Willamette National Forest

2000 ANNUAL REPORT

KEEPERS OF OUR FOREST

Signing of a Memorandum of Understanding:
The Confederated Tribes of the Grand Ronde and Willamette National Forest, January 2000

Photo by Kim Mueller

United States Department of Agriculture

Forest Service
Pacific Northwest Region

INSIDE

Message from the Forest Leadership Team

Our Forest Service strategic plan goals are to create ecosystem health and provide multiple benefits to communities, scientific and technical assistance, and effective public service. In 2000 we worked to meet those goals. We also fought fires across the nation in one of our worst wildfire seasons, and we helped accomplish several nationally directed Forest Service initiatives.

To do these things on the Willamette National Forest takes many people with a stewardship ethic. Employees, partners, Native American tribes, contractors, volunteers, community organizations, and individuals all participate in this endeavor.

As in years past, this report features just some of the people, hearts, and projects behind that hard work. We always remember that you trust us with caring for this great Forest, and we will always do our best to earn that trust. An example of the "other" groups that participate in Forest stewardship is the Youth Conservation Corps (YCC). During this eight-week program youth participate in all sorts of work from clearing trails to repairing campground facilities.

The Forest gains by having needed work completed and building community relationships. To see what the youth gain, read the quotes on this page from a journal kept by those who participated in the Middle Fork Ranger District's 2000 YCC program.

DARREL L. KENOPS
Forest Supervisor

Y. ROBERT IWAMOTO
Deputy Forest Supervisor

MARLEE STUBBLEFIELD
Executive Assistant

"Today we went around and fixed all of the bridges, the loading dock, and cleaned the water bars out. It was hot, but time went by fast. We ran into a couple of riders that thanked us about 100 times for doing repairs."
—Matt

"My most precious memories of this trail will not soon be forgotten for they are left on my face, arms, legs and scalp. These welts (small insignificant "bug bites" from Jurassic period mosquitoes) seem to itch for all eternity."
—Sabrina

The Middle Fork Ranger District Youth Conservation Corps program symbolizes our commitment to work with youth as well as many other people and organizations.

"Today we went up Fall Creek and picked scotch-broom, thistle, and tansy. It was kind of cool when we would hook the scotch-broom up and yank it. Sometimes it would not want to come up but we would try and try again."
—Andrea

"As we were making our journey back home, Uni spotted a wounded bat along the trail. We picked it up with a shovel and gently put it down on the side of the trail. Hopefully the little guy will make it."
—Jessy

Expenditures, Receipts, Goods and Services

(PROGRAM YEAR 10/1/99 TO 9/30/00)

Goods and Services Provided by the Willamette National Forest

NATURAL RESOURCE MANAGEMENT

Forest Products

MMbf* Timber Offered	2	Acres Reforested	1,276
MMbf* Timber Cut	29	Acres Timber Stand Improvement	9,557
MMbf* Alternative Volume	0	Cords of Firewood	1,880
*Million Board Feet		Trees Planted	669,000
Christmas Trees Harvested	5,006		

Soil / Water / Wildlife / Fish / Botany

Wildlife Habitat Improvement Structure	312	Miles/Stream Inventory	44
Acres Soil/Watershed Improvement	38	Miles/Anadromous Stream Restored	11
		Miles/Inland Stream Restored	2

RECREATION, LANDS & MINERALS

Recreation Visitor Days	4,378,380	New Heritage Sites	10
Miles of Trail Reconstruction }	3	Acres Surveyed in FY2000	2,500
Miles of Trail Construction }		Passport in Time Projects	3
Miles Trail Available	1,760	Mining & Geology Activities Administered	328
Miles Scenic Byway Management	171	Trail Park Receipts	$ 49,055
Boating Sites	25	Cougar Rec Area Receipts	$ 69,300
Recreation Special-Use Permits	380		

FIRE & ENGINEERING

Acres Wildfires Fought	24	Miles of Road Closed	710
Acres Fire Hazard Reduction	1,631	Miles of Road Decommissioned	13.8
Person-Days Fire Support	2,725	Miles Road Constructed	0.6
Number of Fires Fought	80	Miles Road Reconstructed	80.6
		Sites, Emergency Flood Repair	125

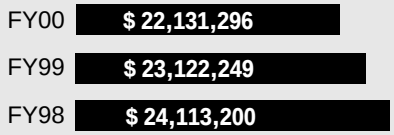
The Forest conducts annual inventories using an infrastructure database called INFRA. Its purpose is to help us better communicate funding needs in a credible way. Last year the following were identified:

570 Buildings	6,364 Miles of Roads
191 Developed Recreation Sites	208 Road Bridges
275 Trail Bridges	265 Major Culverts

2000 Budget & Expenditures

Final Budget..... $ 40,906,139
Expenditures* ..... $ 39,451,563

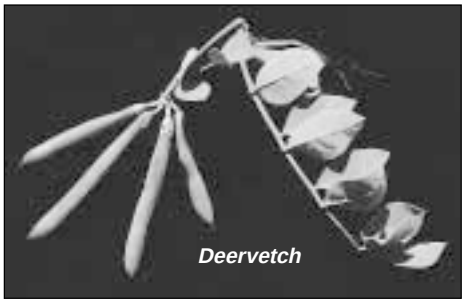
FY99 Receipts To Counties



COUNTY	AMOUNT
Clackamas	$ 11,650
Douglas	$ 684,361
Jefferson	$ 8,492
Lane	$ 13,266,409
Linn	$ 6,314,086
Marion	$ 1,846,298

Going Native

Volunteers from the Siuslaw and Willamette National Forests as well as the Eugene Bureau of Land Management got a taste of sunshine during the spring of 2000 when they helped botanists plant 2400 "big deervetch" seedlings at two garden sites.


Deervetch

Botanists are hoping this native plant will grow well in the rocky, austere conditions that exist along the sides of roads. Big deervetch is a good candidate because, being a legume, it is a nitrogen fixer, which means it can deal with low organic content in soil. Its large taproot, which finds water when sources at the surface dry up, also makes it drought tolerant.

Big deervetch isn't currently used in the roadside seed mix. Through this project, botanists hope to learn how best to germinate seeds in a commercial setting, how best to grow the plant and how long the plant takes to flower and fruit.

The Natural Resources Conservation Service had germinated 300 families of the seeds during the winter and botanists randomly selected four seedlings per family, which were planted in each of two common garden sites.

Common gardens put different stresses on plants, allowing genetic differences to reveal themselves.

One garden has deep soil, lower elevations, irrigation, and a longer growing season. The other has rocky soil and very droughty conditions in summer. These two gardens will help determine how far the native seeds can be moved from their original location.

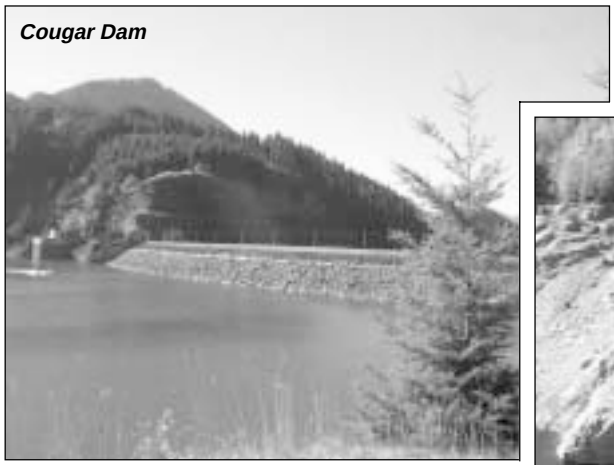
Just Right

In the story of the "Three Bears," Goldilocks had a hard time finding the right bowl of porridge to satisfy her palette. It took three tries before she found food that wasn't too hot or too cold.

A somewhat similar problem has occurred on the McKenzie River. This river system is the primary watershed for wild populations of spring Chinook in the Willamette basin and bull trout, both threatened species. Compared to conditions prior to construction of Cougar dam, downstream McKenzie River temperatures are too cold in spring and too warm in summer. The cooler temperatures impact upstream migration of adult fish and warmer temperatures reduce survival of juveniles.

The U.S. Army Corps of Engineers began construction on a temperature control project October 2000 to address this issue. The project will take four to five years to complete and will result in a multi-level tower in Cougar Reservoir that will essentially pull reservoir water from different depths depending on what temperature of water is needed to transport downstream.

To complete the project, the Corps will need to draw water down to an extremely low pool level from May to October during the construction years of 2002 to 2005. The reservoir will be at normal flood control levels from November to April.


Cougar Dam


This tower will be modified to control water temperature.

Protecting Another Spotted Critter

As of 1999, only two known Oregon spotted frog breeding sites existed in the Mink Lake Basin of the Three Sisters Wilderness on the McKenzie Ranger District. About 70 percent of the historic populations of this medium-sized frog have disappeared.

To aid in their recovery, the Willamette National Forest joined the U.S. Fish and Wildlife Service and the Oregon Department of Fish and Wildlife in signing a Conservation Agreement for the Mink Lake Basin spotted frog population last summer. This 10-year agreement will try to stabilize or increase the spotted frog population at Mink Lake Basin, reduce threats, and increase distribution among available suitable habitats.

Named because of the black spots on the backside of its head, body, and legs, the Oregon spotted frog lives in wetlands like springs, ponds, lakes, and sluggish streams that contain shallow water and abundant aquatic plants. Wetland loss and the introduction of non-native fish significantly impact the spotted frog.

The Conservation Agreement includes monitoring, public education, site protection, habitat surveys, review and evaluation of potential impacts.

Photo credit: Spotted frog by Alan D. St. John

Clearing up County Creek

With little or no knowledge about water quality and fish habitat, people who visit the Upper McKenzie River watershed innately get a sense that it is in healthy condition. The water runs clear and cold in the streams and large trees line the banks. So why did the Willamette National Forest choose County Creek, an area within this watershed, for a restoration project?

The Northwest Forest Plan states that restoration efforts should focus on projects that control and prevent road-related slope failures as well as reduce long-term chronic supplies of fine sediment to streams. The County Creek project met these objectives by:

- Obliterating over 6 miles of road
- Placing 6 miles of road into storage
- Restoring 23 stream crossings
- Reforesting 14 acres of former road surface
- Removing over 4500 cubic yards of unstable sidecast materials
- Reconstructing portions of over 11 miles of road

The project provides a transportation system that meets the needs of the recreating public as well as future land management activities. In addition, these efforts will improve watershed conditions, indirectly improve the habitat quality of Chinook salmon and bull trout populations in the McKenzie River, and substantially reduce the potential impacts to water quality during the next fifty-year storm event.

As part of the County Creek project, this road was obliterated using techniques like sidecast pull back and backfilling the road prism.

Multiple Benefits to Communities

Building Trust

The Forest took two significant steps to build tribal relationships and fulfill the trust responsibility to work with American Indian tribes on a government-to-government basis.

First, after three years of discussions and rewrites, the Forest signed a "memorandum of understanding" (MOU) with the Confederated Tribes of the Grand Ronde in January 2000. The MOU recognizes that the Forest is part of the homeland for the Grand Ronde and that culturally significant areas within Forest boundaries serve an important role in historic, current, and future use.

The MOU encourages meaningful tribal involvement in land management planning in ways like deferring to the tribe on matters relating to sacred or ceremonial traditions and cooperating on cultural studies of mutual interest.

Second, Forest managers attended a four-day workshop hosted by the Confederated Tribes of the Warms Springs Indians. This workshop educated managers in Warm Springs culture, traditions, treaties, ceded lands and history, and gave managers a better understanding of the tribal perspective on natural resources management.

Crowds at Three Pools in the Opal Creek Scenic Recreation Area

Advising Opal

A 13-member advisory council was formed in 2000 to comply with legislation that established the Opal Creek Scenic Recreation Area (Opal Creek SRA).

The council serves as a consultant on matters relating to the management of the 13,408-acre Opal Creek SRA, including the preparation of a management plan. The SRA management plan will provide management direction on a broad range of land uses including recreation, harvesting of non-traditional forest products, and education and research opportunities.

The council meets twice a month. Meetings initially involved becoming familiar with Opal Creek SRA issues and concerns; however, they quickly moved into developing recommendations for future SRA management.

All meetings are open to the public. The Council is just one method of public participation and the district will use other means to obtain public input for the plan. All Opal Creek advisory council activities are published on-line at: http://www.fs.fed.us/r6/willamette/mgmt/opalcreek/opalcreek.htm.

Group photo of The Confederated Tribes of Grand Ronde Council and Willamette National Forest Staff to commemorate the MOU signing.
Photo by Kim Mueller

Multiple Benefits to Communities

Reclaiming History

It started with the 50th anniversary of the 12,000-acre Sardine Fire. Archaeologist, Cara Kelly, wanted to interview retired Forest Service employees involved in the fire to capture some of the Detroit Ranger District history.

So in 2000, several employees along with four volunteers were trained in the art of oral interviews and began talking to 11 retirees.

As the interviews progressed, Cara realized Forest Service employees were intimately involved in community life in the North Santiam Canyon. The interviews painted a broad picture—not only about the stresses of a major fire, but about people connecting with each other in a small mountain community.

She heard statements like "The ranger station was involved with the town and the town was involved with the ranger station." This was proven by another retiree who said, "The whole town was involved in the sports in the school. When we went to Pendleton for playoffs, Detroit was just kind of shut down and everybody was in Pendleton. It was a community thing and it was just a fun thing."

Cara plans to continue interviewing a few people each year to develop a richer image of Forest Service and community life in the canyon.

Sweet Sewer

In 2000, the Detroit-Idanha Sewer project moved closer to becoming a reality through cooperation among the cities of Detroit and Idanha, the Willamette National Forest, USDA Rural Development, and the State of Oregon.

The communities have been working for the past seven years to find a location for the sewer treatment facility and to secure the funding for the project. The Detroit Ranger District staff completed an environmental analysis and Forest Supervisor, Darrel Kenops signed the decision to sell the communities about 88 acres of National Forest lands for their sewer treatment facilities.

The Forest Service will use the authorities under the Townsite Act to sell the land. To help fund the project, the Forest Service is providing a grant to the communities for $298,500. The remainder of the funding will come from USDA Rural Development ($4.9 million), congressional appropriation ($185,000), Oregon Economic and Community Development Department ($1.4 million), and Oregon Community Development Block Grant ($750,000).

The new sewer will provide service to the communities, the Detroit State Park, and the Forest Service District administrative site. The construction of the sewage treatment facility will bring the communities into compliance with the Clean Water Act.

From interviews of retired Forest Service employees involved in the Sardine Fire, we learn that the Detroit community and the ranger district were closely intertwined.

Sardine Fire, 1951

Scientific and Technical Assistance

Calling All Chinook

Historically, spring Chinook salmon lived and spawned in the Middle Fork of the Willamette River; however, Chinook survival in the river today sometimes requires assistance. Techniques like propagating young, and trapping and hauling fish above the river's three dams help maintain existing populations.

In 1999 and 2000, fisheries biologists on the Middle Fork Ranger District conducted a comprehensive study using radio telemetry, redd (spawning bed) surveys, and a fish trap. This study looked at spring Chinook migration patterns, spawning patterns and success rates, and emigration survival through the upper dam, called Hills Creek.

For the radio telemetry survey, biologists implanted 15 adults that had not yet spawned with transmitters and then released them at three locations upstream of Hills Creek Reservoir. Biologists pinpointed the in-stream position of the fish first by vehicle, then by ground once a week.

Through the telemetry, redd surveys and fish trap, biologists learned that spring Chinook effectively reproduce upstream of Hills Creek Dam and passage through the dam outlets does occur. In addition, the current practice of transporting salmon to highly productive, but non-accessible habitat should continue. Finally, the study recommends that enhancement projects in accessible areas should occur to augment spawning habitat.

Fish were anesthetized, then implanted with a transmitter and whip antenna. The entire process took less then one minute, and fish were then transferred to the release sites.

Infamous Fire

For thousands of years, fire has shaped and influenced forests in western Oregon. These fires ranged from rare ones that killed most of the vegetation to frequent ones that burned off underbrush and left much of the forest intact. Plants and animals adapted to these patterns and many benefited directly from them.

1996 Charlton Fire

Over the last 50 years, fire suppression activity has changed forest conditions, resulting in higher levels of combustible materials, forest stands that are too densely stocked, native plant communities that are being overtaken by non-native species, and other less than desirable forest conditions.

In 2000, the Willamette National Forest and the Eugene and Salem Districts of the Bureau of Land Management developed a strategy, called the Integrated Natural Fuels Management Strategy (INFMS), that identifies possible approaches for returning our forests to a more balanced condition. The strategy also identifies a method for establishing priority activities to reduce the potential for large-scale destructive wildfires.

An INFMS website www.edo.or.blm.gov/infms provides considerable background material, information, and opportunities for feedback on the strategy.

Are the Species in the Feces?

Bats are great insect eaters and important pollinators but, in places, are having a difficult time surviving because of habitat loss and human disturbance. In trying to collect information to ultimately help bats, Willamette biologist Pat Ormsbee realized "we were really harassing these little guys."

DNA samples are taken from bat wings.

She began to wonder if there was a way to use genetic markers in guano to identify bat species without handling them. A geneticist at Portland State University had the same passion, so the two partnered to learn if this could be done.

They collected wing biopsies (material from a small hole punched in the wing, which re-grows in a few weeks) for extracting DNA to develop genetic markers that also could be found in the smaller amounts of bat DNA available in fecal samples. This helped show that guano would be a reliable test for genetically identifying bat species, and last year they identified the specific DNA markers they needed to find. The two are now in their second year of data collection using bat guano.

This research has two management functions that could eventually have international implications:

1) It enables researchers to monitor roosts without harassing bats, reducing disturbance and giving researchers a better idea of use trends because bats tend to avoid areas where they are disturbed.
2) Bat species that are difficult to differentiate can be more accurately and confidently identified using genetic markers.

While they still have to develop the protocol to ensure guano collection that will provide reliable results, their findings are positive enough that other bat researchers are taking interest.

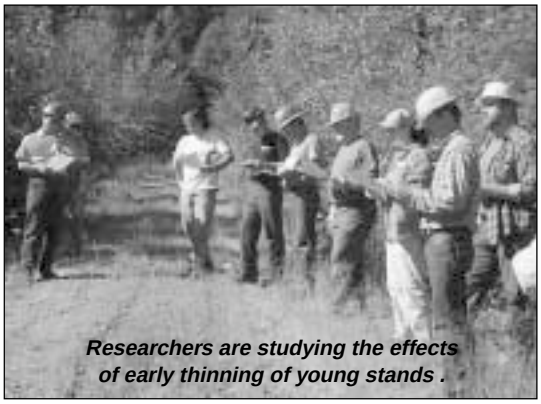
Young and Thin

Most people dread the day they notice signs of aging including the evidence of getting a little "thin on top." The same people can get excited about the prospect of purposefully thinning out trees in young forested areas to give them the features of an old-growth forest.

In fact, last year 150 people attended a workshop to discuss a young stand thinning study in the Central Cascades Adaptive Management Area. This long-term study, which also incorporates underplanting and snag creation, tests treatments to see if they can bring about old-growth habitat in 35- to 45-year-old plantations.

Thinned areas are compared to areas where no thinning has occurred. Researchers look at various forest elements like plants, songbirds, small mammals, and mushroom populations to see if the treatments create diversity.

In addition to the workshop, almost 50 people attended one of three field tours to see the results of thinning in even younger (15- to 20-year-old) trees that are growing in areas called "late successional reserves" (areas set aside in the Northwest Forest Plan to retain or develop old-growth characteristics.)



Researchers are studying the effects of early thinning of young stands .

The early stand thinning used techniques like varied spacing, wide spacing, gaps, clumps, hardwood retention, and meadow maintenance.

As researchers learn more, it is possible that both very early thinning and the young stand thinning can be used together to achieve a head start on developing those "signs of aging" in the forest.

While final conclusions have yet to be made, researchers are documenting differences in stands thinned only four or five years earlier.

Story of Suspense

A nursery rhyme begins: "There was a crooked man who walked a crooked mile." Crooked things in nursery rhymes may be entertaining, but they can be dangerous when it comes to bridges.

Take, for example, the Blowout Creek suspension bridge. Constructed in 1952, this bridge spans a portion of Detroit Reservoir. The suspension cables for the bridge had deteriorated and caused the bridge to tilt, giving it a rather crooked look.

Only a single center wire supported the bridge so in June, the Forest closed it for repairs. The bridge was in such poor shape that Detroit Ranger Stephanie Phillips also closed the area underneath the bridge to boats.

This historic and popular bridge was first built for the North Fork of the Santiam River located near the old town of Detroit, and was moved after the reservoir was built. It is also one of few remaining examples of a once commonly used bridge design.

That crooked man may have enjoyed his crooked house, but the Blowout Bridge is no longer crooked. It still has its historic quality and feel, yet new materials such as cables attached to anchors with steel rods suitable for ground contact, make the reconstructed bridge even safer.

The bridge prior to repairs...

Deteriorated suspension cables were replaced.

Popular Science

"Nature Talks" appeal to all ages.

Years ago, a few scientists from the H.J. Andrews Experimental Forest agreed to present some of their research at the newly constructed Delta Campground Amphitheatre despite concerns that the complexity of the research could prove too difficult for some people. However, campground visitors and local residents responded enthusiastically and "Nature Talks" was born. To date, nearly 3,000 people have enjoyed the presentations.

What makes the series special is the cadre of presenters. Most are scientists who work out of the nearby Andrews Experimental Forest. The unique situation of an experimental forest in the backyard of the Willamette creates direct access to scientists who daily increase managers' understanding of how a forest community works.

While the public benefits from access to scientists, the scientists benefit from the experience of explaining their work to a lay audience. Though to some scientists, this just comes naturally. Dr. Andy Moldenke, an Oregon State University entomologist, uses humor to great effect. "I just try to be direct. What's a simple way to get across the fact that our forest soil is the result of billions of microscopic bugs processing forest litter? I simply say forest soil is bug poop," he says.

Nature Talks! begins the first Saturday in July. For an online schedule, go to www.fsl.orst.edu/ccem and click on "Learning Opportunities."

The suspension bridge after reconstruction.

Expeditious Award

Last year, Chief Mike Dombeck honored the Sweet Home Ranger District with a National Award for Excellence for the district's Heritage Expedition project called "Trekking the Old Santiam Wagon Road."

The district held two expeditions where 34 trekkers hiked, camped, and explored. Trekkers learned about the stewardship provided by the Forest Service and employees gained a greater understanding of public attitude and natural resource knowledge.

Addie learned about mule packing during the Heritage Expedition.

As a fee demonstration program, the expeditions helped complete much needed work. Proceeds were used to fund cultural resource restoration projects and several trekkers volunteered to help the district after their experience.

CCC

From 1933 to 1942, the Civilian Conservation Corps (CCC) gave jobless young men work as part of a national relief program during the Great Depression.

In Oregon, 50 CCC camps were built that housed 200 men each. The U.S. Army provided housing, food, clothing, medical care, pay, and education programs while the Forest Service provided work, supervision, and training. The men did everything from building roads to fighting wild fires.

In 2000, the Willamette National Forest hosted two CCC ceremonies at Longbow and Clark Creek Organization Camps to honor the men who participated in this program.

In a letter of thanks, the current vice president of a local chapter of CCC alumni called the signs and bronze plaques that were erected as part of the ceremonies "works of art, which will be enjoyed by the public for many years."

Honoring the men who served in the CCC.

By the Way

The McKenzie Ranger Station has received a "facelift" to help serve an ever-growing number of visitors to two of Oregon's National Scenic Byways (NSB).

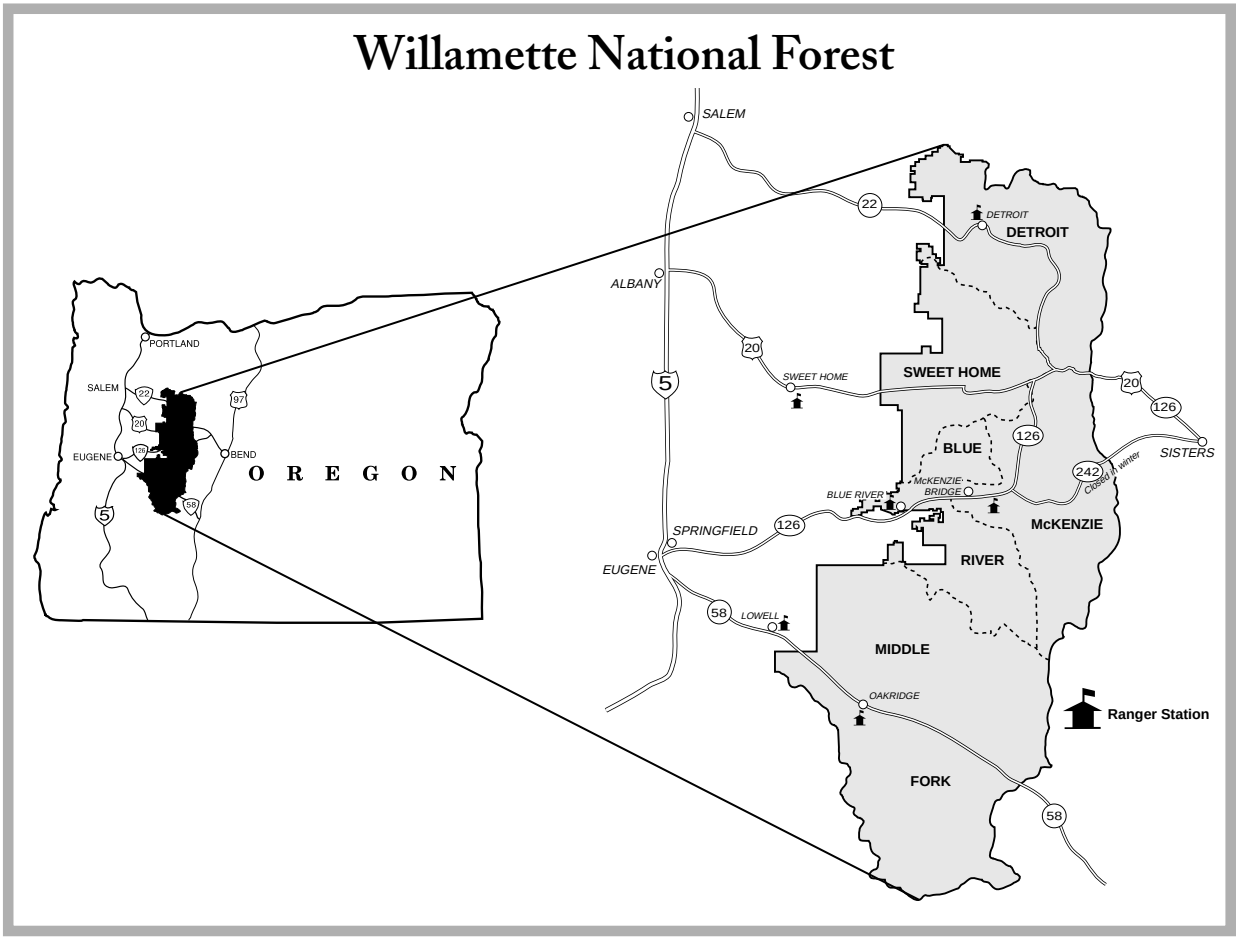
The district serves as an entryway, or "portal" into the McKenzie Pass/Santiam Pass NSB and West Cascades NSB. Portals often serve as rest and information stops to orient visitors, help them determine which sites to see along their drive, help them identify potential experiences off the byway, and familiarize them with available services along the way.

The portal project was enabled by funding from the Federal Highway Administration and the National Scenic Byways Program.

Front view of the portal during construction.

The project includes nearly 1400 square feet of new front office space –most of which will serve as public space for byway travelers, National Forest recreationists and the local community.

Willamette National Forest



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Mill City, OR 97360
Phone (503) 854-3366

McKenzie Ranger District
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McKenzie Bridge, OR 97413
Phone (541) 822-3381

Middle Fork Ranger District
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Westfir, OR 97492
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Phone (541) 937-2129

Sweet Home Ranger District
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Sweet Home, OR 97386
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