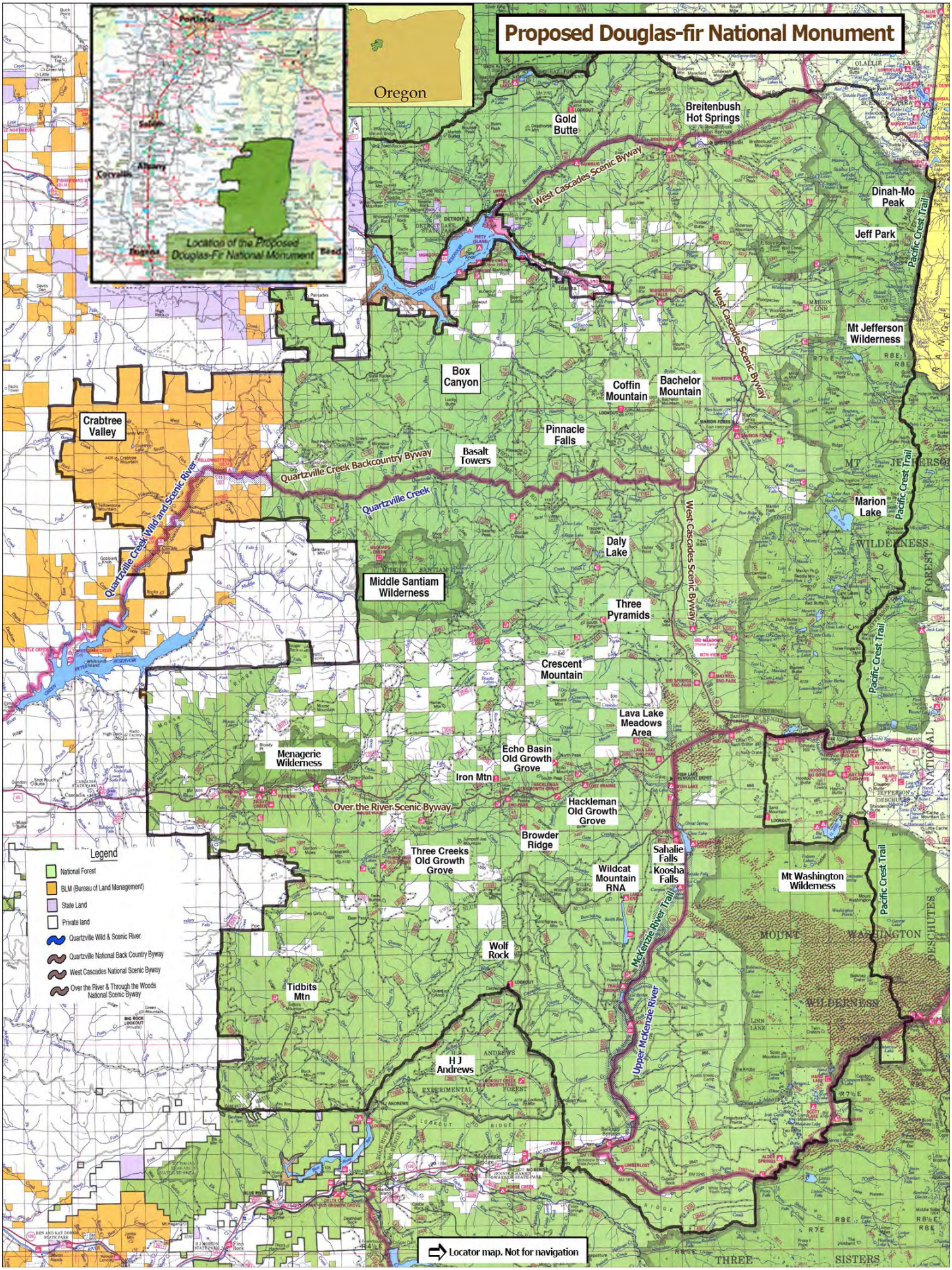
Proposed
Douglas-Fir National Monument

Protect the Best, Restore the Rest

Friends of Douglas-Fir National Monument

www.douglasfirnationalmonument.org


Proposed Douglas-fir National Monument
Oregon
Portland
Salem
Albany
Corvallis
Eugene
Bend
Location of the Proposed Douglas-Fir National Monument
Gold Butte
Breitenbush Hot Springs
West Cascades Scenic Byway
Dinah-Mo Peak
Jeff Park
Pacific Crest Trail
Mt Jefferson Wilderness
Box Canyon
Coffin Mountain
Bachelor Mountain
Crabtree Valley
Pinnacle Falls
Basalt Towers
Quartzville Creek Backcountry Byway
Quartzville Creek
Quartzville Creek Wild and Scenic River
Marion Lake
Daly Lake
Middle Santiam Wilderness
Three Pyramids
Crescent Mountain
Lava Lake Meadows Area
Menagerie Wilderness
Echo Basin Old Growth Grove
Iron Mtn
Over the River Scenic Byway
Hackleman Old Growth Grove
Browder Ridge
Three Creeks Old Growth Grove
Sahalie Falls
Koosha Falls
Wildcat Mountain RNA
Mt Washington Wilderness
McKenzie River Trail
Wolf Rock
Tidbits Mtn
Upper McKenzie River
H J Andrews
Legend
National Forest
BLM (Bureau of Land Management)
State Land
Private land
Quartzville Wild & Scenic River
Quartzville National Back Country Byway
West Cascades National Scenic Byway
Over the River & Through the Woods National Scenic Byway
Locator map. Not for navigation

Proposed Douglas-Fir National Monument

Executive Summary

The proposed Douglas-Fir National Monument would conserve and restore a portion of federal public land in the Cascade Range of Oregon for this and future generations. Most of this land is dominated by Douglas-fir forest, a mixture of old growth, mature forest, natural young stands and plantations of young trees all the same age. These monoculture plantations, the result of past clearcutting, would be subject to ecological thinning that will put them on a track to again become diverse natural forests. This restoration forestry will produce significant commercial timber for two or three decades. The proposed national monument would also be managed to support native fish and wildlife, provide clean water to surrounding communities, protect archeological sites, sequester and store carbon, conserve outstanding scenic values and provide recreation compatible with such conservation.

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Introduction

At a few times in our nation's history, a species of tree was so magnificent that the President of the United States proclaimed a national monument to honor and protect that tree in a significant portion of its range. The coast redwood in northwestern California and southwestern Oregon, the giant sequoia in the Sierra Nevada, the Joshua tree in the Mojave Desert, the tree-like saguaro and organ pipe cacti in the Sonoran Desert, the bald cypress in Florida, all have namesake national monuments or national parks. Each of these tree species is magnificent in its own ways, and so is the Douglas-fir.

The creation of a Douglas-Fir National Monument will protect, honor and conserve one of America's greatest natural treasures—the coast Douglas-fir forest ecosystem of the Western Cascades. The proposed monument in the upper Santiam River watershed of Oregon will preserve this remarkable place for the use and enjoyment by this and future generations. In order to preserve, protect, honor and conserve one of America's greatest natural treasures, the coast Douglas-fir forest ecosystem in a portion of the Western Cascades, it is proposed to create a Douglas-fir National Monument in the upper Santiam River watershed of Oregon for the benefit of this and future generations.

Throughout most of its range, Douglas-fir is found in stands mixed with other species. Coast Douglas-fir north of Oregon's Umpqua River is often naturally found in nearly pure stands. But after more than a century of intensive logging on both private and public lands, which has converted most original Douglas-fir forests to tree plantations, the Douglas-fir landscape is highly fragmented and relatively few parts remain undisturbed. The proposed national monument contains some of the finest remaining stands of ancient temperate conifer forest in the world, as well as substantial areas of older mature forest that, in time, will acquire the character of old-growth forest. The previously logged stands within the proposed national monument will be allowed to recover their full natural community of plants and animals.

The national monument can become a significant natural, cultural and economic resource for the region and the world, and it will appropriately honor the State of Oregon's official tree.

In an era of climate change, preserving old-growth forests and allowing cutover forests to regrow will make a major contribution to carbon sequestration and help to slow global warming.

In addition to conserving and restoring vast stands of coast Douglas-fir and other coniferous forests, the proposed national monument will also encompass and protect numerous objects of historic, geologic, hydrologic, and/or ecologic interest, including wildflower-strewn meadows, small lakes that dot the landscape, and striking volcanic features.

Magnificent views will be preserved, and recreation compatible with the conservation of the values for which the national monument is established will be protected and encouraged. Pleasure driving, hiking, nature study, birding, hunting, fishing, biking, horseback riding, camping and related activities are some of the ways the national monument could be enjoyed and appreciated.

Old-growth Douglas-fir forest just outside the Middle Santiam Wilderness

Background

Until the twentieth century, most of Oregon west of the Cascade crest was covered by coniferous forest, comprising about 60% coast Douglas-fir, 17% hemlocks (Tsuga spp.; western and mountain hemlock), 15 % true firs (Abies spp.; white fir, noble fir, subalpine fir, Pacific silver fir, grand fir and California red fir) and small percentages of other trees. Douglas-fir was the foundation species of this magnificent forest, which extended from 19° N latitude, in the mountains of central Mexico, nearly 2,800 miles to 55°N in central British Columbia. There are two recognized varieties: coast Douglas-fir (Pseudotsuga menziesii variety menziesii)) and Rocky Mountain Douglas-fir (P. menziesii var. glauca).

Most Douglas-fir forests have been clearcut for lumber and plywood for use in the construction of millions of dwellings. Today, pristine stands of mature and old-growth Douglas-fir are but a small fraction of their former extent.

Coast Douglas-firs can rival redwood trees in size and age, growing to over ten feet in diameter; the Scottish pioneer botanist David Douglas, for whom the tree is named, noted trees in the lower valleys of western Washington that averaged 17 feet thick. They can reach heights of several hundred feet, but the tallest were logged first, and no one knows for sure how tall these were. The trunk of the Nooksak Giant, cut in 1897, was said to be 465 feet long. Douglas-firs can reach ages of a thousand years or more. In California there are both national and state parks that pay homage to the redwoods, yet nothing comparable exists for the Douglas-fir, even though it is a more important species in its range and significance, and old-growth forests of Douglas-fir are as magnificent as those of coast redwoods—often with greater ecological diversity.

The proposed national monument will protect a significant relic of the globally unique Pacific Northwest temperate rain forest for this and future generations to enjoy.

Conservation biologists tell us that in order to prevent catastrophic extinctions we must preserve approximately half of the earth in an essentially natural condition.[1] Yet the once-great conifer forests of Oregon have been mostly logged and replanted in even-aged stands that lack most of the ecological characteristics of a natural forest. The establishment of the Douglas-Fir National Monument won't completely solve this problem, but it would be a start and an inspiration to others to do the same elsewhere.

We are now at a historical crossroads in our relationship to the natural world that supports and nourishes us. Ecosystems of every sort are increasingly disrupted by fragmentation and resource extraction. Species of plants and animals are under unprecedented pressure as habitat shrinks to isolated islands in a sea of human activity.

Climate change is no longer a distant threat but is upon us. The conservation and restoration of the magnificent Douglas-fir forest will significantly help ameliorate global warming. Because of their massive amounts of biomass, unlogged Douglas-fir forests store huge amounts of carbon that, if logged, would be released into the atmosphere and contribute to climate change. Even though young forests are fast-growing, they do not approach the carbon storage of old-growth for at least 200 years (see p. 15 for references.)

A clearcut on private land north of the Menagerie Wilderness. In the proposed monument, such blocks of land will remain under private ownership and management unless they are acquired by the Forest Service from willing sellers.

The conversion of diverse Douglas-fir ancient forest to monocultural plantations is almost complete on private and state timberlands. Clearcutting is followed by replanting with just Douglas-fir seedlings, herbicide spraying to kill competing plants and clearcutting again in 35-50 years. The resulting "forest" is impoverished for fish and wildlife, destructive to soils and streams and devoid of scenic value—and in the long run it is not sustainable.

The federal forestlands in the proposed national monument are currently managed by the U.S. Forest Service under the 1995 Northwest Forest Plan (NWFP). While the NWFP is the best large landscape conservation plan ever implemented by any government in the world, it is not ecologically sufficient to conserve and restore ancient coast Douglas-fir forests. More must be done, such as the establishment of the permanent protection of a national monument.

Nearly all remaining old-growth Douglas-fir forests are on federal public forestlands. Because no more than 15% of old-growth public forestlands remain, the Douglas-fir national monument is proposed to preserve some of the best remaining old-growth and allow eventual restoration of significant stands of future old-growth forests.

Log trucks still haul logs out of the forest, including in the area of the proposed monument.

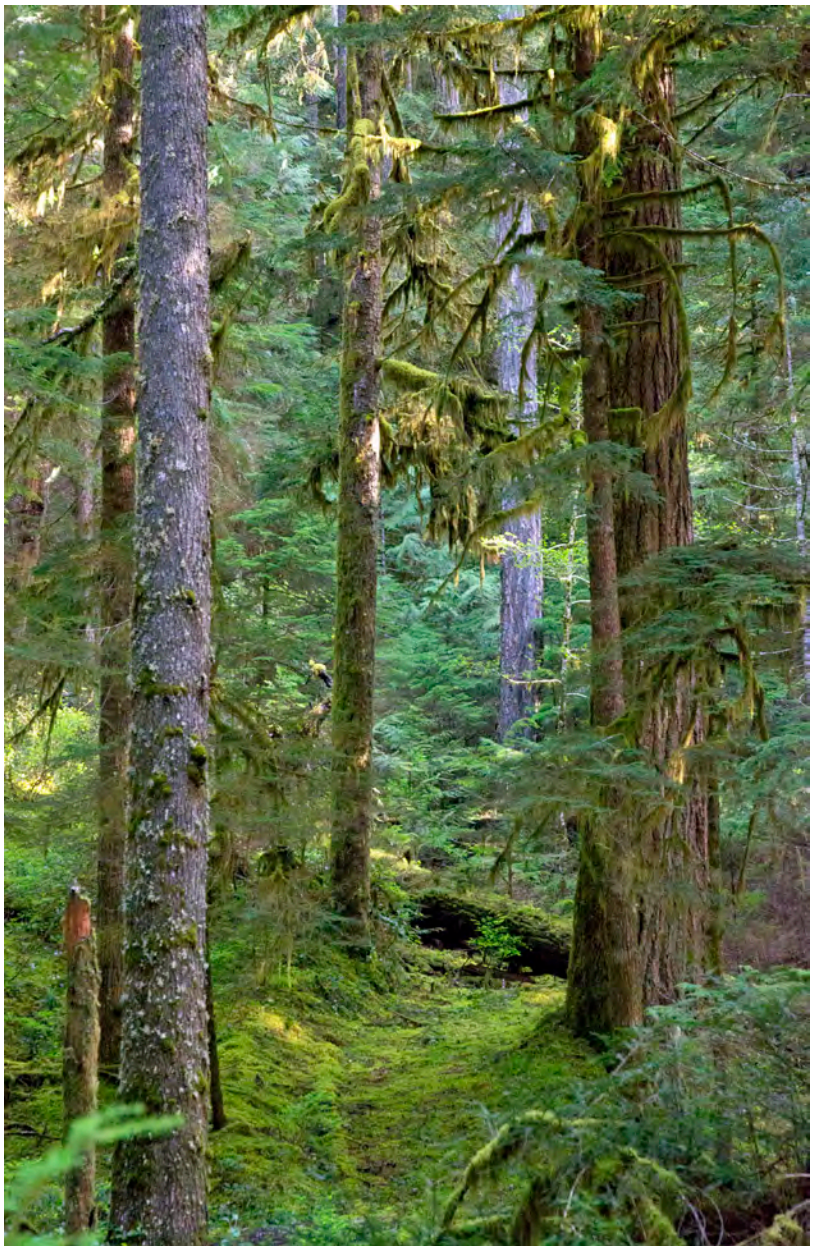
Almost all of the federal forest has been significantly fragmented by past logging. Federal public forestlands also have many forest stands that were logged long ago and now are beginning to approach maturity. True "ancient" forests, with trees many hundreds of years old and of great structural complexity, are scarce everywhere, and the best stands are generally only accessible by driving many miles on logging roads and then hiking.

Federal public lands are mostly at higher elevations than private holdings, and they contain a mixture of stands of different ages from recent clearcuts to very old forest in a patchwork across the landscape. The taller forest in the background is a still-standing older forest on federal public lands. The middle ground is a Douglas-fir plantation.

Scientists have found that the root system of one Douglas-fir tree will graft to the roots of adjoining trees, and collectively they share hormones and starches. This is only one of many ways the forest is much more than a collection of individual trees.

The needle surface area of two average old-growth Douglas-fir trees is equal to the playing area of an American football field, making each tree an amazing collector of moisture and CO2 from the atmosphere.

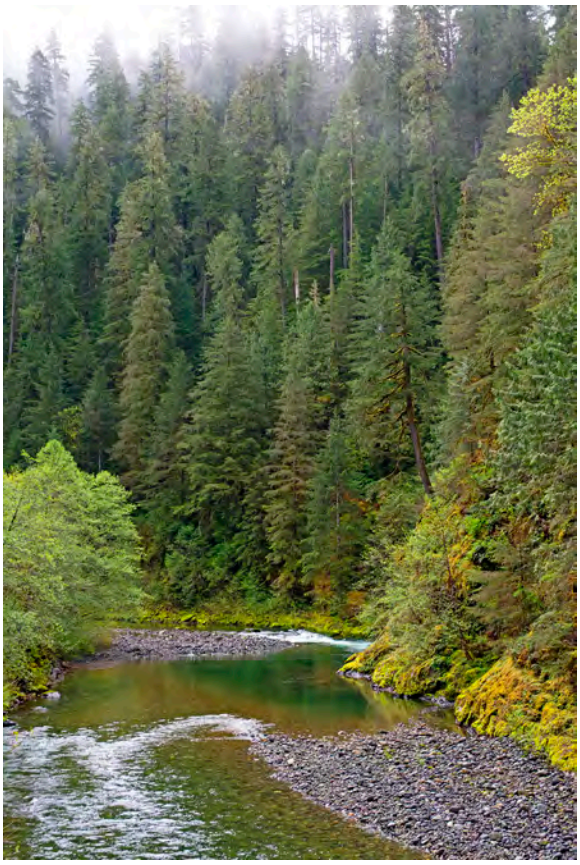
If all remaining blocks of old-growth coast Douglas-fir are preserved, if the natural young and mature stands are allowed to grow older and if the young plantations are managed for ecological diversity instead of commercial log production, then the Western Cascades within the proposed national monument has a chance to recover much of the wild quality it had before the era of massive clearcutting. The proposed Douglas-Fir National Monument would preserve the best of what is left of the original forest, provide for long-term ecological and hydrological restoration and at the same time give honor and recognition to the tree at the heart of this unique ecosystem.



Old-growth coast Douglas-fir forest above Crabtree Lake.

Location and Extent of the Proposed Douglas-Fir National Monument

The proposed monument would mostly consist of federal public land within and near the Willamette National Forest. The northern boundary would abut the Opal Creek Scenic Recreation Area, Opal Creek Wilderness and Bull of the Woods Wilderness. The southern boundary takes in the Calapooya River, upper Blue River and upper McKenzie River watersheds, the old McKenzie Highway and the southern edge of the Mt. Washington wilderness. The eastern boundary would be the Cascade Crest , except where the boundary goes around the Santiam Off-Road Area. The western boundary would generally follow the existing boundary of Willamette National Forest but would include the contiguous area of BLM holdings centered on the Quartzville Creek Wild and Scenic River and in Crabtree Valley, home to the oldest known Douglas-firs in Oregon. It would also include a 191-acre BLM parcel along the Middle Santiam River above Green Peter Reservoir, an exceptional remnant of magnificent, low-elevation, old-growth Douglas-fir forest.



Included in the proposed national monument would be all of the Middle Santiam and Menagerie Wilderness areas, Quartzville Creek Wild and Scenic River and the western portion of the Mount Jefferson and Mt. Washington Wildernesses.

When the Middle Santiam Wilderness was established in 1984, it was to set aside an example of old-growth Douglas-fir forest. But the example was just a sample and the de facto Middle Santiam wildland is over twice the size of the Middle Santiam Wilderness.

The portion of Quartzville Creek administered by the Bureau of Land Management (from the Willamette National Forest downstream to near Green Peter Reservoir) is a federal Wild and Scenic River. The upper portion of Quartzville Creek should be as well.

The proposed national monument would also include important roadless areas, including:

• Bachelor Mountain: Featuring several miles of ridgeline and canyon trails, it is a haven for songbirds and wildflowers 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.

• Hoover Ridge: A scenic backdrop for anglers and boaters on Detroit Reservoir

• Crabtree Valley: 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.

Crabtree Lake after a late spring snowfall.

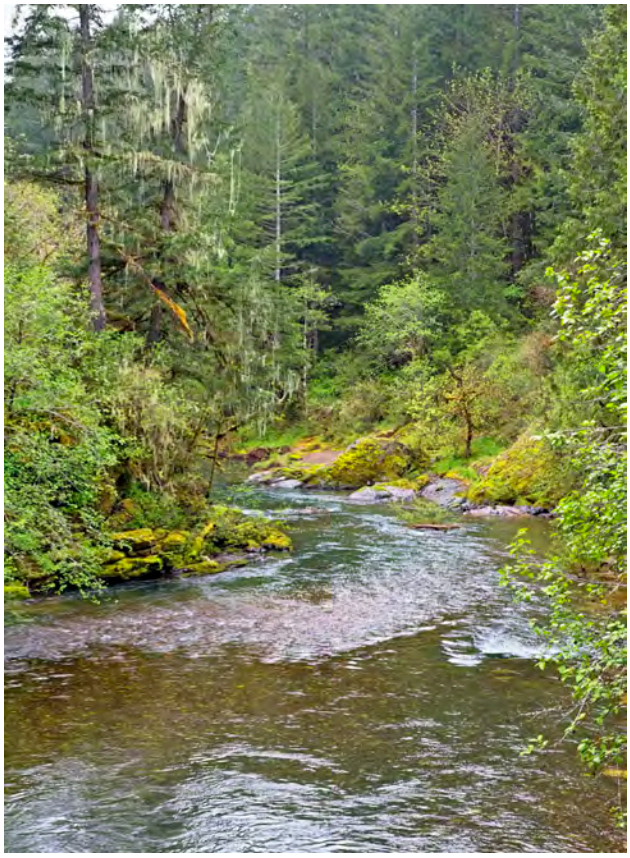
• Gordon Meadows contains lakes and meadows in various stages of succession. Towering over the lakes and meadows is Soapgrass Ridge. Here one will find the Millennium Grove, a unique stand of 700 to 900 year-old — and older — old-growth Douglas-fir interspersed with other younger, 200 to 300 year-old trees.

Gordon Meadows
Photo courtesy of Tanya Harvey.

• Iron Mountain, at the headwaters of the North, Middle and South Santiam rivers, is home to over 300 species of flowering plants belonging to 18 distinct plant communities. Over 60 species found here are unusual or rare for the western Cascade Mountains, including *Ivesia gordonii* (right.)

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

Ivesia gordonii, *called alpine ivesia or Gordon's mousetail, on top of Cone Peak looking southeast to the Three Sisters. Photo courtesy of Tanya Harvey*



Moose Creek.

• Moose Creek: The river 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.

• Three Pyramids: This area 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.

• Existing Wilderness Areas: roadless lands adjacent to these areas including lands located downslope from the current Mount Jefferson Wilderness boundary.

Why So Big?

At over 700,000 acres the proposed Douglas-Fir National Monument is on scale with many other major national monuments around the country. For instance, Cypress National Reserve in Florida protects 720,566 acres and Joshua Tree National Park in California protects 790,636 acres.

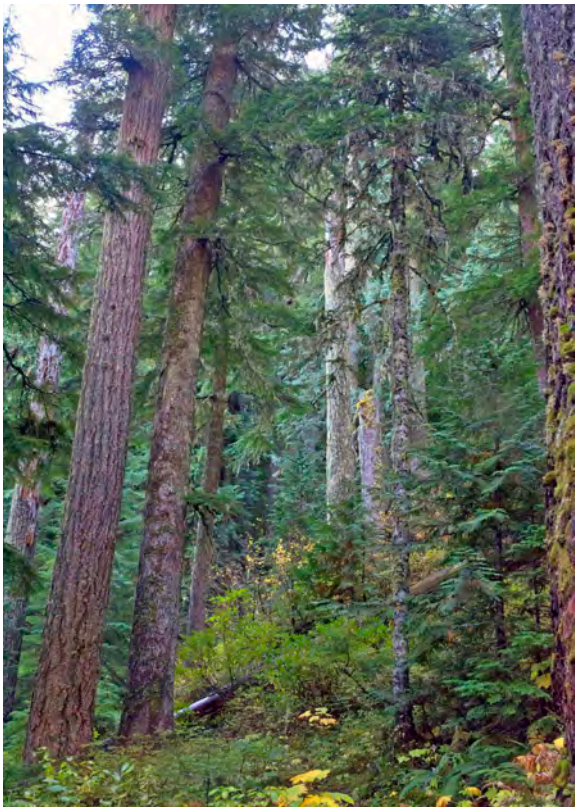
A national monument to preserve and honor the Douglas-fir needs to include a lot of Douglas-fir forest of all ages and conditions across a large landscape.

Douglas-fir forest south of the Opal Creek Wilderness.

The goal of creating a new national monument to the Douglas-fir forest is not merely to preserve the scattered fragments of older forest that remain today, but to restore ecological and hydrological integrity to a region that has undergone profound alteration since large-scale industrial logging began after World War II. Thanks to the efforts of many dedicated people, some excellent groves of ancient Douglas-fir forest are permanently protected in places like the Middle Santiam and Mount Jefferson Wildernesses. However, most of the older Douglas-fir forest stands in the area only have some level of administrative protection, which is vulnerable to change as political administrations change.

The proposed national monument has many scattered stands of magnificent old-growth Douglas-fir forest. Some of the oldest stands are in Crabtree Valley and the Gordon Meadows roadless area (Millennium Grove) and on the edges of the Middle Santiam Wilderness. Large stands of old trees are found in many places in the proposed national monument. Outside the wilderness areas, there are only administrative protections for these areas.

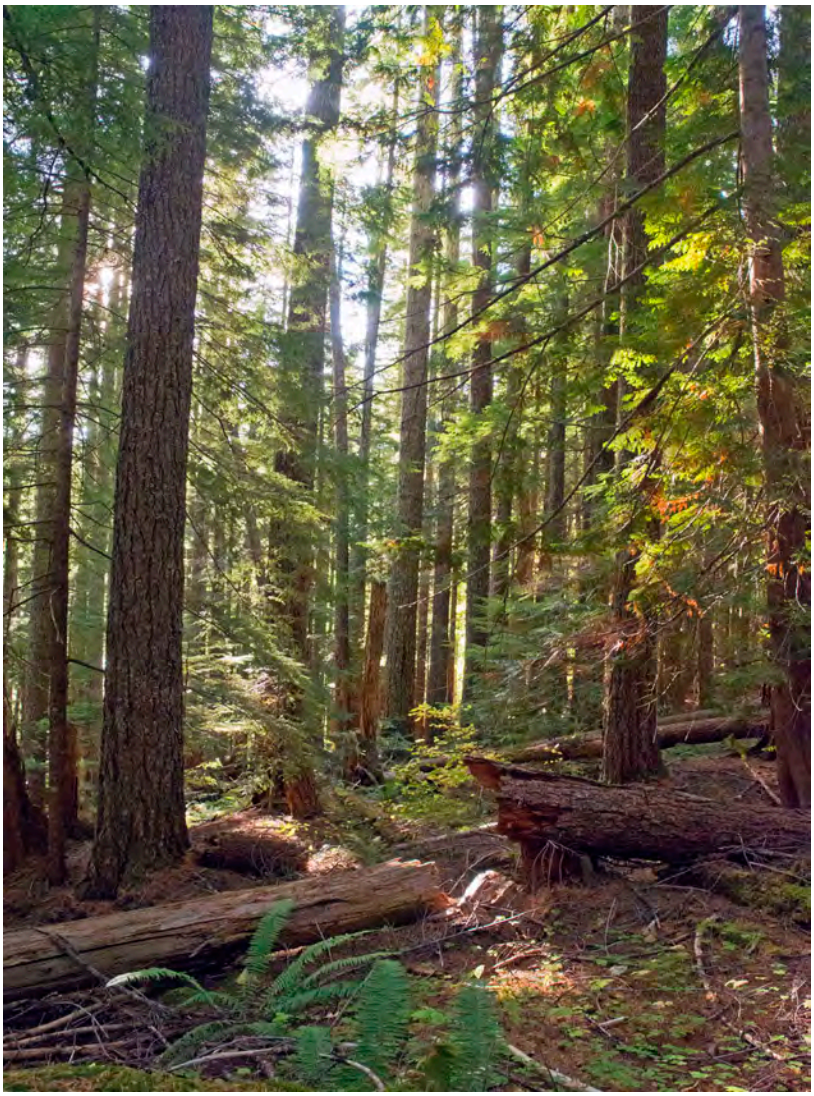
As the most southern and northern limits of the proposed monument would be separated by over 40 miles, and its eastern and western limits separated by a range of nearly 10,000 feet elevation (from the peak of Mount Jefferson to the South Santiam River) the monument would include a diversity of Douglas-fir and other forest types with differing mixes of native tree and understory vegetation. It would also include the entire upper watersheds of the North, Middle and South Santiam rivers.



Old forest in the upper reaches of McQuade Creek, just outside the northern edge of the Middle Santiam Wilderness. In addition to magnificent Douglas-fir trees there are stands of very old western hemlock and western redcedar.

Besides isolated "cathedral groves" of ancient forest, where one can walk among majestic, ancient trees that are simply amazing and awe-inspiring, much of the remaining old-growth forest consists of "younger" (though often well over a century or two in age) stands with very old trees scattered within them. This pattern reflects the history of large natural cataclysmic events—predominantly fires, but also wind storms, which left a naturally patchy mosaic on the landscape.

In areas such as the Millennium Grove near Gordon Meadows, for example, there are large-diameter trees over 800 years old. These remnants of an ancient fire stand tall among smaller trees that survived a different fire about 200 years ago (still old growth in anybody's book). Older forests, with a mixture of trees of different ages, abundant snags and downed logs are the most favorable for wildlife and provide the best conditions for healthy streams. These areas need to be large and connected, and we live in a historical moment that offers a unique opportunity to restore this kind of intact landscape in the heart of the Douglas-fir country.



Old-growth forest near Gordon Lakes, where most trees are about 200 years old, but some are several times older.

The Ecoregions of the Proposed Douglas-Fir National Monument[2]

The proposed national monument is entirely within the Cascades "Level III" Ecoregion, as defined by the Environmental Protection Agency. 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 has been intensively managed for logging. Subalpine meadows occur at high elevations.

Further refining the ecoregion, EPA scientists divide Oregon's Cascade Range Level III Ecoregion into six additional Level IV ecoregions, four of which are found here:

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

• The **Western Cascades Montane Highlands** ecoregion is 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 over-topped 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.

A Collision of Conifers

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

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

Surprisingly, sugar pine is not found here, although it is found elsewhere in the proposed national monument. This may be because this area is located near the northern edge of the sugar pine's range.

Current Kinds of Logging and Quantity of Logs Would Continue for Generations

Clearcut logging of old-growth forests on federal public lands took off after the end of World War II and came abruptly to an end in 1995 at the commencement of the Northwest Forest Plan (NWFP). Since the NWFP, logging operations transitioned to trees established in plantations after clearcutting of old-growth forests.

The establishment of a Douglas-Fir National Monument will not lead to the immediate end of logging on public lands in the area. Rather, for at least another 30 to 60 years, the careful ecologically sound logging of many of the previously managed forests will continue.

There are vast stands of "successful" Douglas-fir plantations in the proposed national monument. The trees in these stands are generally of all the same age, same spacing and same species. They are closer to biological deserts than real forests. Judicious ecological restoration thinning of such stands can accelerate the onset of late-successional (older forest) characteristics, putting these stands on a fast track to again become old-growth forests. Thinning a stand can allow the remaining Douglas-fir trees to get bigger faster (bigness is a characteristic of an ecologically complex old forest). Where bigleaf maple, alder and other native conifer species have nonetheless established themselves in the plantation, thinning can favor the growth of these stalwart survivors, increasing the diversity of the stands. In addition, small openings can be created to the benefit of deer and elk.

A thinned stand south of House Rock Campground. It may look bad now, but the forest floor will heal and the red paint will fade.

There are lots of plantations that could improve from ecological restoration thinning. The Forest Service estimates that plantation thinning on the Willamette National Forest can continue to at least 2050 (assuming only one-half the plantations are thinned at 60 years of age).[3] However, their analysis assumes that money to prepare thinning projects is not a limiting factor. In fact, funding has been and will likely continue to be limited by Congress. At current funding levels, ecological restoration thinning projects on previously managed stands could easily continue beyond that until about 2075.

Within the proposed national monument boundary are some blocks of private timberland—legacies of 19th Century railroad land grants. National monument designation would not affect their private land ownership or management. If any private lands are to come into federal ownership due to sale by willing sellers, any such lands will become part of the national monument. The communities of Detroit and Idanha (as well as Detroit Reservoir) will be outside the monument boundary. The total area included in the proposed Douglas-Fir National Monument will be slightly larger than 700,000 acres of which about 85 percent are part of the Willamette National Forest administered by the U.S. Forest Service with the remaining area administered by the Bureau of Land Management (BLM.) Only federal public lands will be managed as the Douglas-Fir National Monument. Within its exterior boundary are 1,270 acres that are part of Santiam State Forest and about 50,000 acres of privately owned land.

Benefits of Douglas-Fir National Monument

1. Landscape Conservation and Restoration of the Douglas-fir Ecosystem

The proposed national monument will provide a tremendous opportunity to conserve and restore ecosystem integrity and a full complement of biological diversity to a significant part of the range of the Douglas-fir. The western Cascades are home to 322 regularly occurring species of vertebrates, including 187 birds, 74 mammals, 18 amphibians and 12 reptiles. There are also over 7,000 species of arthropods (for example, insects and spiders), and thousands of different species of plants, fungi and lichens. These species do not live in isolation, but in complex networks of interaction. Most of their interrelationships are probably still unknown to science and are important to maintaining the ecosystem. For example, recent studies have shown that the canopy layer of the Douglas-fir forest is home to some 6,000 species of arthropods, making it a reservoir of species biodiversity comparable to that found in the tropics.

Calypso bulbosa *orchid.*

Usnea *species lichens, including Methuselah's beard* (Usnea longissima)

Mosses and ferns cover an old stump.

Especially important to the health of the forest, but largely invisible, are over 2,000 species of mycorrhizal fungi that nourish the roots of large trees and provide food for small mammals such as the northern flying squirrel (right), one of the main prey species of the northern spotted owl. These fungi are largely destroyed by the kind of forestry that has prevailed for the last century, but will recover in time if left alone. Larger ecosystems have more resilience than small ones and can recover better from natural disruptions such as wildfires. A national monument will provide a significant buffer against disturbance, a local environmental insurance policy in a time of global climate change.

Northern flying squirrel (Glaucomys sabrinus).

2. More and Better Fish and Wildlife Habitat

Conditions for wildlife will improve enormously after the establishment of the national monument. Many animals need older forest to thrive, not only northern spotted owls but also pileated woodpeckers, northern goshawks, many amphibians, and mammals such as the wolverine, fisher and marten. An exciting mid-term possibility is that wolves may return to this area and—in the longer term—grizzly bears. Recent research has demonstrated that ecosystems lacking their traditional top predators are out of balance, leading to overpopulations of ungulates such as deer and elk, and impoverished vegetation. Animals that prefer more open forest stages will benefit from the restoration of natural young forests, a landscape consisting of diverse habitats rather than tree farms.

*Gray wolf (*Canis lupus*) in winter*
Photo ©Kenneth Canning/ IStock/Getty Images

Of particular importance will be the protection and enhancement of streams for native fish such as bull and steelhead trout. By protecting streams and entire watersheds from the effects of logging—and from the erosion caused by roads—habitat for fish will be enhanced. Restoration of salmon habitat has been underway for some time in Moose Creek, a stream within the proposed Monument, and the restoration of healthy riparian habitats will be one of the major goals of the area's management.

The proposed national monument will also improve connectivity between areas of prime wildlife habitat, reducing the fragmentation that can trap animals in shrinking islands of their preferred range. Many animals need to travel over large areas to feed or find mates, or, like the spotted owl, they may use one type of habitat for nesting and another for foraging. It is crucial that the national monument be large enough to allow for the free and necessary movement of the larger mammals.

The ecosystem would benefit from rewilding, that is, the restoration of all of its natural components including large predators. The proposed national monument has the potential to become a key component of what has been called the Pacific Wildway, a mega-linkage for wildlife that could potentially extend from Baja California to Alaska.

Yet another benefit of the proposed national monument for wildlife is as a refuge in a time of global warming. Climate change is already causing stress to many animal populations and older forest with its greater shade, abundant moisture, complexity of vegetation and variety of structural features offers the best chance for long term survival. North-facing slopes of mature forest often provide the most protective habitat for animals in need of shelter from a warming climate.

Northern spotted owl (Strix occidentalis) *in an old-growth forest. Photo courtesy of Greg Vaughn*

3. Watershed Conservation and Restoration for Nature and People

Ancient forests provide the best water quality and quantity on the planet. All of the towns and cities downstream from the proposed national monument will see an enhancement of their water quality, including the communities of Salem, Eugene, Lebanon, Mill City, Stayton and Sweet Home. Costs for filtration will drop as the quantity of sediment in the water decreases, and this enhanced water quality will be provided at no cost to the ratepayer.

South Fork of the Breitenbush River, flowing through an old-growth forest.

Helping the Climate: Carbon Storage

Mature forests provide one of the most effective mechanisms of carbon storage in existence, and mature moist forests on public lands in Oregon and Washington store the equivalent of nearly 130 times the states' annual greenhouse gases. Forests contribute to the atmosphere in two ways: they actively remove carbon through photosynthesis as they simultaneously release oxygen, and they store enormous amounts of carbon in their biomass. Logging releases large amounts of this carbon to the atmosphere and even replanted areas are net emitters of carbon for about their first 15 years.

Simulation studies have shown that conversion of old-growth forests to young, fast-growing forests does not decrease atmospheric carbon, even when the sequestration of carbon in wooden buildings is taken in to account. Old forests store more carbon, and young forests do not approach old-growth storage capacity for at least 200 years.[4]

Globally, deforestation contributes more to climate change than the entire transportation industry. After the enactment of the Northwest Forest Plan, and with the subsequent reduction of logging on federal lands, northwestern forests changed from a source of carbon to a carbon sink. A Douglas-Fir National Monument that promotes the growth of mature forests and preserves the ancient ones will contribute significantly to mitigating global warming.[5]

5. Opportunities for Educational and Scientific Study

The proposed national monument can be a site for advanced scientific study, since science still has much to discover about the dynamics of natural forests and about many of the organisms that live there. In addition to the importance of mycorrhizal fungi, examples of scientific findings from the last few decades of research include:

- The amazing diversity of life in the canopy of old forests, with trees of many other species sprouting from moss-covered limbs high in the air;
- The isolation of paclitaxel (now synthesized), the active ingredient in the cancer-fighting drug Taxol®, from the bark of the Pacific yew (*Taxus brevifolia*), once considered a weed tree;
- Research that suggests millipedes play key roles in the maintenance of forest soils, showing that some of the most seemingly humble organisms can turn out to be the most important; and
- The discovery that the lichen *Lobaria oregana*, called lung lichen, or Oregon lettuce, is a primary source of fixed atmospheric nitrogen in old forests. It is an organism that supplies free fertilizer to the ecosystem, but it cannot grow in tree plantations with short rotation cycles.

The lichen, Lobaria oregana *on a conifer limb.*

6. Outdoor Recreation

Establishment of the national monument will provide increased recreational benefits, first and foremost by creating an icon of the Douglas-fir forest, giving it official recognition as a place of value, a unique treasure of the Pacific Northwest. As the younger portions of the area grow back into mature forest, and the now-mature forest approaches the conditions of old-growth, the attractiveness of the Monument will steadily increase, drawing more and more visitors to the region.

Forest trail near Breitenbush

The area in the proposed monument currently has 16 campgrounds and nearly 55 trailheads serving about 500 miles of trails. As heavy visitor use of Opal Creek Scenic Recreation Area demonstrates, large numbers of people, from families with young children to the aged, want to explore trails in old forests, especially trails that follow streams, or ridgelines with commanding views. Cross-country skiers enjoy the Maxwell Butte area and road bikers use the area, especially the paved 40-mile Quartzville Backcountry Byway. Proper management of the Monument could increase the number of places this would be possible while simultaneously enhancing the area's wild character overall. The national monument will serve the recreational needs of Oregonians and attract visitors from elsewhere in the nation and from around the globe.

7. Spiritual Renewal

The forest can also be a locus for educational and spiritual activities, with much to teach old and young alike. People will learn about plants, animals, stream life and ecosystems by visiting the Monument, and it will inspire contemplation of our place in nature for people of all ages and beliefs. It will be a setting in which we can gain a proper sense of context, a sense of humility, and the knowledge that we are but one part of a much larger and vastly complex world. It will be a place to experience actual, rather than virtual, reality.

Economic Impacts of the Monument

1. Tourism and Recreation

Outdoor recreation in Oregon is thriving; it is growing, and it can be sustainable. Statewide, outdoor recreation generates 141,000 direct jobs, $40 billion in wages and salaries, $128 billion in consumer spending and $955 million in state and local tax revenues.[6] The creation of the Douglas-Fir National Monument will attract visitors to the area from everywhere on the globe, from Asian and European tourists to hikers from the Willamette Valley, around the state and Northwest; it will have a significant positive impact on the economic health of the region.

Panorama Point
Photo curtesy of David Tvedt

2. Local Businesses

Outdoor recreation industry jobs in Oregon are on the increase. In addition, Oregon employers have a competitive advantage over other parts of the country in that they offer jobs to workers that allow them to enjoy the great Oregon outdoors during their time off.

3. Water Resources

Over time, local communities downstream will see a decrease in their costs for filtration and water treatment due to the enhancement of water quality that will result from the Monument's establishment.

A stream in an older part of the forest, south of House Rock Campground

4. Carbon Storage and Sequestration

Climate change is costly to society in ways that influence every aspect of life, such as rising sea levels, more severe storms, disruption to agriculture, impacts on water supplies, increased cooling costs and the spread of invasive species and pathogens. By conserving older forests and allowing the continued growth of younger ones, the Monument will help mitigate these costs. Additionally, as carbon pollution is properly priced in the market, the stored carbon in proposed Douglas-Fir National Monument can be economically recognized.

5. Timber and Other Extractive industries

Under the Northwest Forest Plan as implemented, logging on the federal lands within the proposed national monument has generally been limited to ecological restoration thinning of previously logged stands. This would generally continue for the foreseeable future.

Since 1995, the number of wood products mills and jobs in Oregon have halved, while the milling capacity of the remaining mills has increased by one-quarter. The timber industry's appetite for logs increases while it provides fewer jobs. Most logs in the state come from non-federal lands. More logs from private lands are exported to Shanghai and Tokyo than come from federal public lands in Oregon and Washington.

Jobs in Oregon's wood products industry will continue to decline both as mill automation continues to increase. In 2014, Oregon exported $1 billion of wood products, while exporting $3 billion of agricultural and food products, $5 billion of heavy manufacturing goods and $9 billion of consumer and electronic goods and services. Our remaining older forests are more valuable for the watershed, recreation and ecosystem goods and services they provide, rather than as mere sawlogs.[7]

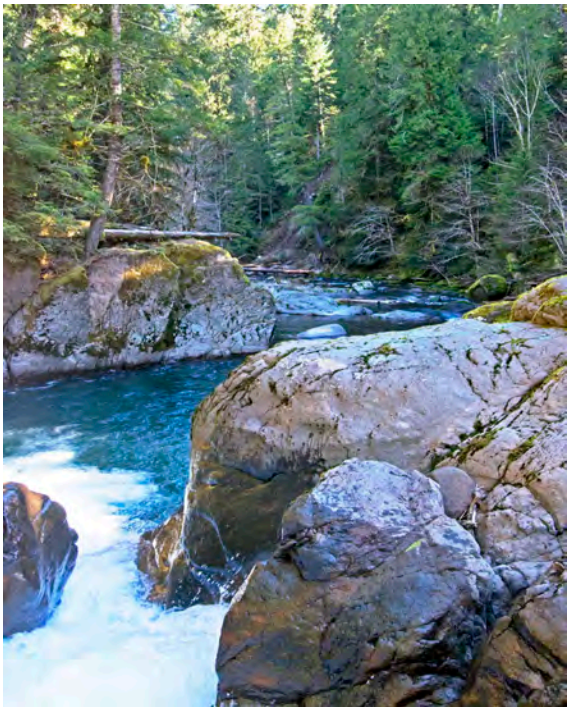
Permanent Protection as a Monument vs. Vulnerable Administrative Protection

Portions of the proposed national monument are already designated by Congress as Wilderness (Mount Jefferson, Mt. Washington, Middle Santiam and Menagerie areas) or as a Wild and Scenic River (Quartzville Creek and McKenzie River), both designations that can provide enduring conservation for the benefit of this and future generations.

Most of the proposed national monument is managed under the Northwest Forest Plan (NWFP) of 1995, which established conservation areas called Late Successional (older forest) Reserves and Riparian (streamside) Reserves. It also established "Matrix" land for logging. There is a lot of Matrix in the proposed monument that contains mature and old-growth forest and that is generally open to logging. The NWFP is subject to being weakened by a future administration. Including these lands in the national monument will add a degree of protection that would be shielded from evolving policies within the federal land management agencies.

Not Just a National Monument

1. Wild and Scenic Rivers



Within the proposed Douglas-Fir National Monument are numerous creeks, rivers and small lakes that qualify for inclusion in the National Wild and Scenic Rivers System. Wild and Scenic River status confers not only additional recognition as to the outstandingly remarkable values of these water bodies, but also additional protection against dams and other water diversions. Presently, the only Wild and Scenic River in the proposed monument is 12 miles of lower Quartzville Creek and the upper McKenzie.. Potential Wild and Scenic Rivers include the rest of Quartzville Creek with several tributaries, Breitenbush River and its forks, the North, Middle and South Santiam rivers and several of their tributaries, plus Crabtree Creek (including Crabtree Lake).). These candidates are all on the River Democracy Act of 2021, which may not pass this session. Protection in a Monument would preserve the beauty of these rivers while Congress considers its options.

The Middle Santiam River above the Wilderness area.

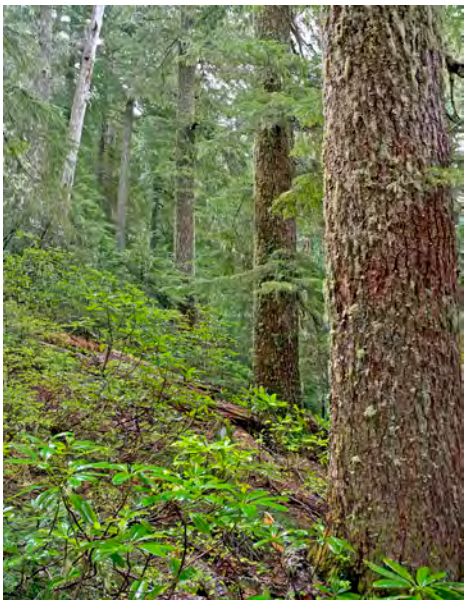
2. Wilderness

Within the proposed national monument are numerous roadless areas that qualify for inclusion in the National Wilderness Preservation System. Currently, the only designated Wildernesses in that area are the Middle Santiam (7,500 acres), Menagerie (4,800 acres) and a portion of the Mount Jefferson (85,000 acres) areas. Potential Wilderness areas include, but are not limited to:

- Gordon Meadows
- Moose Creek
- Jumpoff Joe
- Menagerie Additions
- Iron Mountain
- Three Pyramids
- Middle Santiam Additions
- Mount Jefferson Additions
- Bachelor Mountain
- Mount Bruno
- Hoover Ridge
- Hall Ridge
- Scorpion Mountain
- Box Canyon
- Crabtree Valley

3. Byways

Much of the Quartzville Road Back Country Byway (USFS 11), Over the River and Through the Woods Scenic Byway (US 20), West Cascades National Scenic Byway (OR 22 and Breitenbush River Road) as well as the Mt. Hood portion of the Cascades Birding Trail, traverse the proposed Douglas-Fir National Monument. A byway designation only confers recognition of scenic and recreation resources along the route. A national monument designation will confer protection of such resources.



Old-growth forest in Crabtree Valley.

Management Guidelines for the Monument

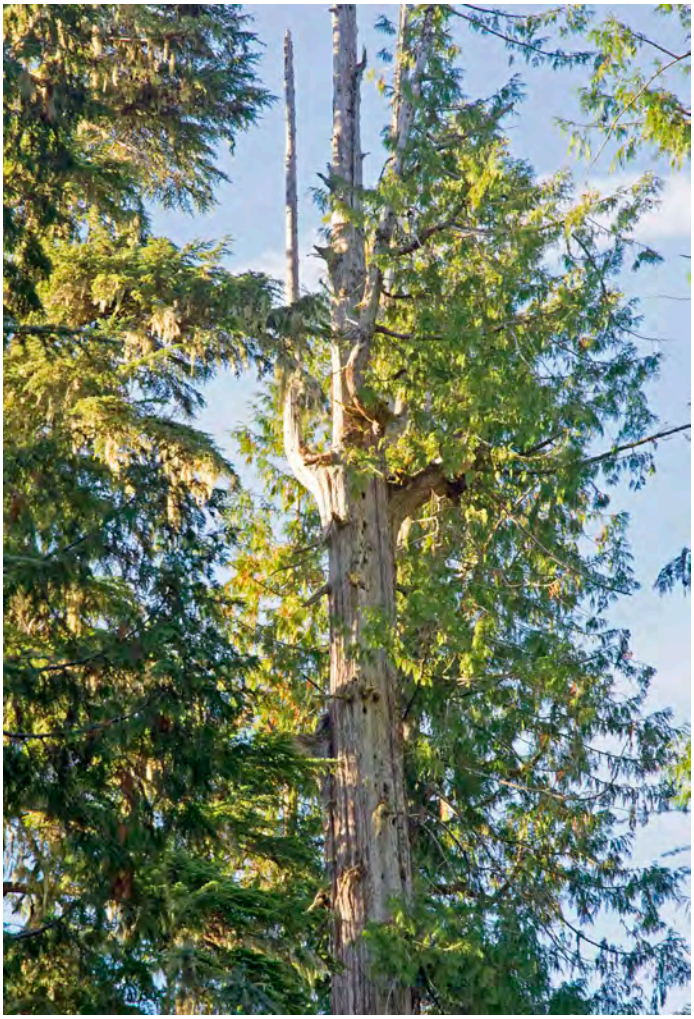
1. Administration

The proposed Douglas-Fir National Monument can be administered by either the National Park Service or the US Forest Service. The mandate and clear goal of monument designation will be the conservation and protection of the natural environment. Only uses that are compatible with that goal will be allowed in the national monument. As proposed herein, the Douglas-Fir National Monument will be established by an Act of Congress, but it can also be proclaimed by the President under authority granted by Congress in the Antiquities Act of 1906.

2. Forestry

Forestry within the national monument would be limited to previously logged lands in ways that aid the reestablishment of natural ecosystem and watershed dynamics, such as variable density thinning to accelerate the re-creation of older forest characteristics. Any logs produced by logging within the national monument will be a by-product of ecological restoration. No salvage logging after fire, windstorm, disease occurrence or insect event will be allowed, as these disturbances are natural and beneficial. As one key study says:

...post-fire (salvage) logging does not contribute to ecological recovery; rather, it negatively affects recovery processes, with the intensity of impacts depending upon the nature of the logging activity. Post-fire logging in naturally disturbed forest landscapes generally has no direct ecological benefits and many potential negative impacts. Trees that survive fire for even a short time are critical as seed sources and as habitat that sustains biodiversity both above- and belowground. Dead wood, including large snags and logs, rivals live trees in ecological importance. Removal of structural legacies, both living and dead, is inconsistent with scientific understanding of natural disturbance regimes and short- and long-term regeneration processes.[8]



A post-disturbance forest is one of the rarest and most biologically diverse ecosystem stages. Often called a "snag forest," it is full of wildlife, including species that require or prefer those kinds of forest conditions, such as the black-backed woodpecker, whose coloring allows it to enjoy food from the blackened trees with reduced risk of being eaten itself.

This giant snag, still standing in an old-growth forest near Gordon Lakes, is not a result of forest fire, but of old age. It is dotted with numerous woodpecker holes.

3. Roads

Existing US and state highways will not be affected by national monument designation other than to improve the scenic views as logged-over forests recover in time.

An extensive road system, necessary for the public enjoyment and administration of the national monument, will be maintained. Unnecessary roads will be encouraged (through recontouring of the slope, etc.) or allowed (passive restoration) to revert to nature. Some might become hiking, horseback riding and mountain biking trails. Necessary roads will be maintained and improved to make public travel safer and to make such roads more wildlife- and watershed-friendly. No new roads will be built, with the possible exception of short spur roads to new necessary visitor facilities.

4. Fires

Natural wild fire is either the rebirth or the continuation of a forest. As a general rule, fires will be left to burn naturally until they run out of fuel or the rains come. The protection of buildings will be accomplished primarily through vegetation management directly adjacent to those buildings.

5. Biological Diversity and Wildlife

A key component of management in the national monument will be to restore as much as possible the full complement of species diversity and wildlife that was historically present in the Western Oregon Cascades. Habitats favored by species that are rare, threatened or endangered, such as the northern spotted owl and the fisher, will be given highest priority for protection, and access to these habitats will be restricted as needed to preserve and increase populations at risk. Re-establishment of beavers (the Oregon state mammal) in their historic range, and the return of wolves will be encouraged. The managing agency will endeavour to maintain national monument lands in a condition that enhances their use as wildlife corridors.

6. Mining

Subject to valid existing rights, the federal public lands within the proposed national monument will be withdrawn from all forms of mineral exploitation. Any valid mining claims could proceed.

7. Recreation

Recreation that is compatible with the conservation goals of the national monument, such as hiking, birding, botanizing, photography, camping and pleasure driving will be encouraged. Hunting and fishing will remain under the jurisdiction of the State of Oregon. Off-highway motorized recreation use will be limited to kinds, and in areas, that do not harm the values for which the national monument was established.

8. Existing Homes and Businesses

The cities of Detroit and Idanha (as well as Detroit Reservoir) are specifically excluded from the Monument. The status of privately owned inholdings on federal land will remain unchanged, and traditional access will be preserved.

9. Native American Interests

The establishment of the national monument will not increase, decrease or change any Native American rights. Native American tribes with interests in the proposed national monument area will be especially consulted as to the development and implementation of the management plan.

Planning for the Future

The Douglas-Fir National Monument will provide a large net benefit to the economy of Oregon through an increase in recreation-related activities, improved water quality and the sequestration of carbon. Any loss in jobs due to a reduction in log supply from the federal public forestlands that will be part of the proposed Douglas-Fir National Monument will be more than offset by the creation of other jobs. The Monument will also provide great ecological social and cultural benefits by honoring and preserving one of the greatest ecosystems on earth, attracting visitors from around the globe and restoring a complex community of life that is unique to the Western Cascades.

The local economies in the North Santiam Canyon and the South Santiam Valley are in transition. The days of huge logging levels attained by the clearcutting of old-growth forests are long gone. Almost all state and private lands have been converted to plantations, and society has decided that what old-growth forest is left on the public lands has higher and better uses than an unsustainable wood supply.

For better or worse, the Willamette Valley will continue to increase in population and urbanization. The establishment of the Douglas-Fir National Monument can help the economic transition and diversification of local communities. There is still money to be made and jobs to be had by logging on public lands. Increasingly, there will also be money to be made and jobs to be had from a sustainable tourism and recreation based economy. People who come to see and enjoy the vast forests of Douglas-fir will need lodging, food, drink, supplies and guides. The trees of the national forest will still be producing economic value to local communities, but they won't have to give their lives to do so.

By including currently degraded forests in a national monument dedicated to long-term conservation, our grandchildren will be able to see the vast landscape of old-growth forests that our grandparents saw.

Endnotes

1. Harvey Locke, "Nature Needs (At Least) Half: A Necessary New Agenda for Protected Areas" in Protecting the Wild, George Wuerthner, Eileen Crist and Tom Butler, eds., The Foundation for Deep Ecology and Island Press, 2015.

2. Text gratefully adapted from Thor D. Thorson, Sandra A. Bryce, Duane A. Lammers, Alan J. Woods, James M. Omernik, 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).

3. Tim Lahey (Forest Products Program Manager, Willamette National Forest). June 2015. For the Greatest Good (PowerPoint presentation).

4. Mark E. Harmon, William K. Ferrill and Jerry F. Franklin, "Effects on Carbon Storage of Conversion of Old-Growth Forests to Young Forests", *Science*, Feb 9, 1990, 247.

5. Information in this section from "Why Forests Need to be enlisted in climate change actions" by Dominick A. DellaSala, Ph.D., Chief Scientist Geos Institute, 2015, and from the talk on that subject by Dr. DellaSala at the 2015 Public Interest Environmental Law Conference, Eugene, OR.

6. Information from the Outdoor Industry Association website.

7. Information from the Oregon Office of Economic Analysis (http://oregoneconomicanalysis.com/2015/08/12/oregon-exports-2015-industries/)

8. Reed F. Noss, Jerry F. Franklin, William L. Baker, Tania Schoennage, and Peter B. Moyle, "Managing fire-prone forests in the western United States", Frontiers in Ecology and the Environment, 2006; 4(9): 481–487. Ecological Society of America.

Frequently Asked Questions

• **Why a Douglas-Fir National Monument?** National parks or national monuments have been established specifically to protect outstanding examples of iconic tree or tree-like species. Redwood National Park (1968) was established to protect some of the last old-growth coast redwood (Sequoia sempervirens) forests on Earth. Yosemite (1890) and Kings Canyon (1940) national parks were established in part to conserve the giant sequoia (Sequoiadendron giganteum), as was the Sequoia National Monument (2000). The Joshua Tree (1936) and Sauguaro (1933) national parks were established to conserve and enjoy tree-like cacti (Yucca brevifolia and Carnegiea gigantea). The Big Cypress National Preserve (1974) was similarly established for the bald cypress (Taxodium distichum). The Douglas-fir (Pseudotsuga menziesii) is comparably iconic and can rival the size of coast redwood. It too, deserves protection.

• **At over 530,000 acres why is the proposed Douglas-Fir National Monument so big?**
The goal of creating a new national monument to the Douglas-fir forest is not merely to preserve the scattered fragments of older forest that remain today, but to restore ecological and hydrological integrity to a region that has undergone profound alteration since large-scale industrial logging began after World War II. Some excellent groves of ancient Douglas-fir forest are permanently protected in places like the Middle Santiam and Mount Jefferson Wildernesses. However, most of the older Douglas-fir forest stands in the area could be subject to clearcutting.

• **Aren't enough Old Growth forests already protected?**
Most forests dominated by Douglas-fir have been clearcut and converted to plantations where the trees are all of similar species, height, diameter and spacing. These plantations are generally biological deserts more akin to a cornfield than a forest.

Most of these Douglas-fir forests were mature and old-growth stands. The old -growth stand condition lasted hundreds and hundreds of years until a major natural disturbance event such as fire, wind, insects and/or disease reset the ecologically complex old forest to an even more ecologically—but relatively short-lived—complex of early seral forest. This "snag forest" or "pre-forest" eventually re-established itself with conifers and the young forest progressed into mature forest and then old-growth forest.

If we want to have a functioning Douglas-fir ecosystem across the landscape and over time, we need to conserve all the old-growth forest that is left and restore much that has been lost.

• **Why now?**
Just about a human generation ago, in 1989, approximately three square miles per week of old-growth forest were being clearcut on federal public land in Oregon. Today, while logging is but a small fraction of that historically high and ecologically devastating level, we should do what is best for the next generation.

There are number of economic, social, demographic and other trends that argue that the highest and best use of forests is no longer logging to create wood products and jobs. The timber industry has lost its social license to log native forest and trees on federal public forestlands just to feed the appetite of its mills. The best thing we can do is give our heirs the legacy that includes the conservation of large landscapes for ecological and watershed integrity and for recreational (pronounced "re-creational") enjoyment. They will appreciate our foresight and action today as we appreciate those of our ancestors who established the national parks, national monuments, wilderness and other strong and enduring conservation areas.

•**Haven't we protected enough of our natural areas?**
The major conservation networks that are the National Park System, National Wild and Scenic Rivers System, National Wilderness Preservation System, National Landscape Conservation System, National Wildlife Refuge System, National Marine Sanctuary System and National Estuarine Research Reserve System are an important part of what makes America great. These conservation systems are incomplete. Establishing a Douglas-Fir National Monument would be an important contribution to the conservation, restoration and appreciation of nature for this and future generations.

• Why in Oregon?
Oregon is central to the range of the Douglas-fir. Oregon is becoming more populated and the population is increasingly in urban and suburban settings. Natural recreation opportunities are and will likely continue to become increasingly important.

• Why in Linn and Marion Counties, Oregon?
Local communities and their economies are changing. Their future, like all futures, is uncertain. It is very likely that—due primarily to economic but also political forces—the traditional timber industry in eastern Marion and eastern Linn counties will continue its decades-long contraction.
A national monument will draw not only tourists who will spend money in the local communities, but also small, and perhaps large, businesses that can locate anywhere. They often choose to locate near permanently protected landscapes that the owners and their employees can enjoy. Economists refer to this as the "second paycheck." One can make more money working and living in (Cleveland, Dallas or nearly anywhere else), but natural and recreational amenities we have here contribute to the quality of life.

• How would the Douglas-Fir National Monument be created?
A national monument is defined as a historic site or geographical area set aside by a national government and maintained for public use. Most national monuments in the United States have been proclaimed by the President under authority granted by Congress, specifically the Antiquities Act of 1906 to protect objects of historic or scientific interest. Every president since Theodore Roosevelt—save for Richard Nixon, Ronald Reagan and George H.W. Bush—have proclaimed or expanded national monuments. Under the Antiquities Act, the proclamation only applies to federal public lands within a national monument boundary.

Less common are national monuments established by an Act of Congress. Whether legislated by Congress or proclaimed by a president using power delegated by Congress, national monuments are constitutional under the United States Constitution's Property Clause (Article IV, Section 3, Clause 2).

Oregon has three national monuments and one "national volcanic monument":
• Oregon Caves National Monument and Preserve. The national monument (480 acres) was proclaimed by President Taft in 1909 and the preserve (4,154 acres) that surrounds the monument was established by Congress in 2014 for a total of 4,234 acres).
• John Day Fossil Beds National Monument. This 3-unit national monument was established by Congress in 1974, totals 14,000 acres, in Wheeler and Grant counties and is administered by the National Park Service.
• Cascade-Siskiyou National Monument. President Clinton proclaimed a ~53,000-acre national monument in 2000, administered by the Bureau of Land Management in Jackson County. Since that time over 13,000 acres of undeveloped private lands within the outer monument boundary have been acquired from willing sellers and become part of the national monument.
• Newbery National Volcanic Monument. Established by Congress in 1990, the national volcanic monument is 55,500 acres in size and is administered as part of the Deschutes National Forest in Deschutes County.
The Friends of the Douglas-Fir National Monument's preference is for Congress to establish the Douglas-Fir National Monument. In this way, Congress could at the same time, also expand and establish new wilderness areas and wild and scenic rivers within the national monument.
If the Douglas-Fir National Monument is established by presidential proclamation, no new wilderness or wild and scenic rivers would come along as those designations can only be established by an Act of Congress. Afterwards we could continue to advocate for wilderness and wild and scenic rivers.

• What about wilderness areas?
Existing wilderness areas within the Monument, such as the Middle Santiam, Menagerie and a portion of the Mt. Jefferson Wildernesses, would remain protected as they are. For possible new wilderness areas, such as Gordon Meadows or Iron Mountain, or new Wild and Scenic River designation, such as Moose Creek, see "How would the Douglas-Fir National Monument be created?", above.

• **Why propose a project that will generate controversy?**
If every one agrees it ought to be done, it has probably already been done. There will be local people and local interests who will oppose a Douglas-Fir National Monument. Some prefer the status quo, or even a return to the logging levels of the past. The problem is that the status quo isn't static or stable. History has also shown that returning to the status quo is even more unlikely.

Most of what are today our beloved national parks, monuments, wildernesses, wildlife refuges, wild and scenic rivers and other federal conservation designations were highly controversial at the time of their establishment and the opposition was most entrenched the closer to the area. Most locals opposed the original establishment of Oregon's only National Park, Crater Lake. Locals even initially opposed protection of the Grand Canyon in Arizona, a state that now calls itself "the Grand Canyon State."

When there is a trade-off between short-term economic interests and long-term national interests, the latter should prevail.

• **Doesn't America need the lumber and other wood products from federal public forestlands?**
More raw log volume cut on private land in Oregon and Washington is exported to Japan, China and Korea than is cut off of federal public lands in those two states. Most logs in Oregon come from non-federal lands.

• **Don't we need the logging jobs on Forest Service lands?**
Since the Northwest Forest Plan was implemented, the number of mills and milling jobs has decreased by half, while the milling capacity of the remaining mills increased by one quarter. Automation replaced the lost jobs and more. The remaining jobs that used to pay more than the Oregon median income now pay less.

• **Don't the counties need the revenues from federal timber sales?**
The counties' share of federal timber receipts prior to 1990 were dependent upon logging a very large amount of very large trees. That large amount of timber was bound to run out. For nearly 25 years now, the federal government has directly given monies to the counties. These timber counties have some of the lowest property tax rates in the nation. The solution to county funding woes is for the three levels of government (federal, state and county) to all do their fair shares.

• **Isn't clearcut logging good for fish and wildlife?**
No. Clearcut logging and associated logging roads cause erosion that reduces water quality and therefore the number of fish. Thousands of species of wildlife find homes in the habitats provided by complex very large and very old stands of forests. The massive logging of forests is contributing to the endangerment of numerous species.

• **Without timber management, (primarily by clearcutting) won't the forest burn up and/or die off?** A forest fire is either the beginning of a new forest or the continuation of the current forest. Fire (and wind and native insects and native diseases) are natural disturbance events that are beneficial to fish and wildlife, and to ecological and watershed function. For instance, salvage logging after a fire removes essential wood mass needed for the forest to recover. There is no ecological or hydrological benefit to doing so.

• **Won't a National Monument designation "lock out" most users?**
The majority of the proposed national monument is already readily accessible by road. That won't change. Some has been established as Wilderness or consists of roadless areas where there never were roads. While it is proposed that unnecessary roads be decommissioned for the benefit of watersheds, wildlife and the federal taxpayer, it is also proposed that the remaining roads be improved for the benefit if public safety and enjoyment and for the proper administration of the area.

Both treatments of roads would create jobs in the woods. The costs of maintaining such vast amounts of little used roads that went to every old clearcut are huge and an unnecessary expense.

• Don't local people know best how to manage the land?
When profits, wages or life styles are dependent upon logging, "locals" have a conflict of interest and their views must be examined for bias. "Local" management led to the vast roading and logging of forests and watersheds to the detriment of water quality, fish, wildlife, recreation and scenery.

• Isn't a National Monument unnecessary since inappropriate logging is thing of the past?
We would like to think so, but logging practices can and do change in the winds of political change. Monument designation specifying restoration forestry will go a long way to make sure old practices don't return.

• Isn't salvage logging a thing of the past?
While salvage logging after a natural disturbance is somewhat less likely to happen than in the past, it is still a major threat to forest and watershed integrity.

• How can a future Presidential administration, hostile to conservation, succeed in the large-scale resumption of inappropriate logging?
The Northwest Forest Plan was implemented during the Clinton Administration. The ecological, legal and political crisis was provoked by the Reagan Administration and amplified by the George H.W. Bush Administration. Even the Obama Administration has been trying to weaken the Northwest Forest Plan.

• Don't administrative land allocations and overlays preclude inappropriate logging?
The Northwest Forest Plan was affirmed by actions of the courts, the White House and the scientific community. In spite of that, land management agencies (US Forest Service and the BLM) resist having their management discretion limited and they have worked to undercut the Northwest Forest Plan. BLM is well along the way in eroding its portion of the Northwest Forest Plan and the Forest Service has plans to do so also.

• Isn't plantation logging beneficial for nature and for wood production?
It depends upon the kind of logging in the plantations. Most conservationists (including Friends of Douglas-Fir National Monument) support scientifically sound ecological restoration thinning with appropriate requirements that protect streams, dense-forest dependent species and other resource values that put the timber plot on a path to becoming more biologically diverse. Such logging results in a very significant amount of commercial timber volume produced, but it is a byproduct of silvicultural management. Most conservationists do not support "variable retention regeneration harvest" ("sloppy clearcut") in plantations.

There is no shortage of early seral forest habitat on non-federal forestlands due to continued wide-scale clearcutting.

• Aren't there already enough National Monuments, National Parks and Wilderness Areas in Oregon that contain Douglas-fir forests?
In Oregon, low elevation old growth forests are in short supply. There are some Wilderness areas with magnificent stands dominated by low-elevation old-growth Douglas-fir (e.g. Drift Creek, Middle Santiam, Opal Creek, Salmon-Huckleberry, Boulder Creek). But these Wilderness Areas are relatively small. A Douglas-Fir National Monument would help make up for that deficit.

Establishing the Douglas-Fir National Monument

A national monument can be either established directly by an Act of Congress or by presidential proclamation using powers granted by Congress to the president in the Antiquities Act.

The proposed Douglas-Fir National Monument would encompass vast stands of Douglas-fir forest, other types of forest, as well as dry and wet meadows, talus slopes and alpine peaks.

Establishing the Douglas-Fir National Monument would conserve and restore:

- biological diversity
- natural forest succession, across the landscape and over time, from open meadows to young forests to old growth and back again through natural disturbance from fire and windstorms
- air quality
- native wildlife
- wild lands
- free-flowing streams
- outstanding scenery
- quiet recreation
- historical sites, roads and trails
- geological features
- dark sky
- archeological, paleontological and cultural resources

Many of these values qualify, under the terms used in the Antiquities Act, as objects of historic or scientific interest. Conserving and restoring these values can also both mitigate and adapt to climate change.

The national monument designation will ensure recreational use and public enjoyment for this and future generations in manners that are compatible with purposes of the Douglas-Fir National Monument.

Significant portions of the proposed Douglas-Fir National Monument are presently in "plantations"—area that were previously clearcut of their older forest and replaced with monoculture plantations of Douglas-fir similar size and spacing. Through scientifically sound restoration forestry practices (forest thinning, road decommissioning and closure, prescribed burning, and interplanting of other native tree species, etc.), over the course of a few decades, these plantations will be on a path to again become fully functioning natural forests. During the transition period significant amounts of commercial logs that are a byproduct of thinning will be available for milling.

Administration of the Douglas-Fir National Monument
Either the National Park Service or the Forest Service should administer the DFNM. Federal public lands within the Douglas-Fir National Monument currently administered by BLM should be transferred to the new or continuing administering agency.

Wilderness and Wild and Scenic Rivers within the Douglas-Fir National Monument
The Middle Santiam, Mount Jefferson and Menagerie Wildernesses and the Quartzville Creek Wild and Scenic River will continue to be managed as such. If congressionally enacted into law, the existing wilderness areas and wild and scenic river should be expanded and extended respectively. New wilderness areas would include, but are not limited to: Three Pyramids, Iron Mountain, Browder Ridge, Jumpoff Joe, Gordon Meadows, Moose Creek, Crabtree Valley, and Lava Lake Meadows area. In addition wild and scenic river protection should be extended to, but not limited to: South Santiam River, Middle Santiam River, North Santiam River, Breitenbush River, and Crabtree Creek.

Mineral Withdrawal
Subject to valid existing rights (if you have a valid claim it would still be valid) all federal public lands would be withdrawn from the location (claims), leasing or sale of mineral resources, save for road rock from existing sources to maintain the road network within the DFNM.

Non-Federal Lands
No non-federal land within the Douglas-Fir National Monument would be subject to eminent domain because of the Douglas-Fir National Monument. Traditional access across public lands would be assured. If any such lands are acquired by the federal government from willing sellers or willing traders, they become part of the Douglas-Fir National Monument.

Water Rights
Senior water rights would be protected.

Hunting and Fishing
Hunting and fishing would continue to be allowed and managed by the Oregon Department of Fish and Wildlife on all lands within the Douglas-Fir National Monument, to protect public safety in small areas such as campgrounds.

Recreation
Recreation including walking, hiking, mountain biking, horseback riding, hunting, angling, dispersed camping, and birding in a manner consistent with the purposes of the Douglas-Fir National Monument.

Motorized Vehicle Use
To further the purposes of the Douglas-Fir National Monument, motorized vehicle use in the Douglas-Fir National Monument would be limited to¬ roads maintained for that purpose. No off-road motorized use would be allowed.

Timber Management
Logging, except to protect public safety along heavily used roads, would not be permitted in natural forest stands within the Douglas-Fir National Monument. Scientifically sound ecological restoration thinning of existing timber plantations would be encouraged so as to restore older forest character and diversity into these managed stands. It is expected that commercially valuable logs would be a byproduct of such restoration management and would last at least two decades.

Roads
No new roads would be allowed in the Douglas-Fir National Monument. Roads unnecessary for public access or administration (including supporting scientifically sound ecological restoration thinning and fire management) would be decommissioned. Necessary roads would be improved to make them more watershed and wildlife friendly and safer for public travel.

Water Development Projects
No dams or diversions would be allowed in the Douglas-Fir National Monument.

Management Plan
A comprehensive management plan would be prepared in three years with significant public involvement.

Tribal Use
Nothing in the designation of the Douglas-Fir National Monument would alter, modify, enlarge, diminish, or abrogate the treaty rights of any Indian tribe, including the off-reservation reserved rights.

Land Exchanges
Land exchanges of non-federal lands in the Douglas-Fir National Monument with federal lands within or outside of the Douglas-Fir National Monument that improve the Douglas-Fir National Monument would be allowed.

The Story of the Douglas-fir Tree

The unmistakable 3" cone of the Douglas-fir. Note the "pitchfork-shaped" bracts emerging between the scales.

1" blunt-tipped needles form a "bottle-brush" shape around the twig and show two faint white stripes on the underside of the needles.

Old growth tree in the proposed Douglas-fir National Monument

The Douglas-fir is the state tree of Oregon and the second tallest tree species in the world, behind only the coastal redwood. It can grow to over 300 feet tall and up to 10-feet in diameter (far too large for one person to hug!) They can live for over 500 years, and the oldest known tree was 1,400 years old. Douglas-firs and other tree species in Crabtree Valley and the Millennium Grove are believed to be nearly 1,000 years old.

In the era of climate change, old-growth forests make a major contribution to carbon sequestration, safely storing what was atmospheric carbon dioxide in the wood and soils.

As the most common tree species in Oregon, it serves as the signature old-growth species in the proposed Douglas-Fir National Monument. There it supports not only the threatened northern spotted owl and one of its primary food sources—the red tree vole—but many other animals. Elk and black-tailed deer use old-growth for winter cover and will browse on its understory foliage in the winter when other forage is lacking; black bears are known to hibernate in the rotted-out cavities at the base of older Doug-firs.

Porcupines eat the inner bark of younger Douglas-firs; seeds are very important food for mice, voles, shrews and chipmunks; the Douglas ground squirrel caches cones for use throughout the winter.

Any number of birds eat the seeds of Douglas-fir -including dark-eyed junco, song, white-crowned and golden-crowned sparrows, pine siskin, purple finch and red crossbills.

The proposed Douglas-Fir National Monument contains vast stretches of Douglas-fir and numerous small stands of old-growth. Our mission is to restore the area to the fully natural functioning forest it once was.

Visit our website for current information about the proposed monument at http://www.douglasfirnationalmonument.org/ To contact Friends of Douglas-Fir National Monument, email David Stone, President at dns@efn.org

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