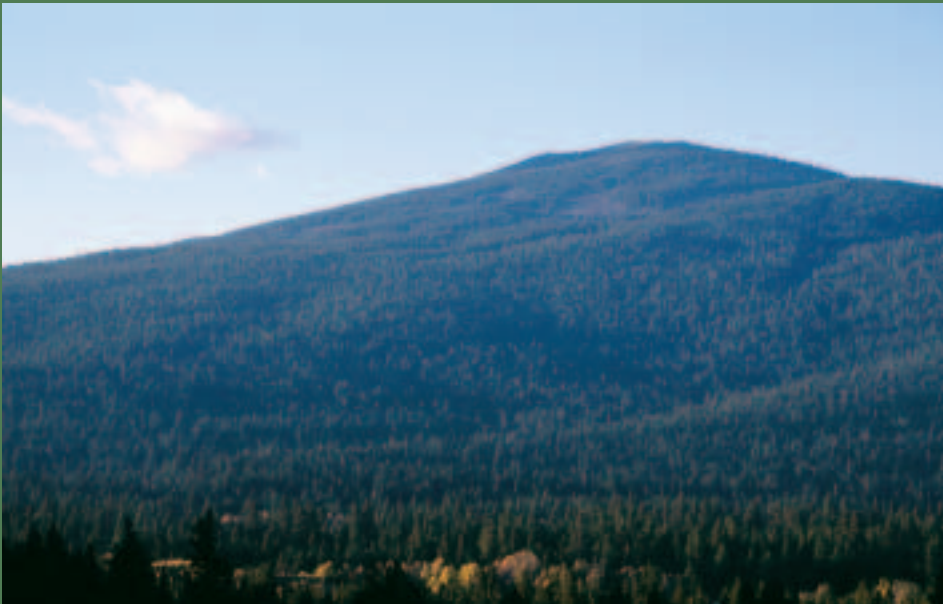
Lake lamprey survived in the creek below the lake where they have been recently rediscovered. It is hoped that, in this more enlightened time, they will be protected and conserved.

The **Mountain Lakes Additions** units would round out a perfect square township (Township 37 South, Range 6 East, Willamette Meridian) protected as Wilderness, while adding some lower elevation areas and associated ecosystem diversity, including spotted owl and wolverine habitat.

Pelican Butte is featured on page 143.

The **Sky Lakes Additions** units also include lower elevation lands, more diverse forests and larger trees.

SANDY LONSDALE



Pelican Butte has been and will always be threatened with ski area development and logging until protected as Wilderness.

FEATURED UNIT

Pelican Butte

There are no pelicans on Pelican Butte. It was named after nearby Upper Klamath Lake's Pelican Bay, where pelicans are numerous. Pelican Butte should have been included in the Sky Lakes Wilderness, designated by Congress in 1984. However, fantasies of a downhill ski area and the big timber on the lower slopes prevented its inclusion.

The cone-shaped Pelican Butte is an andesite shield volcano located east of the Cascade Crest and entirely within the Klamath River Basin. The lower three-fifths of the butte is forested with mature and old-growth ponderosa pine, white fir, Shasta red fir, mountain hemlock and quaking aspen. The upper two-fifths is open, often exposed lava and rocky terrain that also supports whitebark pine. There are some lakes, meadows and a few streams with associated riparian areas in the unit.

The plant communities here include mixed conifer/snowbrush-bearberry, white fir/chinquapin-boxwood-prince's pine, Shasta red fir-white fir/chinquapin-prince's pine/sedge, mountain hemlock/grouse huckleberry and white fir-alder/shrub meadow.

The Klamath Basin is home to the largest wintering

population of threatened bald eagles in the lower 48 states. In the winter, up to 100 bald eagles can be found roosting near the lake, at the northern base of Pelican Butte. As many as 34 endangered, threatened, sensitive or indicator species may be found on the butte, much of which is critical habitat for the threatened northern spotted owl and a stronghold for pileated and white-headed woodpeckers. Both bald eagles and spotted owls are protected under the Endangered Species Act. Pelican Butte is also excellent habitat for wolverine, lynx, marten and fisher. Its streams are home to redband trout and endemic mollusk species.

The 30 to 40 inches of annual precipitation (which is mostly snow that is gone by July) on the butte disappears into the very porous soils. The water re-emerges downslope as springs that feed into the lake, supplying pristine water to Pelican Bay, itself a critical source of fresh water in one of the most polluted (nutrient rich) lakes in Oregon. Farther out in the lake the water pH can become as alkaline as dishwashing detergent by late summer. The endangered Qapdo and C'wam (a.k.a. Lost River and shortnose suckers), along with redband trout, find a seasonal refuge in Pelican Bay.

Much of the Pelican Butte unit has been designated a late successional reserve under the Northwest Forest Plan. Although lands in the unit are also designated for semi-primitive recreation, the Forest Service has entertained fantasies (and will likely again) of creating a \$34 million resort ski area on the butte (hardly "semi-primitive"). In addition to disturbing and displacing the native wildlife and degrading water quality, a ski facility would disturb Native Americans' use of Pelican Butte for vision quests and prayer. One year, guerrilla conservationists allegedly reopened an old trail up the butte to Francis Lake. The trail was long abandoned by the Forest Service, a common practice when the agency is seeking to log an area. Today the only scar that defiles the upper reaches of Pelican Butte's otherwise roadless lands is a rough jeep trail to the butte's summit to service some electronics facilities and a fire lookout.

PROPOSED WILDERNESS
South Cascades

LOCATION
20 miles south-southwest of Fort Klamath

LEVEL IV ECOREGIONS
High Southern Cascades Montane Forest (57%), Cascade Subalpine/Alpine (43%)

VEGETATION TYPES
Mountain Hemlock/Red Fir (47%), Mountain Hemlock/Parklands (38%), Siskiyou Mixed Conifer-High Elevation (14%), Cutover/Burned (2%), Marsh (1%), Wet Meadow (<1%), Subalpine Lodgepole (<1%)

TERRAIN
Fujiama-like Cascade peak.

DRAINAGE SUBBASIN
Upper Klamath Lake

ELEVATION RANGE
4,200-8,036 feet

SIZE
14,705 acres

COUNTY
Klamath

FEDERAL ADMINISTRATIVE UNIT
Winema National Forest (Klamath Ranger District)

USGS 7.5' QUAD MAPS
Crystal Bay, Lake of the Woods North, Pelican Butte, Pelican Bay

development.

The size and quality of the wilderness habitat and healthy populations of prey species (deer and elk) in Oregon's South Cascades have led wildlife biologists to identify the area as suitable for wolf reintroduction. The area also provides abundant habitat for other sensitive predator species, including lynx, marten, fisher and wolverine.

The mighty Rogue River begins in the South Cascades, as do numerous tributary streams that drain into Upper Klamath Lake and the Klamath River.

The American Fisheries Society has identified several aquatic diversity areas within the proposed Wilderness. Both coastal rainbow and redband trout are found in the area, as are the diminishing Klamath River and Pacific lamprey. The proposed Wilderness is a certain source of clean water for endemic and endangered species of lake fish (some that are pejoratively called "suckers") and lamprey. The proposed Wilderness also supplies drinking water to Medford.

Recreational opportunities in the area include hiking, backpacking, horseback riding, hunting, fishing, cross-country skiing and sucker watching. The proposed Wilderness would protect several miles of the Pacific Crest National Scenic Trail.

Approximately 72,000 acres of the proposed South Cascades Wilderness is not currently scheduled for logging. The remainder is at risk. Off-road vehicles and downhill ski developments are the other major threats to the area.

Proposed Three Sisters Wilderness Additions

Magnificent Lower-Elevation Forests on both sides of the Cascade Crest

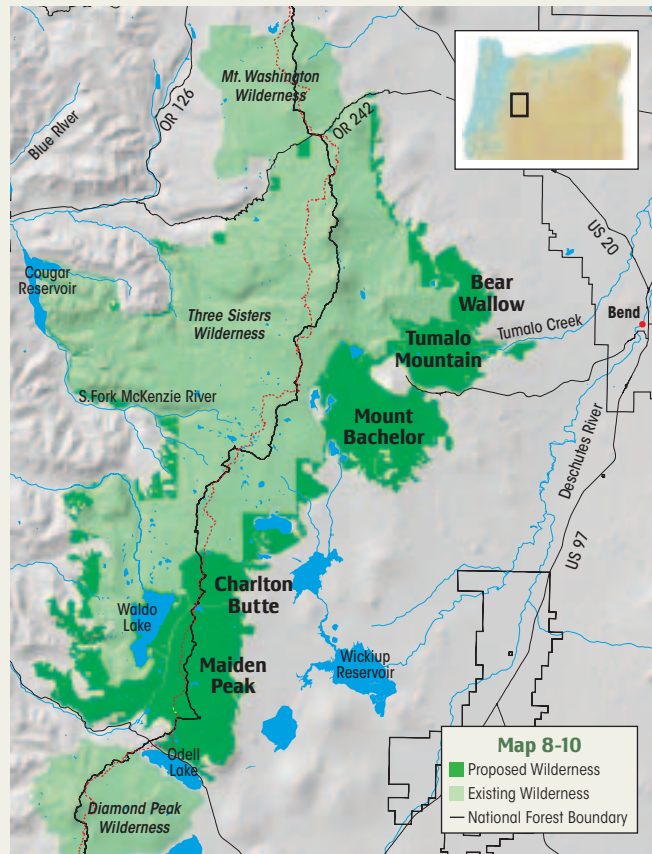
The current Three Sisters and Waldo Lake Wilderness complex constitutes the largest protected contiguous wildland in the Oregon Cascades. It could be even larger. The contiguous Waldo "Lake" Wilderness was established separately in 1984, though it was a logical addition to the long-established Three Sisters Wilderness. When Congress finally did create Waldo Lake Wilderness, it yielded a political benefit to the Oregon Congressional delegation who were perceived as "saving Waldo Lake," although the designation fell short of actually including the lake (see Featured Unit: *Waldo Lake* on page 146).

The proposed Three Sisters Wilderness Additions encompasses portions of the headwaters of the North Fork of the Middle Fork Willamette, Middle Fork Willamette,

Lower Rosary Lake in the Maiden Peak Unit of the proposed Three Sisters Wilderness Additions. ►



Proposed Three Sisters Wilderness Additions



Some of the units in the proposed Wilderness are highlighted below.

Bear Wallow is important elk summer range. Willows are common along the creeks with occasional pockets of bog birch or quaking aspen. Major tree species here are lodgepole pine and mountain hemlock with some mixed conifer species at the lower elevations.

Charlton Butte contains mostly mountain hemlock and lodgepole pine forest with little apparent understory. Much of the unit burned in 1996 and is recovering well. Several trails, including the Pacific Crest Trail are available. A trail from Charlton Lake passes through lush meadows just before reaching Found Lake. From there, Hidden Lake is a cross-country climb uphill.

Maiden Peak includes several miles of the Cascade Crest, paralleled by the Pacific Crest National Scenic Trail. Maiden Peak (7,818') and The

Twins (7,362') are the highest points, with 360° panoramic views. Four-fifths of the forest is an unbroken swath of mature and old-growth mountain hemlock interspersed with scattered meadows. Lodgepole pine predominates most of the other fifth, along with some western white pine, subalpine fir, grand fir, Engelmann spruce and ponderosa pine. There are seven major lakes in the unit (including Rosary and Bobby Lakes) and numerous minor lakes and ponds. Gold Lake Bog Research Natural Area on the east end of Gold Lake is suspected breeding habitat for solitary sandpipers. If true, it is the only known nesting site for this variety of sandpiper in the lower 48 states.

Mount Bachelor includes most of Mount Bachelor, though it does not include any lands within the permit area of the Mount Bachelor Ski Area. While a good portion of this Cascade peak has been sacrificed for downhill skiing, not all of it should be. The headwaters of the Deschutes River and water for Lava Lake and Little Lava Lake come from this unit, and the very rare pumice grape fern (*Botrychium pumicola*) is found in the unit's alpine and montane habitats.

Tumalo Creek is the water supply for the city of Bend, which benefits from the well-developed riparian ecosystems along Tumalo Creek and its tributaries that contribute to both the quality and quantity of water in the creek. Though generally a high elevation forest of mountain hemlock, lodgepole pine and Engelmann spruce, ponderosa pine is also found at lower elevations in this unit. Wet meadows and springs are plentiful here. Coastal rainbow trout are found in Bridge Creek. The unit is also an important elk calving area.

The **Three Sisters Additions** and **Waldo Lake Additions** are those numerous roadless areas on the borders of the existing Wilderness areas that were not included in earlier Wilderness legislation, usually because timber interests prevented it. They are mostly forested lower elevation areas that add diversity to the Wilderness, but also include the south faces of Fuji Mountain (7,144') and Mount Ray (7,002').

Waldo Lake is featured on page 146.

LEVEL IV ECOREGIONS

Cascade Crest Montane Forest (73%), Western Cascades Montane Highlands (15%), Western Cascades Lowlands and Valleys (5%), Cascade Subalpine/Alpine (2%); East Cascades Slopes and Foothills Level III Ecoregion: Ponderosa Pine/Bitterbrush Woodland (5%), Pumice Plateau Basins (<1%), Pumice Plateau (<1%)

VEGETATION TYPES

Mountain Hemlock/Red Fir (19%), Subalpine Lodgepole (16%), Mountain Hemlock (15%), Lodgepole on Pumice (15%), Douglas-fir/Broadleaf Deciduous (9%), Mountain Hemlock/Red Fir/Lodgepole (5%), Mountain Hemlock/Parklands (4%), Silver Fir/Western Hemlock/Noble Fir (4%), Ponderosa on Pumice (4%), Open Water (3%), Ponderosa/Douglas-fir/True Fir (2%), Ponderosa/Lodgepole (1%), Cutover/Burned (1%), Subalpine Fir/Engelmann Spruce Parklands (<1%), True Fir/Lodgepole/Western Larch/Douglas-fir (<1%), Lodgepole/True Fir (<1%), Alpine Barren Fell Field (<1%), Open Lava (<1%)

DRAINAGE SUBBASINS

McKenzie, Middle Fork Willamette, Upper Deschutes

ELEVATION RANGE

1,332- 8,957 feet

UNITS

Bear Wallow, Charlton Butte, Cultus Mountain, Maiden Peak, Mount Bachelor, Skyliner, *Three Sisters Additions* (French Pete Addition, Gold Creek, Huckleberry Lake, Lava Camp, Mount David Douglas, Roaring River Headwaters, White Branch Creek), Tumalo Creek, *Waldo Lake Additions* (North Bank, Salmon Creek, South Fugi Mountain, South Lucky Lake, Three Prairies, Waldo Lake)

EXISTING WILDERNESSES INCORPORATED

Three Sisters, Waldo Lake

SIZE

196,214 acres (307 square miles, not including 325,908 acres of currently protected Wilderness)

COUNTIES

Deschutes, Klamath, Lane

FEDERAL ADMINISTRATIVE UNITS

Deschutes and Willamette National Forests

CONGRESSIONAL DISTRICTS

2nd, 4th



Waldo Lake in the Waldo Lake Unit of the proposed Three Sisters Wilderness Additions.

PROPOSED WILDERNESS

Three Sisters Additions

LOCATION

20 miles east of Oakridge

LEVEL IV ECOREGION

Cascade Crest Montane Forest (100%)

VEGETATION TYPES

Open Water (59%), Mountain Hemlock/Red Fir (29%), Subalpine Lodgepole (11%), Mountain Hemlock (1%)

TERRAIN

Mostly perfectly flat.

DRAINAGE SUBBASIN

Middle Fork Willamette

ELEVATION RANGE

5,410-5,971 feet

SIZE

9,990 acres

COUNTY

Lane

FEDERAL ADMINISTRATIVE UNIT

Willamette National Forest (Middle Fork Ranger District)

USGS 7.5' QUAD MAPS

Irish Mountain, Waldo Lake, Waldo Mountain

FEATURED UNIT

Waldo Lake

The present Waldo “Lake” Wilderness does not actually include Waldo Lake. The public clamor for protection for the area was sufficient in 1984 for Congress to designate the lands around the lake as Wilderness, but the lake itself was left out of the designation because of perceived conflicts with Wilderness management.

Oregon's 13th largest lake, Waldo Lake sits in the Oregon Cascades at 5,414-foot elevation, is 6,298 acres in size and has a shoreline of 21.7 miles. The drainage area of the lake watershed is 19,840 acres. Maximum lake depth is 420 feet, with an average depth of 128 feet. Natural replacement of all the water in the lake takes 32 years.

The lake's water quality exceeds that of laboratory-grade distilled water. Waldo Lake as one of the most ultraoligotrophic (meaning “damn few nutrients”) lakes in the world. Several factors make this so. No perennial streams enter the lake. The surrounding geology is so stable that little sediment reaches the lake. The unproductive soils that do exist there are thin and only support the shortest of growing seasons due to the long snow cover. A large percentage of precipitation received in the watershed falls directly on the lake. There is relatively little development in the watershed.

The lake's extraordinary cobalt blueness is due to the depth and clarity of the water. There are very few suspended particles and plankton in the lake. To observe the water's clarity, scientists drop a Secchi (black and white) disk into the lake. In Waldo Lake, disks are still visible at depths of 66 to 100 feet and have been seen at 140 feet. A Secchi disk in a typically eutrophic lake might not be visible much beyond two to six feet. (I once canoed at midnight under a full moon on Waldo Lake and finally figured out that the dark moving thing at the bottom of the lake was my shadow.)

Eutrophication happens. Natural eutrophication is one thing (all lakes eventually fill with sediment), but cultural (human-caused) eutrophication is quite another. Core samples of sediment have shown very low rates of eutrophication for several millennia. However, waterborne phytoplankton (plants) production is up, as are the number and kinds of tiny zooplankton (animals). The amount of nitrogen and phosphorus in the water limit a lake's primary biological productivity. Both are at naturally low levels in Waldo Lake. Nitrogen enters the lake from mats of cyanobacteria,

formerly called blue-green algae, which are fed by the deep penetrating sunlight. They in turn fix the nitrogen at the bottom of the lake. However, studies have shown that phosphorus (not nitrogen) is stimulating algal growth in Waldo Lake.

Fish stocking has been discontinued because fish are not native to Waldo Lake and they hasten eutrophication. Unfortunately, the increased nutrients, sediments and phosphorus (and silica) in the lake are coming from increased human use and are degrading water quality.

The Forest Service tried to take steps to reduce human impact and pollution in the lake, including limiting camping around the lake, restricting motorized boating to electric motors, closing or replacing leaking toilets, requiring the use of porta-potties and encouraging “leave no trace” camping techniques (including contemporaneous removal of any human-generated phosphorus-containing deposits). However, a rich timber baron who wanted unlimited access for his powerboat appealed the decision.

Waldo Lake is an Oregon Scenic Waterway and empties into North Fork of the Middle Fork of the Willamette River, a unit of the National Wild and Scenic Rivers System. Both designations were useful in preventing a hydroelectric project that would have reopened an abandoned underwater dam at Klov Dahl Bay on the lake, but neither designation adequately protects Waldo Lake from other sorts of madness in the future. Amazingly, despite the fact that the lake is thought to be the purest large water body in the world, it has not been designated an Outstanding Resource Water by the Oregon Department of Environmental Quality — a designation which could help protect its water quality from degradation.

It is not too much to ask that the purest large body of water in the world be protected as Wilderness. Power boating should end immediately. Numerous comparably sized lakes and reservoirs (many nearby) are open to motorized use. Wind and human-powered boating on this unique lake are both adequate and preferred.

Relatively extreme measures are necessary to protect the extraordinary lake. Waldo Lake is not your average high mountain lake to lounge on deck with a fishing pole in one hand and a beer in the other. Experiencing Waldo Lake should not be casual and transient, but rather cosmic and transcendent.

GEORGE WUERTHNER



Maiden Peak in the Maiden Peak Unit of the proposed Three Sisters Wilderness Additions.

McKenzie and Deschutes Rivers.

The forests range from low-elevation old-growth Douglas-fir and western redcedar on the west, up through true-fir forests, and then to high elevation forests of lodgepole, mountain hemlock and Engelmann spruce. As the elevation drops on the east side of the crest, there are more true firs (though not always the same kind) and eventually ponderosa pine. Understory species include beargrass, huckleberry, vine maple, ocean spray, salal, Oregon grape, rhododendron, golden chinquapin, grouse huckleberry, manzanita, sedge, needlegrass, snowbrush, penstemon and lupine.

The area is not entirely forested. There are also wet meadows, dry prairies, bare basalt outcroppings, cascading streams, a few large lakes (one of which, Waldo, is very large), numerous small lakes and countless ponds in terrain that varies from deep, steep canyons, rocky ridges and volcanic peaks, to pumice flats.

The varying elevations in this unit are home to over 200 fish and wildlife species. Mammal species include both black-tailed and mule deer, Roosevelt and Rocky Mountain elk, coyote, cougar, marten, fisher, wolverine and quite possibly lynx. Bird species of special significance include the northern spotted owl, peregrine falcon and bald eagle.

Recognizing the important bull and coastal rainbow trout habitat here, the American Fisheries Society has identified several aquatic diversity areas in parts of the proposed Wilderness.

Recreational opportunities include short hikes, long hikes and even much longer hikes by way of the Pacific Crest National Scenic Trail. Cross-country skiing, snowshoeing, birding, fishing, hunting, photography, horseback riding and canoeing are also popular.

Approximately 119,000 acres of the proposed Wilderness is nominally protected from logging. The remainder is not. Off-road vehicles and roading are the other major threats to the area.

Proposed Upper Deschutes Wilderness

Cool Mountain Lakes and Old-Growth Mountain Hemlock

Most — but not quite all — of the Upper Deschutes River Basin has been roaded and logged. The proposed Upper Deschutes Wilderness includes all the remaining wildlands in the Upper Deschutes River Basin, the vast majority of which are located on and near the Cascade Crest between the Diamond Peak and Mount Thielsen Wilderness areas.

Most of the forest in the Upper Deschutes consists of vast amounts of high elevation mountain hemlock with a grouse huckleberry understory. Vegetation connoisseurs can further distinguish distinct plant communities by the other minor species in the understory. Other major tree species here include Engelmann spruce, lodgepole pine and whitebark pine. Some ponderosa pine and other mixed conifer species are found at the lowest elevations. Other understory species include manzanita, ceanothus, snowbrush and golden chinquapin. At mid-elevations, stringer meadows and sedge wetlands or blueberry/forb wetlands provide diversity to the vast lodgepole forests. However, almost none of the forest qualifies as “commercial” timber.

Within the proposed Wilderness, the Cascade Crest is a long high divide with only one major peak, Cowhorn Mountain, which used to be known as Little Cowhorn Mountain to distinguish it from a larger cowhorn-shaped peak nearby (one has to stretch one’s imagination), now known as Mount Thielsen. The “cowhorn” on Cowhorn Mountain fell off naturally during the nineteenth century.

The Upper Deschutes River drainage is a center of rarity and endemism for both plants and animals. Over 110 species of wildlife are found in the proposed Wilderness.

LEVEL IV ECOREGIONS

Cascade Crest Montane Forest (50%), High Southern Cascades Montane Forest (11%), Cascade Subalpine/Alpine (10%); East Cascade Slopes and Foothills Level III Ecoregion: Pumice Plateau (21%), Pumice Plateau Basins (6%), Ponderosa Pine/Bitterbrush Woodland (2%)

VEGETATION TYPES

Lodgepole on Pumice (18%), Mountain Hemlock/Red Fir (17%), Subalpine Lodgepole (16%), Ponderosa/Douglas-fir/True Fir (15%), Ponderosa/Lodgepole (11%), Ponderosa on Pumice (8%), Mountain Hemlock/Red Fir/Lodgepole (5%), Douglas-fir/Ponderosa/True Fir (2%), Mountain Hemlock/Parklands (2%), Ponderosa (2%), Cutover/Burned (1%), Open Lava (1%), Open Water (1%)

DRAINAGE SUBBASINS

Little Deschutes, Upper Deschutes

ELEVATION RANGE

4,340-7664 feet

UNITS

Black Rock, Cowhorn Mountain, Crane Prairie, Davis Lake Lava Flow, Davis Mountain, Deer Creek, *Diamond Peak Additions* (Whitefish Creek), *Mount Thielsen Additions* (Little Deschutes River-Big Marsh Creek, Upper Deschutes River), Odell Creek, Siah Butte, Snow Creek, Walker Rim, West of Corral Springs

EXISTING WILDERNESSES INCORPORATED

portions of Diamond Peak, Mount Thielsen and Mount Washington

SIZE

59,150 acres (92 square miles, not including 55,412 acres of currently protected Wildernesses)

COUNTIES

Deschutes, Klamath

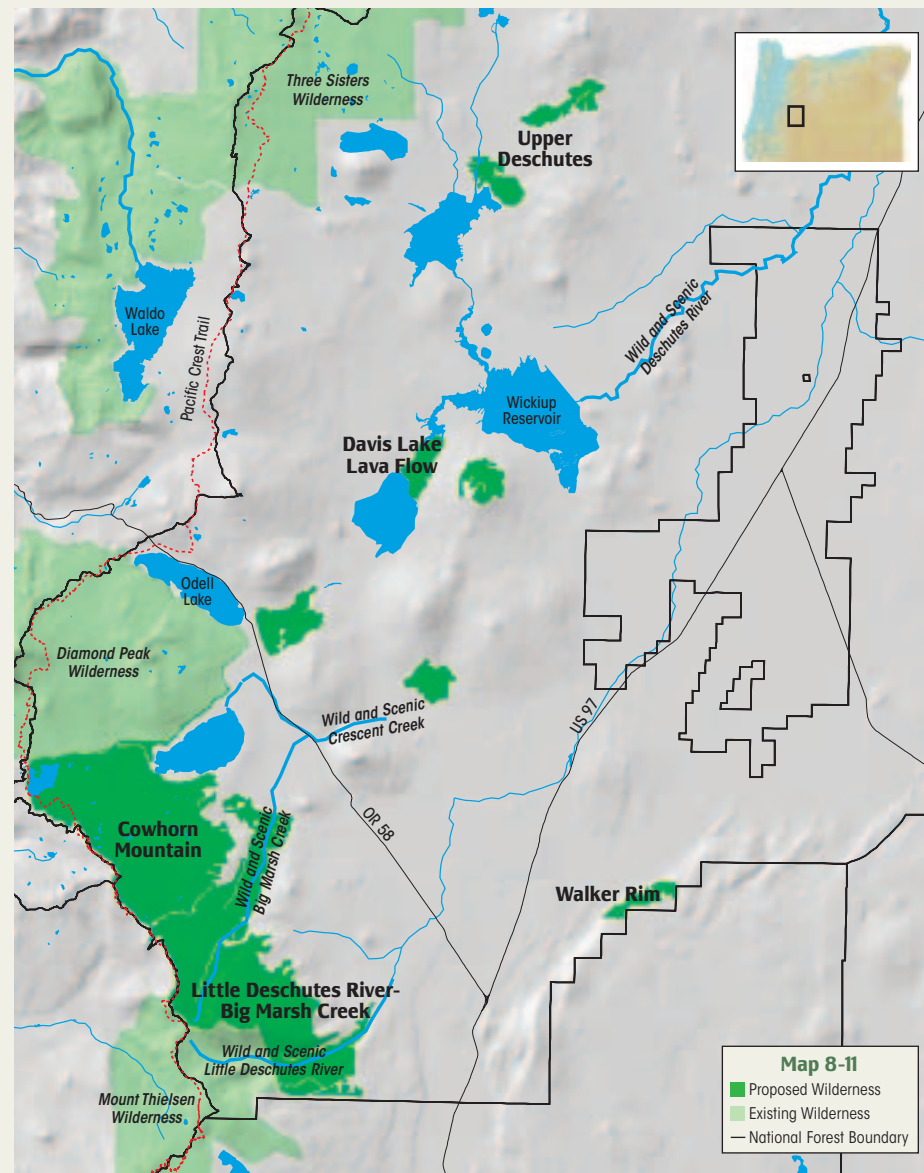
FEDERAL ADMINISTRATIVE UNITS

Deschutes and Winema National Forests

CONGRESSIONAL DISTRICT

2nd

Proposed Upper Deschutes Wilderness



Some of the units in the proposed Wilderness are highlighted below.

The **Cowhorn Mountain** unit straddles the crest of the Cascades and includes lands in both the proposed North Umpqua and Upper Willamette Wilderness areas. The unit has a relatively high concentration of small mountain lakes, many with native redband trout.

Davis Lake Lava Flow is a relatively recent and quite stark lava flow.

The **Little Deschutes River-Big Marsh** unit is featured on page 149.

The **Upper Deschutes** includes several miles of the free-flowing Deschutes River above Crane Prairie Reservoir.

Walker Rim contains part of the most northern and western example of basin and range geology.



Big Marsh in the proposed Upper Deschutes Wilderness. As the natural water regime is restored, conifers that encroached during the ranching era die off.

FEATURED UNIT

Little Deschutes River- Big Marsh Creek

The Little Deschutes River arises in a spectacular and unique narrow U-shaped glacial valley in the Mount Thielsen Wilderness, appropriately called the Little Deschutes Canyon. However, the river quickly leaves the protected Wilderness and meanders for several miles through lower elevation and picturesque wildlands. The Little Deschutes features a well-developed riparian system with healthy stringer meadows. The surrounding forest is primarily lodgepole pine, with some sugar pine. Roosevelt elk are numerous. A narrow corridor along the entire Little Deschutes River is a unit of the National Wild and Scenic Rivers System.

some of these dikes have been breached so Big Marsh can be a big marsh again.

Big Marsh Creek once had bull trout and can again, if stream temperatures downstream of the marsh become cold enough to accommodate them. This cooling will occur as the marsh regains its natural reservoir function and the majority of the creek's flow moves through the marsh subsurface — away from the sun. The overhanging banks of the creek and marsh are excellent habitat for native redband trout. The entire Big Marsh Creek is a thriving riparian community with a high diversity of sedges and willow species.

Several pairs of sandhill cranes nest in the marsh. It is unusual to find sandhill cranes this far west. It is unforgettable when one hears the cranes' call and see its dance while within sight of the snow-capped crest of the Cascade Range. The marsh is also popular with Roosevelt elk and northern harrier.

Big Marsh Creek begins as a trickle near the Cascade Crest. It is named for the big marsh it flows through on its way to its confluence with Crescent Creek. Both creeks are designated Wild and Scenic Rivers. Big Marsh, a unique high-elevation marsh, was long abused as a cattle ranch, but was eventually acquired by the Forest Service with the goal of restoring the marsh to natural conditions. Much of the marsh was diked and drained for the convenience of livestock. Now

PROPOSED WILDERNESS

Upper Deschutes

LOCATION

14 miles southwest of Crescent

LEVEL IV ECOREGIONS

High Southern Cascades Montane Forest (46%), Cascade Crest Montane Forest (12%); East Cascades Slopes and Foothills Level III Ecoregion: Pumice Plateau (42%)

VEGETATION TYPES

Ponderosa/Douglas-Fir/True Fir (33%), Ponderosa/Lodgepole (27%), Subalpine Lodgepole (10%), Mountain Hemlock/Fir/Lodgepole (10%), Lodgepole on pumice (6%), Cutover/Burned (4%), Douglas-Fir/Ponderosa/True Fir (4%), Mountain Hemlock/Red Fir (4%), Ponderosa (2%)

TERRAIN

Rocky Cascade Crest and terraces.

DRAINAGE SUBBASINS

Little Deschutes, Upper Deschutes

ELEVATION RANGE

4,698-7,434 feet

SIZE

23,287 acres

COUNTY

Klamath

FEDERAL ADMINISTRATIVE UNITS

Deschutes and Winema National Forests (Crescent and Chemult Ranger Districts)

USGS 7.5' QUAD MAPS

Burn Butte, Cowhorn Mountain, Crescent Lake, Tolo Mountain



Major mammal species include cougar, black bear, marten, mink, beaver, weasel, snowshoe hare, fisher, wolverine and Roosevelt elk, as well as both black-tailed and mule deer. The area may also be suitable lynx habitat.

Major bird species found in the area include bald eagle, osprey, northern goshawk, Cooper's hawk, sharp-shinned hawk, blue grouse, ruffed grouse and numerous species of woodpeckers.

The Pacific Crest National Scenic Trail traverses the area, as do portions of the older and lower-elevation Oregon Skyline Trail. Numerous other trails offer easy access to this wilderness. Hiking, hunting, fishing, canoeing, horseback riding, wildlife watching and other recreational opportunities are plentiful. Summit Lake is on the edge of the area. Human- and wind-powered boating should replace motor boating on the waters in this area to preserve its wilderness character. (There is better motor-boating on Crescent and Odell Lakes, two larger lakes nearby.)

Some of the proposed Wilderness has been designated for protection and restoration as a late successional reserve under the Northwest Forest Plan.

Most, but not all, of the proposed Wilderness is within the Oregon Cascades Recreation Area (OCRA). In 1984, Congress established the OCRA at the insistence of then-Senator Mark Hatfield. Hatfield had long sought an alternative designation to Wilderness, which he often believed was too restrictive on agency managers, certain recreational activities and certain resource extraction. He wanted the political benefits of having "saved" an area by affording it some form of congressional designation, but did not wish the area to be managed as Wilderness. While the legislation creating the "recreation" area withdrew the area from further mining claims, according to the statute the OCRA is to be managed to:

- (1) *provide a range of recreation opportunities from primitive to full service developed campgrounds;*
- (2) *provide access for use by the public;*
- (3) **to the extent practicable, maintain the natural and scenic character of the area;** and
- (4) *provide for the use of motorized vehicles. (emphasis added)¹*

The legislation further provides that logging, dams, grazing, power lines and other developments can be permitted in the OCRA by the managing agency. Unfortunately, while the creation of the Oregon Cascades Recreation Area changed the area's color on the map, it did little to change its actual management on the ground.

◀ Sawtooth Mountain is in the Cowhorn Mountain Unit, which is within the proposed Upper Deschutes, North Umpqua and Upper Willamette Wilderness.



Wildfire burned a mosaic in the Warner Creek Unit of the proposed Upper Willamette Wilderness.

Proposed Upper Willamette Wilderness

Lower Elevation and Very Scenic Old-Growth Forests

Located in the backyard of Eugene-Springfield (Oregon's second largest metropolitan area), the Upper Willamette Basin contains some extensive stands of pristine old-growth Douglas-fir forest.

The proposed Upper Willamette Wilderness includes roadless lands encompassing the upper tributaries of the Willamette River. Although early western cartographers drew the Willamette River coming from the Great Salt Lake (yes, Utah), it actually begins at Timpanogas Lake a few miles west from the Cascade Crest. Downstream of Oakridge, it is joined by the North Fork of the Middle Fork of the Willamette River (a.k.a. "North Fork of the Willamette") that flows from Waldo Lake (see the proposed *Three Sisters Wilderness Additions*, pages 144-147). Further downstream, a major tributary, Fall Creek, joins the Middle Fork before its confluence with the Coast Fork of the Willamette River just south of Eugene. There it forms the mainstem of the mighty Willamette River. Yet, because the Army Corps of Engineers has dammed the river in six places, the Upper Willamette River Basin is now a disconnected watershed of pools

and slack water.

Although logging in the Upper Willamette Basin has been extensive, the amount and proximity of the remaining roadless areas and old-growth forest make for a relatively intact terrestrial ecosystem.

The North Fork of the Middle Fork of the Willamette River is a federal Wild and Scenic River and an Oregon Scenic Waterway for 43.2 miles from Waldo Lake to the town of Westfir. The American Fisheries Society has designated the North Fork of the Middle Fork of the Willamette River watershed an aquatic diversity area because of its importance for native fish, including cutthroat trout. A relic bull trout population exists in the Upper Middle Fork Willamette watershed where active restoration efforts are underway.

Forests in the proposed Wilderness are predominantly old-growth Douglas-fir/western hemlock as is common throughout much of the Western Cascades. However, as one travels south through the area, incense cedar, sugar pine and even ponderosa pine — the last being more common in drier forests — join the Douglas-fir. Common understory species here include vine maple, rhododendron and Oregon grape.

Wildlife species include the northern spotted owl, peregrine falcon, osprey, bald eagle, pileated woodpecker and northern goshawk. Small game birds include ruffed and blue grouse, along with mountain quail. Black-tailed deer and Roosevelt elk are common, as are cougar, beaver, coyote and black bear.

Recreational opportunities include hunting, fishing, hiking, backpacking, horseback riding and enjoying naturally regenerated young forests (the rarest age class of forests).

Much of the proposed Wilderness has been designated for protection and restoration as a late successional reserve under the Pacific Northwest Forest Plan. Approximately 73,000 acres are generally off-limits to logging, but the remainder is not. Other threats to the area include road building and off-road vehicles. ♦

Notes

¹ 16 U.S.C. § 460oo(c).

LEVEL IV ECOREGIONS

Western Cascades Lowlands and Valleys (45%), Western Cascades Montane Highlands (45%), Cascade Crest Montane Forest (8%), Cascade Subalpine/Alpine (2%)

VEGETATION TYPES

Douglas-fir/Broadleaf Deciduous (67%), Mountain Hemlock (11%), Silver Fir/Western Hemlock/Noble Fir (8%), Mountain Hemlock/Red Fir (8%), Cutover/Burned (2%), Mountain Hemlock/Parklands (2%), Cleared Grasslands (1%), Open Water (<1%), Subalpine Lodgepole (<1%)

DRAINAGE SUBBASINS

Coast Fork Willamette, Middle Fork Willamette

ELEVATION RANGE

997-7,664 feet

UNITS

Bear Bones Mountain, Bear Mountain, Bedrock Creek, Big Swamp, Brice Creek, Buffalo Peak, Bulldog Rock, Canton Creek, Cat Mountain, Cedar Creek, Chalk Creek, Chucksney Mountain, City Creek, Clover Patch Butte, Cowhorn Mountain, Deception Butte, *Diamond Peak Additions* (Salt Creek, Upper Hills Creek, West Additions), Dome Rock, Fairview Peak, Fall Creek, Groundhog Creek, Hardesty Mountain, Heckletooth Mountain, Huckleberry Mountain, Kitson Ridge, Larison Creek, Larison Rock, McClean Mountain, Monerica Creek, Moss Mountain, Mule Mountain, Noonday Ridge, North Fork- Middle Fork Willamette, Packard Creek, Puddin Rock, Tire Mountain, Too Much Bear Lake, Tumblebug Creek, Warner Creek, Windfall Creek, Wolf Mountain, Youngs Rock

EXISTING WILDERNESS INCORPORATED

portion of Diamond Peak

SIZE

136,468 acres (213 square miles, not including 19,183 acres of currently protected Wilderness)

COUNTIES

Douglas, Klamath, Lane

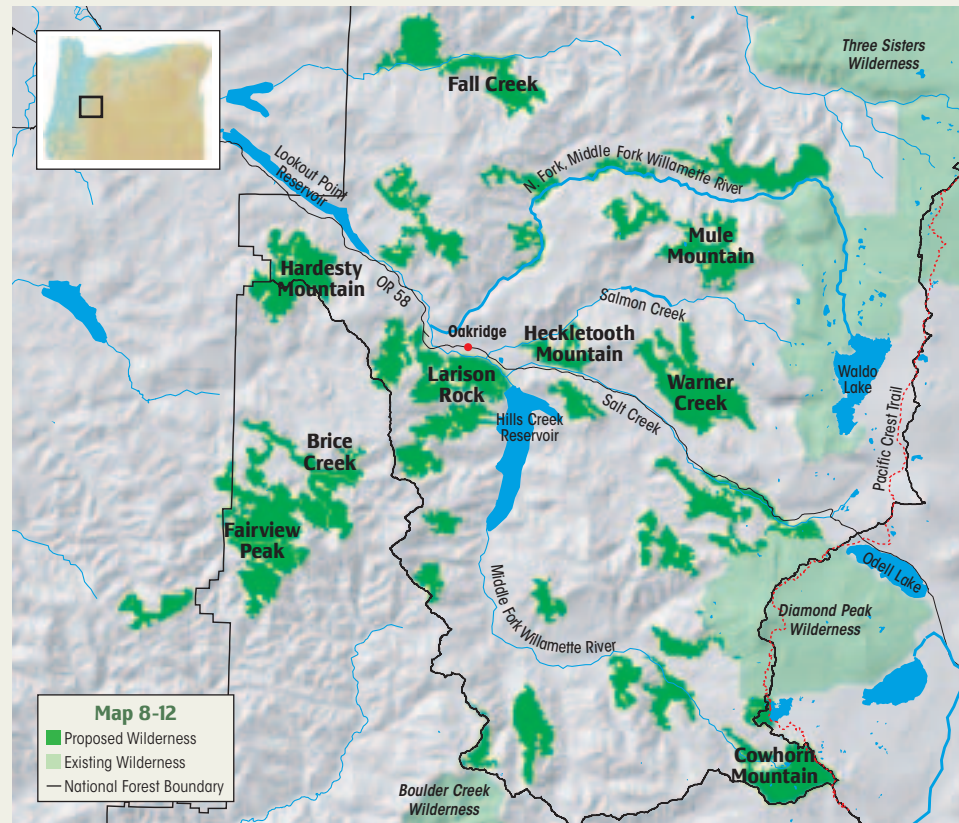
FEDERAL ADMINISTRATIVE UNITS

Umpqua and Willamette National Forests; BLM Eugene and Roseburg Districts

CONGRESSIONAL DISTRICT

4th

Proposed Upper Willamette Wilderness



Some of the units in the proposed Wilderness are highlighted below.

Brice Creek contains a stream with numerous rocky bluffs and waterfalls, and is important to the city of Cottage Grove's water supply. Along a hiking trail in the unit, one can find old-growth Douglas-fir, western hemlock and even some sugar pine, with an understory of vine maple, rhododendron and golden chinquapin. The spring wildflower displays here are outstanding.

Cowhorn Mountain, along the Cascade Crest, is on a triple divide between the Willamette, Deschutes and Umpqua watersheds. Timpanogas Lake is on the edge of the unit and the Pacific Crest Trail passes through the unit.

The **Fairview Peak** units are in the Row (pronounced "row" as in a fight, not "row" as in a boat) River Watershed, a tributary of the Coast Fork Willamette River. On a clear day, one can see the Pacific Ocean

from atop Fairview Peak. A nearby trail served as an Indian trade route from the Upper Willamette Valley to eastern Oregon. The units contain several wet and "moist" meadows; the latter are a type uncommon in the region.

The **Fall Creek** units include some of the lowest elevation old-growth forest on the Willamette National Forest and are linked by the Fall Creek National Recreational Trail.

Hardesty Mountain is featured on page 153.

The **Heckletooth Mountain** and **Warner Creek** units include a trail linking Eugene to the Pacific Crest Trail and contain some very large, old (and now singed) Alaska yellow cedar, outstanding views, high waterfalls and unusual plant communities. The latter unit is the site of the infamous Warner Fire, an arson fire within spotted owl habitat "protected" from logging. (See Warner Creek Fire, page 42.) The area is now healing naturally

and has yet to be logged, but is also yet to be adequately protected.

Larison Rock is not only important spotted owl habitat, but serves as the scenic pristine forest backdrop on the south side of the town of Oakridge.

Blair Meadow in the **Mule Mountain** unit has over 80 species of wildflowers.

FEATURED UNIT

Hardesty Mountain

In an attempt to confuse the public and confound efforts to protect this roadless area, the Forest Service originally named this unit after the second highest point within its boundaries: Hardesty Mountain (4,273'). At the time, the area was better known for the highest peak in the area: Mount June (4,616'). (Folks from Cottage Grove more often refer to it as June Mountain.) One can see the Cascade peaks from Mount Hood to Mount Thielsen from atop either rocky summit, as well as large parts of the Coast Range and Willamette Valley.

Hardesty Mountain is a wild island in a sea of surrounding clearcuts. Only a half-hour drive from Eugene, the 20 miles of trails through ancient forests, wildflower meadows and high ridges in this unit are popular for low elevation backcountry recreation. Most recreation occurs on the Willamette National Forest (Middle Fork Willamette River watershed) side of the unit. The Umpqua National Forest (Coast Fork Willamette River watershed) side supplies drinking water to the city of Cottage Grove. The Forest Service prevents the public from swimming and camping in the municipal watershed to protect water quality, but has refused to end its own roading and logging in the watershed.

The unit is generally steep with a few gentle benches. The lowland old-growth forests below 4,000-foot elevation are comprised of Douglas-fir, incense cedar, Pacific madrone, western hemlock, western redcedar, bigleaf maple, Pacific yew, golden chinquapin and red alder, with occasional rock outcroppings poking through the forest canopy. Understory species include rhododendron, vine maple, salal, Oregon grape and an assortment of wild berries and ferns (sword, deer, licorice, bracken and maiden-hair). Above 4,000-foot elevation, grand, noble and Pacific silver fir are common, with the occasional subalpine fir. Oregon white oak is found along the high divide.

The unit is winter range for black-tailed deer and Roosevelt elk and the cougars that depend upon them. Bald eagles and spotted owls nest on the slopes. Black bear are also present. Resident cut-throat trout are found in most creeks in the unit. Sixteen species of moths have been noted here. The Washington lily (*Lilium washingtonianum*) and calypso orchid or fairy slipper (*Calypso bulbosa*) may be seen amid the dense understory. Hardesty Mountain is also home to the rare Pacific giant salamander.

KURT JENSEN



A hiker in the Hardesty Mountain Unit of the proposed Upper Willamette Wilderness.

PROPOSED WILDERNESS

Upper Willamette

LOCATION

10 miles southeast of Lowell

LEVEL IV ECOREGIONS

Western Cascades Lowlands and Valleys (62%), Western Cascades Montane Highlands (38%)

VEGETATION TYPES

Douglas-Fir/Western Hemlock (100%), Douglas-Fir/Broadleaf Deciduous (<1%)

TERRAIN

Steeply forested slopes and rocky ridges.

DRAINAGE SUBBASINS

Coast Fork Willamette, Middle Fork Willamette

ELEVATION RANGE

1,181-4,266 feet

SIZE

8,077 acres

COUNTY

Lane

FEDERAL

ADMINISTRATIVE UNITS

Umpqua and Willamette National Forests (Cottage Grove and Middle Fork Ranger Districts); BLM Eugene District (McKenzie Resource Area)

USGS 7.5' QUAD MAP

Mount June