



United States Department of Agriculture

# Okanogan-Wenatchee National Forest 2015 Accomplishment Report

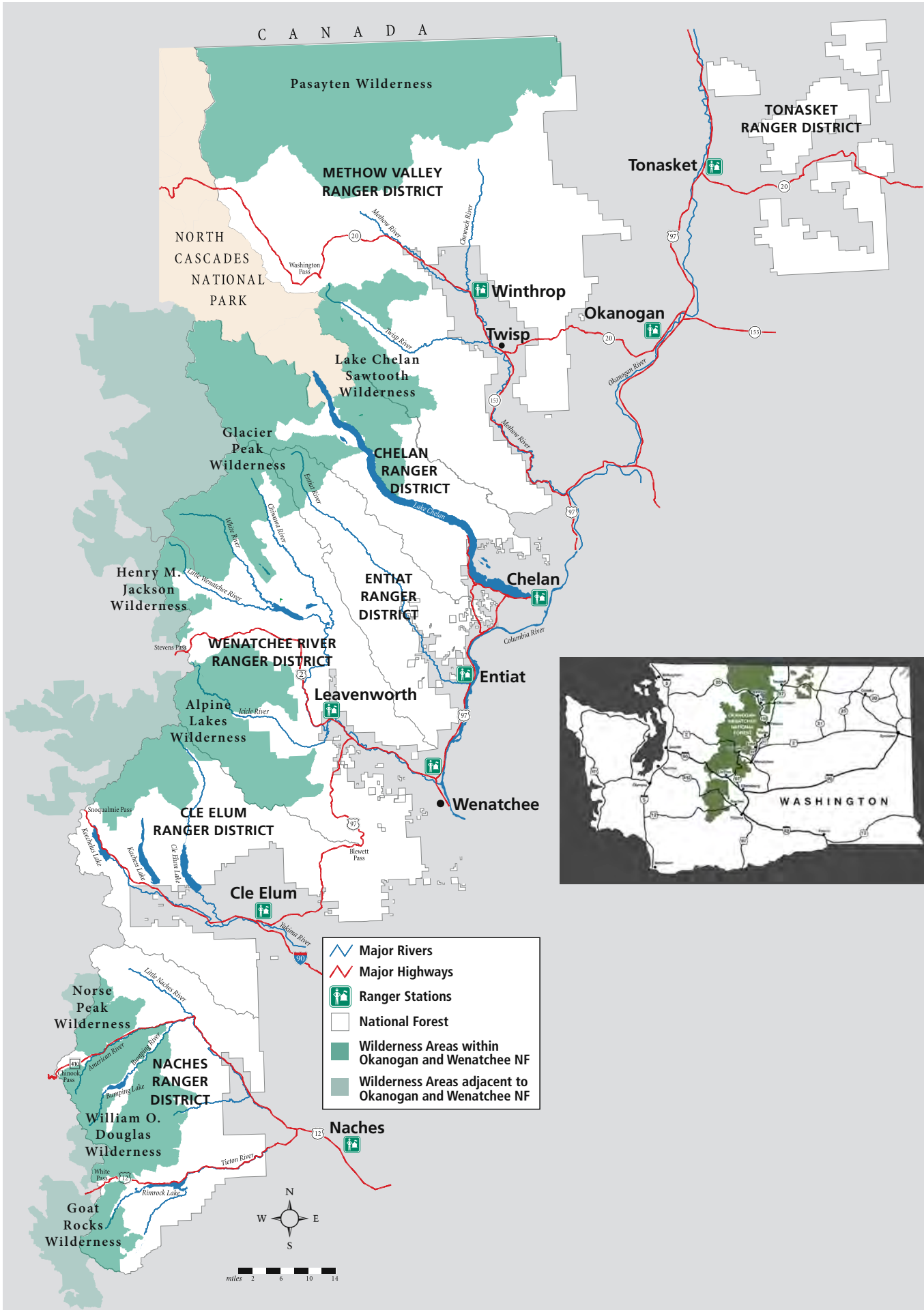


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Pacific  
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Region

Okanogan-  
Wenatchee  
National Forest

C A N A D A





# Okanogan-Wenatchee National Forest 2015 Accomplishment Report

## SUSTAINABLE PUBLIC BENEFITS

The Okanogan-Wenatchee National Forest resources provide significant public benefits in water, forage, wildlife, habitat, wood, recreation, and minerals. While these resources are managed under the multiple use concept to provide the public with a wide variety of benefits, an important emphasis of that management is to maintain and enhance sustainable ecosystems for future generations.

## ABOUT THE FOREST

The Okanogan-Wenatchee National Forest encompasses more than 4-million acres in Washington state and stretches north to south from the Canadian border to the Goat Rocks Wilderness - a distance of about 180 miles. The forest lies east of the Cascade Crest, which defines its western boundary. The eastern edge of the forest extends into the Okanogan highlands, then south along the Okanogan and Columbia Rivers, and then to the Yakima River valley. Because of this wide geographic range, the forest is very diverse - from the high, glaciated alpine peaks along the Cascade Crest and the numerous mountain ranges extending eastward from the crest, through deep, lush valleys of old growth forest, to the dry and rugged shrub-steppe country at its eastern edge. Elevations range from below 1,000 ft. to over 9,000 ft. Precipitation varies widely - from more than 70-inches along the crest to less than 10-inches at its eastern edge. This of course greatly affects the forest and vegetation types across the area.



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# SEVEN DISTRICTS

## CHELAN

Split by the 55 mile Lake Chelan, the Chelan Ranger District borders the Entiat Ranger District to the south along the Chelan Mountains divide and the Glacier Peak Wilderness Area and the Methow Ranger District to the north as part of the Lake Chelan- Sawtooth Wilderness Area.



Chelan Ranger District offers unique recreational opportunities on Lake Chelan and miles of recreational trails for all ages and experience levels. There are recreation opportunities for mountain bikers, hikers, motorcyclists, backpackers, hunters, fishermen, bird watchers and more. Echo Ridge offers over 30 miles of excellent mountain bike trails just a 20 minute drive from Chelan. Trails range from beginner to advanced, with meandering trails through sagebrush slopes and ponderosa pine forests accompanied by beautiful views of Lake Chelan. In the winter the trails are groomed for cross-country, skate ski and snowshoe opportunities.

## CLE ELUM

The 375,000 acre Cle Elum Ranger District stretches from its western boundary at the crest of the Cascades east to where the forest gives way to the prairies and sage steppe near Ellensburg. From craggy peaks, to rolling hills, dense forests of Douglas fir and western hemlock in the west, open pine forests in the east, meadows and secluded valleys, the district has many diverse personalities. Whether you enjoy the serenity of an alpine lake sunset, wildflowers in spring, vibrant fall colors, or hitting the snowy trails of winter, this is the place you can find it all. With 200 days of sunshine, only 20 inches of rain, and 80 inches of snow, recreation opportunities are endless.

Rich in culture and history, Native Americans have called this land home for over 8,000 years. Fishing the lakes and streams, hunting the forests and gathering berries in the fall, these traditions continue today. European settlers arrived in the area nearly 200 years ago. Trappers, miners, loggers, ranchers and farmers, evidence of all can be found in all areas of the district. Gold was discovered in Swauk Creek in 1873 and is still searched for today. Logging which peaked in the 1970's and early 80's still takes place today, but not at the pace of earlier years.

Recreation opportunities abound here. 400 miles of non-motorized trails, much of which lies within the Alpine Lakes Wilderness, 400 miles of trails open to motorized use, 100 miles of groomed snowmobile trails and 21 miles of set track ski trails offer options for all trail users. The Pacific Crest National Scenic Trail is the western boundary of the district. South of I-90, it passes through dense forests and old clear cuts that offer expansive views and berry patches in the fall. North of I-90, hikers are treated to one of the most rugged and scenic segments of the trail. Three large reservoirs, each with developed boat ramps offer water sports in spring and early summer. The district has large developed campgrounds, small more primitive campgrounds and secluded dispersed camping areas.



An abundance of wildlife inhabit the district. Mule deer, elk, black bear, cougar, bobcat, coyote, wolves, and mountain goat are some of the bigger critters you might see. Snow shoe hare, raccoon, pine marten, squirrels, chipmunks, and wolverine also call the district home. A wide variety of birds will keep the most avid birder busy. Great horned, spotted and barred owl, red tail hawk, bald and golden eagle, ruffed and blue grouse, mountain chickadee, gray jay, Clark's nutcracker, stellar jay, crow and raven are but a few.

## ENTIAT

The 272,101 acre Entiat Ranger District extends from the Chelan Mountains in the northeast to the Entiat Mountains in the west with the Entiat River Valley running down the middle and the Glacier Peak Wilderness Area standing majestically to the north. Elevations range between 800 to more than 9000 feet. The landscape is dominated by wildfire ecology and is an excellent place to observe examples of forest restoration after large wildfires have occurred.



High-quality recreation of all types exists in the Entiat Ranger District. The broad range of campgrounds and hiking trails provide access into relatively undeveloped zones of forest that are excellent for hiking and fishing in solitude. Deep in the Glacier Peak Wilderness Area at the end of the Entiat River Trail, you can observe the last remaining remnants of the once massive Entiat Glacier. The glacier still clings to the impressive Entiat headwall, home to three 9000' peaks: Mt. Maude, Seven Finger Jack and Mt. Fernow. The district is also home to one of the nation's most extensive multiple-use trail systems. This beloved trail system parallels lush alpine meadows, passes with pristine mountain lakes and climbs to lofty summits with breathtaking views of the wild North Cascade Range. Much of this trail system can be traveled by off-road motorcycles, mountain bikes, horses or hiking.

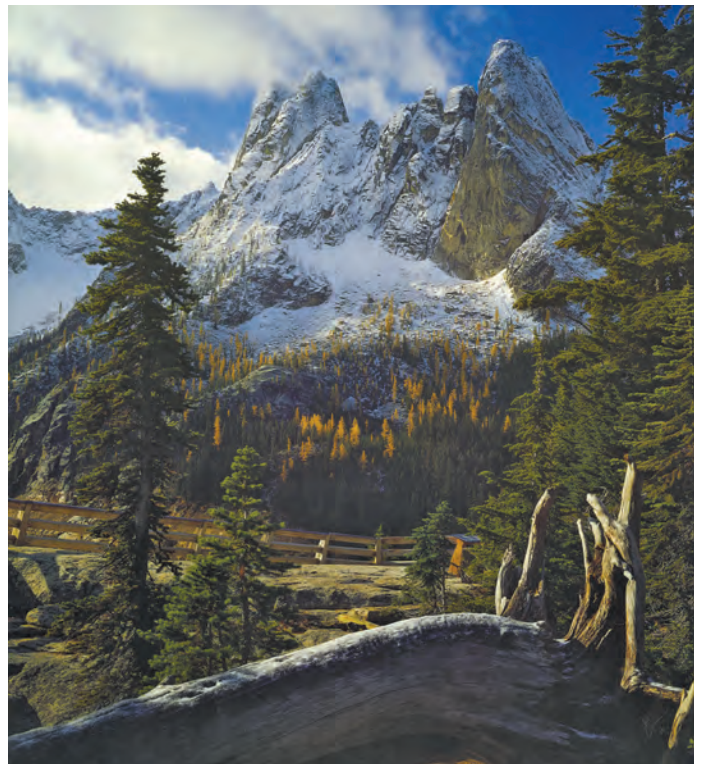
The Entiat Ranger District is an amazing place for viewing a wide variety of wildlife. This includes elusive species like wolverine, moose, deer, bear, eagles, salmon and steelhead that frequent the district.

## METHOW VALLEY

With its big valleys, open wildspaces, high ridges and beautiful rivers, the Methow Valley Ranger District's 1.3 million acres extends from near the town of Twisp to the crest of the Cascade Mountains in the Pasayten Wilderness. Alpine lakes are a hideaway for anglers while diverse wilderness awaits explorers of all types. There are basalt formations for rock climbers and winter sports opportunities abound.

The highest peak is North Gardner Mountain at over 8900 feet, with many other peaks above 7000 feet. The Methow Ranger District offers hundreds of miles of trails with a hiking season that averages from June through October. Some trails are open to motorcycles and mountain bikes, however, no mechanized vehicles are permitted within Pasayten or Lake Chelan Sawtooth Wilderness Areas.

During summer months, the North Cascades Scenic Highway 20 provides a direct link to the west side of Washington State, enticing both motorized and non motorized travelers to make the scenic trip. An Overlook at Washington Pass gives a spectacular view of massive Liberty Bell Mountain (7790 feet in elevation) and Early Winters Spires. The highway is closed during the winter months.



## NACHES

The Naches Ranger District encompasses approximately 518,000 acres and extends from the near the town of Naches to the crest of the Cascades. Visitors enjoy flowers, wildlife and a wide variety of recreational activities during all seasons on the district which features views of Mount Rainier, Mount Aix and Bear Creek Mountain and provides access to the Pacific Crest Trail.



Hikers, horseback riders, and cross country skiers have 380 miles of non-motorized wilderness trails on the William O. Douglas, Norse Peak and Goat Rocks Wilderness areas which are shared with Mount Baker-Snoqualmie and Gifford Pinchot National Forests.

There are also plenty of opportunities for snowmobiling, boating, swimming, fishing, camping, hunting and riding with over 110 miles of 4x4 trails and 140 miles of single track trails. People enjoy spending a day or a weekend in the mountains at Boulder Cave and Clear Lake day use sites or 25 plus campgrounds. There are several lakes on the district including the prominent Rimrock Reservoir where windsurfers and sailboats take advantage of the lake's length and wind currents from the west.

## TONASKET

The Tonasket Ranger District's 415,000 acre landscape covers five distinct blocks, or areas, across the eastern half of Okanogan County; bordered on the north by Canada and the southwest by the Colville Indian Reservation. The largest contiguous block is west of the Okanogan River; it includes the northeast corner of the Pasayten Wilderness and shares a boundary with the Methow Valley Ranger District. The Buckhorn, Mount Hull, Bonaparte and Aeneas blocks make up the east side of the District.

Grass and shrubs dot the lower elevations, climbing to beautiful ponderosa pine forests at mid-elevations, then Douglas-fir/western larch, and the subalpine and alpine forest at elevations above 6000 feet.

More than 180 miles of trail are maintained for hikers, horseback riders and motorized recreationists. There are several developed campgrounds as well as a lot of opportunity for dispersed recreation.



With fairly long travel distances from major northwest population centers, the District is considered a bit of a well kept secret by those who make the journey. Whether it is June when the colorful hillsides of Horseshoe Basin are a riot of color with wildflowers in bloom or January when the glittering snow at Highlands snow park sparkles in the sunshine, the National Forest lands managed by Tonasket Ranger District offer a chance to stop, take a deep breath and feast on nature's glory.

## WENATCHEE RIVER

The Wenatchee River Ranger District headquartered in Leavenworth is one of the largest districts covering 729,000 acres from the crest of Stevens Pass to Mission Ridge. In the lee of the Cascade Range, average annual precipitation varies from 80 inches near the crest to 10 inches near the Columbia River.



The District has very diverse habitats, from large patches of contiguous old growth western hemlock and pine forests; remote high alpine wilderness; lakes, rivers and wetlands. Most of the country is steep with snow on the ground in the high country for up to 6 or more months out of the year. Over half the district is designated as Wilderness and is host to the world famous Enchantments and to some of the best climbing, hiking, fishing, winter sports and camping in the nation.

The District has a long history of mining, grazing and timber production although our focus is on restoration today. Many minerals including gold, serpentine, granite and silver have created a robust mining legend. Trinity Mine was once the highest source of copper in the northwest, soapstone continues to be highly sought, and a wealth of minerals is located in “them thar hills.” The Blewett Mining District still has active claims and its own legends of gold.

## OUR DISTRICT RANGERS



Pictured from left to right: Naches District Ranger Kelly Lawrence, Methow Valley District Ranger Mike Liu, Wenatchee River District Ranger Jeff Rivera, Cle Elum District Ranger Michelle Capp, Tonasket District Ranger Matt Reidy, Chelan District Ranger Kari Grover-Wier, and Acting Entiat District Ranger Randy Whitehall

Each Ranger District is managed by a District Ranger who is responsible for developing, organizing, and implementing long-range planning and short-range action plans. They maintain cooperative relationships with local, county, and state representatives, civic groups, permittees, general public, and industry. It's essential that District Rangers work closely with the people we serve so they can understand local perspectives on how the Forest should be managed and hear about issues that are important to the community.



## AQUATIC HABITAT RESTORATION

In cooperation with partners, the Wenatchee River Ranger District completed an aquatic habitat restoration project in Nason Creek, a tributary to the Wenatchee River. This project will aid in the recovery of spring Chinook salmon, steelhead and bull trout that are listed under the Federal Endangered Species Act.

There were three elements to the restoration project: to construct a large wood jam in order to enhance habitat cover and complexity and to restore natural channel stability; to create off-channel habitat that is connected via surface and groundwater to Nason Creek and that is accessible to fish throughout the year by excavating within existing channel scar depressions in the floodplain; and to place large woody material (LWM) along the channel edges in complexes of approximately 5 to 10 logs to mimic natural fall of woody material and small LW accumulations. All disturbed sites were replanted with native species.

The project was developed using a watershed approach in coordination with the Bureau of Reclamation, Chelan County Natural Resource Dept, and the Yakama Nation. Funding was provided by the Yakama Nation through the Yakama Nation Fish Accords with Bonneville Power Administration.



*Photo: Meander/ Transmission bend Large Wood Material (LWM). The large wood jam consists of approximately 100 pieces of wood built into an interlocked matrix. The structure was partially excavated into the riverbank along the channel edge with LWM extending into the water.*

## LITTLE RATTLESNAKE CREEK RESTORATION

Little Rattlesnake Creek supports several salmonid species including listed steelhead and bull trout. It also provides habitat for redband and cutthroat trout and Chinook salmon. Adjacent to the creek is Forest Service Road (FSR) 1501 which sustained significant damage during flooding in spring of 2009 and again in 2011. Stream bank damage occurred in multiple locations along the road and the road itself was significantly damaged. Damage from those events was consistent with other damage that has been occurring in that drainage along FSR 1501 for decades and resulted in undesirable impacts to watershed and aquatic habitat function, water quality, and fisheries.

The land in this area is managed by the Washington State Department of Natural Resources (DNR), but the road is managed by the Naches Ranger District. A high level of coordination and cooperation occurs here between fisheries, engineering, and hydrology specialists on the National Forest and Washington Departments of Natural Resources and Fish and Wildlife, Yakama Nation, NOAA Fisheries, US Fish and Wildlife Service and Mid-Columbia Fisheries Enhancement Group. The partnership's consensus was to decommission five miles of road as a measure to restore watershed and aquatic resources.

The project objectives were to implement floodplain and streambank restoration along five miles of Little Rattlesnake Creek. The project focused on reducing road density in key areas where roads cause undesired impairment to aquatic ecosystem function, reclaiming 32 acres of floodplain by decommissioning the road coupled with strategic placement of woody material, and improving water quality and geomorphic function by increasing stream shading, decreasing road related sediment input, and decreasing the artificial increase in drainage network associated with FSR 1501.

Total Project Cost was \$732,500.



## CLE ELUM RANGER DISTRICT OUTDOOR ENVIRONMENTAL EDUCATION DAY CAMP

For five days every May the Cle Elum Ranger District in cooperation with Washington State Parks welcomes 350 4th graders from area schools to Lake Easton State Park where they spend the day learning how not be an Impact Monster. As many as 200 students come from underserved communities, some seeing their National Forest for the first time.

At the Botany station the kids learn about plants native to the east slopes of the Cascades . A short lecture is followed by hands on field exploration. Each student is given pencil and paper to draw an image of their favorite plant.



At the Fish Station, students visit “Blue Tarp River” where a fisheries biologist explains the importance of clean, cool water. The students then look at and discuss periwinkles, crawfish, sculpin and other aquatic species found in the nearby Yakima River.

Members of the Cle Elum Ranger District Wildland Fire Crew build campfires and explain the importance of fire in the landscape. The kids learn about the Fire Triangle, how to choose a safe location for a campfire and how to extinguish it. They then get hands on experience by spraying water from the crew’s engine.

The kids learn how to visit the forest and Leave No Trace. Staying on the trail, not cutting switchbacks, letting wild animals be wild and how to properly dispose of waste are some of the topics discussed.

At the Native American station, students learn about traditional foods, tools and culture. The discussion explains how Native Americans collected all that was

needed to live comfortably from the natural world while having minimal impact on the ecosystem.

After visiting all five stations the students have lunch around a campfire and toast marshmallows. To close the day, the students participate in The Impact Monster skit. Students are transformed into trees, fish, flowers, rocks, a snag, a snake and a deer. The Impact Monster arrives and wreaks havoc in the forest by chopping down trees snags, picking flowers, sickening fish while bathing in the lake, killing snakes, marring rocks with fire and feeding deer. Students then critique the skit by pointing out what the Impact Monster did wrong based on what they learned earlier in the day.

For over 30 years 4th graders have participated in this camp. Many parents of students participating now were once participants themselves. The weather isn’t always great, some days it pours rain but the smiles always warm the day. The kids always ask if they can come back again.



## VOLUNTEERS STAFF RED TOP LOOKOUT

Like many lookouts, Red Top once fell into a state of disrepair after aircraft and satellites began to be used for spotting wildfires. In 1996 and 1997 a group of retired individuals, many of whom had worked at lookouts in their early years took on the task of restoring Red Top. It was listed on the National Historic Lookout Register in August of 1997.

Since that time the lookout has been staffed during fire season with volunteers. The program is very popular, leaving few vacant days each summer. On the occasional day when the lookout is vacant it may be staffed by US Forest Service Employees.

Training is required and is provided by employees of the Cle Elum Ranger District. On the first Saturday in June those wishing to staff the lookout spend four hours learning about radio communication, map and compass, smoke reporting, the Osborne Fire Finder as well as the Job Hazard Analysis. The expectations of the US Forest Service are that each volunteer will represent the US Forest Service and its mission in a positive manner. Volunteers are required to attend the training only one time, but many attend yearly as a refresher.

In 2015 33 volunteers staffed the lookout for over 60 days. The program is very popular with many volunteers participating in the program for 15 years or more. Time spent at the lookout can be as little as a day or up to three consecutive days.

## TENS OF THOUSANDS OF LOCALLY ADAPTED NATIVE PLANTS REVEGETATE I-90 CONSTRUCTION SITES

In line with the scale and magnitude of the billion dollar I-90 project is the gargantuan task of revegetating construction zones with thousands of plants and trees. National Forest Policy directs us to use locally-adapted native species for plant restoration and for a project of this size that is a major undertaking.



This task falls to a team of botanists, landscape architects and nurseries working together. Forest Service botanists collaborate with WSDOT landscape architects to determine the right plants for each location, harvest the plants and then contract with growers and nurseries to increase native grass and forb species, and propagate native

sedges, rushes, trees and shrubs; all from seed and cuttings that had to be collected by hand over a period of 5 years. Approximately 70,000 shrubs and trees were planted this fall for the first phase of the project.

The revegetation effort was initiated about five years ago and represents a highly innovative, hugely successful collaborative effort that will be visible to thousands of passing motorists on a monthly basis. The I-90 project also includes Washington's first wildlife overcrossing with construction initiated in 2015.



## RECREATION SPECIAL USES

The Forest provides a place for recreational activities and as well as an array of specific lands uses. There are currently 948 lands permits issued on the Forest that include uses such as water transmission lines, power lines, irrigation ditches, fences, stockpile sites, weather stations and research studies, to name a few.

There are 32 designated communication sites on the Forest with 96 permits issued for a variety of uses. These communication uses include cellular, radio broadcast, emergency services, amateur radio and resource monitoring, amongst others. With growing demand for better communication coverage, the Forest was busy in 2015 processing amendments for upgraded communication facilities, re-issuing expired permits, and issuing permits for new facilities. We also continue to work towards updating all of our communications site management plans, as identified in the 2010 audit of Special Uses. Since 2012, we have completed 16 of these plans.

We currently have over 700 permits for recreation purposes. These uses include, but not limited to, outfitting and guiding, including white river rafters; recreation events; skiing; organizational camps; and recreation residences (cabins).

The Forest has a total of 675 recreation residence permits for the recreational use of privately owned cabins that are located within the Tonasket, Methow Valley, Chelan, Entiat, Wenatchee River, Cle Elum, and Naches Ranger Districts. Of the 675 permits, the Naches Ranger District has the vast majority of the permitted use.

2015 proved to be a successful year in regards to the interim implementation of the new Cabin Fee Act (CFA) which passed into legislation on December 19, 2014. The CFA repealed the former law, the Cabin user Fee Fairness Act of 2000 (CUFFA) which governed the fees through an appraisal process. The CFA established a new method for determining special use fees for the recreation residence program nationally and provides a market based long-term dependable fee structure. The new fee method consists of an 11 fee Tier assignment process applicable to each cabin owner, beginning with Tier 1 - \$650.00 use fee, upwards to Tier 11 - \$5,650 use fee.

## RECREATION

Tonasket Ranger District was successful in competing for outside funding to maintain, improve and, in some cases, replace developed recreation facilities. The District successfully competed for grant funding through the Washington State Recreation and Conservation Office (RCO). The two year grant will allow for better maintenance and improved operation at our developed campground facilities. In addition, the District successfully competed for funds from Title II of the Secure Rural Schools and Community Self Determination Act to replace a toilet facility at Cottonwood Campground and to replace the North Fork Salmon Creek Bridge Abutment on the Clark Ridge/Tiffany Lake Trails. These efforts are integral in achieving our goals of sustaining our forests and delivering benefits to the public by creating more positive and safe experiences for recreationalists.



2.5 miles of trail constructed in partnership with Evergreen Mountain Bike Alliance on the Wenatchee River Ranger District.

On the Naches Ranger District, the popular Boulder Cave Day Use Site reopened with improvements including a new water system, new benches along the river trail, and expanded parking.

## GRAZING

Bannon, Aeneas, Revis and Tunk (BART) Grazing Allotments permit cattle grazing on National Forest Lands southeast of Tonasket. As part of a rotating schedule, effects of grazing under allotment management plans are analyzed by an interdisciplinary team of specialists. The four allotments were grouped together under one analysis effort that began in 2012. With the environmental impact statement complete, continued livestock grazing has been authorized on three of the four allotments (Revis allotment has not been permitted for the past eight years) consistent with Forest Plan Standards and Guidelines while implementing specific resource improvement measures.





## FOREST HEALTH RESTORATION

Analysis was completed and a decision was signed in July to move forward with the Annie Restoration Project covering 5,200 acres of National Forest Land about 17 miles east of Tonasket. Analysis like this takes a significant investment of time from many different kinds of specialists who work in an interdisciplinary effort to study the current condition on the landscape, determine what restoration efforts may be needed to move the forest toward a more resilient and sustainable condition and then to analyze the effects of those proposed restoration activities. The team worked collaboratively with interested citizens, agencies and Tribal Leaders to determine objectives and what treatment activities were needed.

Analysis of the current condition found an increased probability for insect and disease outbreaks and reduced the ability for successful fire suppression, which threatened nearby private and State lands. This information was used to determine the objectives which included:

Restore the structure, composition, and pattern of vegetation, and allow natural processes to function that will provide resilience to uncharacteristic wildfire and climate change as well as provide sustainable wildlife habitat.

Protect life and personal property of the residents of the Upper Bonaparte drainage by modifying the structure and pattern of dry forest stands.

Improve, enhance, and accelerate the development of habitat for lynx and their prey.

Reduce the impacts of roads on water quality, water quantity, flow regimes, noxious weed spread, and on wildlife.

To accomplish these objectives, restoration activities will include thinning, about 1,700 acres of timber harvest and prescribed burning as well as fencing to protect aspen patches and wet meadows, and changes to the road system. Treatment will reduce overcrowding, remove diseased trees and create openings needed for trees to grow. Thinning would remove small trees to reduce opportunities for fire to climb into the overstory and reduce the competition for sunlight and nutrients; expediting the growth of desired tree species. Prescribed burning would be used to improve the effectiveness of treatments and to reduce ground fuels. Like most restoration projects, there are multiple phases of implementation. After being sold at auction in September, thinning began in February of 2016.



## CHELAN RIDGE RAPTOR MIGRATION 2015 – YEAR 19

Each year, the Forest hosts the Hawk Migration Festival. This well-attended event is part of the Chelan Ridge Fall Raptor Migration Project, which since 1997 has stationed volunteer biologists on Chelan Ridge, one of ten HawkWatch sites in the U.S., where



migrating raptors are counted from August through October. The information gathered helps determine long-term population trends, assess the health and fitness of individual birds (which demonstrates the condition of the habitat through which they have flown), and provides indications of the effects of climate change on the avian community. Despite fire on the doorstep of the Chelan Ridge, the HawkWatch site was open almost the entire season. This year, wildlife biologist Kent Woodruff was presented with HawkWatch International's Lifetime Achievement Award for his outstanding service, passion, and life-long dedication. Kent has been working with Hawkwatch International for 19 years at the Chelan Ridge Raptor Migration site.

## METHOW BEAVER PROJECT – YEAR 6

The Western Division of the American Fisheries Society selected the Methow Beaver Project on the Methow Valley Ranger District of the Okanogan-Wenatchee National Forest to receive the 2015 Riparian Challenge Award for excellence in riparian and watershed habitat management. The project restores active beaver colonies to streams in the Methow River sub-basin, and thereby returns key watershed processes that have been missing in some drainages for as long as 200 years. Beaver dams increase water storage, improve water quality by reducing stream temperatures, increase nutrient availability in streams, and increase stream function by reconnecting floodplains.

The Methow basin provides significant spawning areas for Spring Chinook salmon and also supports spawning steelhead, cutthroat trout, and bull trout, and maybe still a few critically endangered Pacific lamprey. Water stored behind beaver dams in tributaries and delivered later in the season, along with the cooler ground water arising from beneath beaver ponds are important habitat improvements for aquatic species and critical water for people.

The project team meets with willing landowners who have encounters with beavers. In some cases, as an alternative to lethal removal, they live trap and move unwanted beavers to a holding facility at the USFWS National Fish Hatchery, where the beavers are evaluated, weighed and measured, gender determined, and grouped together with other beavers to then be released, usually in river tributaries.



*A well maintained beaver pond at South Fork Beaver Meadows*

Education about the benefits of beavers for salmon habitat and adapting to climate change is a core project activity. Another ongoing project component is conducting a highly rigorous study of the temperature and stream flow improvements realized with beaver restoration.

A wide array of partners across sectors are working collaboratively on this project, including the Methow Salmon Recovery Foundation; U.S. Forest Service; Washington Departments of Fish and Wildlife, Natural Resources, and Ecology; Methow Conservancy; Yakama Nation; Confederated Tribes of the Colville Reservation; Wildlife Conservation Society; Methow Watershed Council; Pacific Biodiversity Institute; Ecotrust; U.S. Bureau of

Reclamation; Salmon Recovery Funding Board; Douglas County and Grant County Public Utility Districts; Bonneville Environmental Foundation; National Forest Foundation; Seattle City Light; U.S. Fish and Wildlife Service; Woodsmith Watershed Consulting; and more than 100 community volunteers.



*A brand new beaver pond in the lower Chewuch.*

In 2015 the project team relocated 44 beavers to 17 sites and have so far seen 5 new well established sites to add to the existing list of sites in the Methow watershed. They hosted 65 volunteers who contributed 1751 hours during which they cleaned, carried, fed, trapped, educated, monitored, and learned alongside project staff. They also hosted an intern from England, Izzie Tween, as part of an International Knowledge Exchange funded by the Methow Salmon Recovery Foundation. While she was here, Izzie measured 62 beaver ponds at establishment sites and recorded an amazing 5.24 million gallons of water being stored there. Beneath these ponds is an estimated additional 38.7 million gallons of groundwater.

The team made presentations to seven groups including five workshops in four states, the annual State of the Beaver Conference, and the Salmon Recovery Conference and hosted a Techniques Workshop and Open House for 26 participants from 6 states. They contributed a chapter to the new Beaver Restoration Guide. That's more than enough water stored in these beaver complexes to supply all the household water use for all the residents of the nearby community of Twisp for a year.



## TREASURED LANDSCAPE — MAJESTIC METHOW

A suite of volunteer projects in the National Forest Foundation's Treasured Landscapes: Majestic Methow campaign were completed in 2015.

Dozens of volunteers from the local area, and as far away as Seattle, joined forces to construct the new more sustainable trail to a newly popular climbing area known as The Matrix. "It was remarkable to see the climbing community show up in such force for this event and build an excellent trail in just a few hours," said Natalie Kuehler, the National Forest Foundation Methow Valley staff member. "The Volunteers built much more than a new trail however, the event was a successful step toward developing a cooperative partnership between local climbers and the Methow Valley Ranger District."

"The success of the Matrix trail construction project is a model of how partnerships can benefit outdoor recreation and reduce resource impacts," said Mike Liu, Methow Valley District Ranger. "I am excited to build on the relationships that were developed during this project."

Matt Perkins, a volunteer and member of the Washington Climbers Coalition and the Access Fund, succinctly summarized the event: "This is a fabulous day for climbing, and for recreation in Washington State."



The National Forest Foundation held their first-ever “Plant-and-Camp” volunteer weekend on National Public Lands Day high in the Cascades on the Forest’s Maple Pass trail. The trail had only been completed in 1993, and already there were large spots that had been entirely denuded by hikers straying off the trail into fragile meadows. The area was, truly, being loved to death. What is worse, the damage was being done to alpine heather communities that, unbeknownst to most people, took as many as 7,000 years to establish themselves. A single user-trail can alter the water flow and, over time, cause the entire community to perish.



Earlier in the year areas had been roped off, free maps and educational brochures were placed at the trailhead, presentations were given about the fragility of heather plants, and trail signs were erected. Then the volunteers arrived to eliminate user trails and jumpstart new growth by planting thousands of plants meticulously grown at a National Park Service greenhouse. At the end of day one, some volunteers hiked back down to

return the next day, while others began setting up their tents in the driving snow to camp overnight. By late afternoon on Sunday they had planted the last plants and blocked off the last user trails. This special project was made possible by a dizzying array of partners working together closely for years. The Moccasin Lake Foundation, REI and the Horizons Foundation provided funding to the NFF for implementation. The National Park Service, paid for much of its work, also donated some of its greenhouse space and horticulturists’ time. The North Cascades Institute dispatched a graduate student to work on this project throughout the past two summers. And the Methow Valley Ranger District made restoration efforts a priority. All this, however, would have led nowhere without the 46 volunteers who participated on this one weekend alone, working a total of nearly 350 hours.



National Forest Foundation work parties were also held at the Forest’s Rainy Pass picnic area, Maple Pass loop, and Blue Lake on the Methow Valley Ranger District. Fueled by breakfast goodies and coffee donated by local businesses, volunteers repaired two bridges, hardened a persistently muddy switchback, brushed out large swaths of trail, and plugged holes in the road and under picnic tables. Volunteers worked to restore and protect fragile riparian and alpine habitats at Blue Lake, one of the Forest’s most popular hiking destinations. Volunteers also repaired a footbridge and installed stakes and ropes to direct hikers on the trail and away from sensitive areas.

## NORTH CASCADES WOLVERINE PROJECT – YEAR 10 (FINAL)

The Methow Valley Ranger District coordinated the field portion of a 10 year wolverine study that was led by the PNW Research Station and included WDFW, Seattle City Light, The Wolverine Foundation, The Seattle Foundation, USFWS, BC Ministry of Environment, and NFF as partners. This is the only wolverine research project conducted in the Pacific portion of their original range and has resulted in important contributions to the little that is known of wolverine ecology. Fourteen different wolverines were trapped and fitted with satellite-based radio collars enabling us to gather data on movements, habitat use, natal denning habitat, and their distribution in the North Cascades.



## SILVICULTURE AND TIMBER

11,200 cords of firewood sold

1.6 MMBF or 3,200 ccf of salvage timber sold (Brimstone sale from Carlton Complex Fire)

1,604 acres of planting seedlings on burned areas

610 acres of site preparation for natural and artificial regeneration

1,290 acres of certification of regeneration (natural and artificial)

38 acres of seed orchard maintenance

## BOTANY/INVASIVES

21,395 acres of Threatened and Endangered Species and Survey & Manage plant inventoried

10 new sensitive plant sites representing 4 taxa documented

2 new Survey & Manage lichen sites and 1 new Survey & Manage fungi site documented

55 Biological Evaluations and environmental analysis documents completed

5,800 acres treated for invasive plants

14,000 acres of weed surveys on roadsides, burned areas, and project areas completed

Each spring a cooperative effort by the Crupina Task Force is geared up to prevent the spread of crupina, an invasive noxious weed, and to eradicate it from the slopes of Lake Chelan, the only known location of crupina in Washington State. Over 250 acres were treated in 2015 with partners including the Chelan County Weed Board, Washington State Department of Agriculture, Chelan County Public Utility Department, Washington State Weed Board, and private landowners.

## WILDLIFE

55,000 acres of wildlife habitat improved

1,383 individuals of 17 species of migrating raptors counted at Chelan Ridge and banded 360

9 falcon aeries and 6 bald eagle nests monitored

138 Townsend's big-eared bats counted in the largest and longest recorded active hibernacula in WA

17 miles of Wenatchee River surveyed with 20 osprey nests documented

Partnered with the Ruffed Grouse Society to build a buck-n-pole fence to protect unique habitat in a cattle allotment on the Naches Ranger District

Continued partnering with the Yakama Nation and University of Idaho on white-headed woodpecker monitoring





Volunteers from the Columbia Basin Job Corps Center and a Seattle church group helped the Entiat Ranger District improve wildlife habitat impacted by wildfires for National Public Lands Day. Led by Wildlife Technician Haley Watson, volunteers removed barbed wire fencing damaged by the 2012 Byrd Fire to allow for safe movement and increased survival for mule deer and other wildlife. The old burned barbed wire also posed safety hazards to recreationists.

## HERITAGE

Worked with Forest Fire Lookout Association to restore a lookout tower that is listed on the National Historic Lookout Register. Over 500 hours were donated by volunteers who repaired the roof, shutters, windows, flooring, siding, doors and painted the interior.

## GRANTS AND AGREEMENTS

27 new agreements executed and 76 modified

37 cooperators contributed \$3,916,197

The largest influx of funds is the ongoing partnership with Washington Department of Transportation for the I-90 Snoqualmie Pass East Reforestation Project.

272 additional agreements are still in active status from prior years with a total contribution from cooperators of \$19,086,722 (includes cash, non-cash, and in-kind contributions)

## PARTNERS PARTICIPATED IN STEWARDSHIP AGREEMENT WORKSHOP

The Okanogan-Wenatchee and Colville National Forests held a joint workshop to explain how to use stewardship agreements to increase the pace and scale of restoration in eastern Washington. Specialists and partners on the Deschutes and Fremont-Winema National Forests also shared their first-hand experiences with attendees including employees from five National Forests in R6, Yakama Nation, Tapash Sustainable Forest Collaborative, North Central Washington Forest Health Collaborative, Northeast Washington Forestry Coalition, Trout Unlimited, The Nature Conservancy, American Forests Resource Council, Cascadia Conservation District, Chelan County Natural Resource Department, Chelan Douglas Land Trust, and representatives from industry and county commissioners.



## FIRE

126 total fires on Okanogan-Wenatchee National Forest lands

76 fires caused by lightning, 50 fires caused by humans

174,779 total acres burned on Okanogan-Wenatchee National Forest lands

101 responses to fires on cooperator lands

150,456 total acres burned on cooperator land responses

284 responses to fires on all other National Forest lands

526,482 total acres burned on all other National Forest lands

407 responses to wildfire by North Cascades Smokejumpers

72 responses to wildfire by Wenatchee Valley Rapellers

32 Incident Management Teams hosted

319 fire personnel

2,853,649 gallons (650 loads) of retardant delivered from Moses Lake Air Tanker Base to 83 wildfires

26,591 acres of fuels treatments



2015 was a long and severe fire season for the Okanogan-Wenatchee National Forest. We will grieve the tragic loss of firefighters Rick Wheeler, Andrew Zajac, and Tom Zbyszewski and reflect upon the sheer magnitude of wildfire across North Central Washington for years to come. Wildfires burned more than a million acres in Washington state in 2015; that's more than burned in the last five years combined. And yet, given the conditions, the losses could have been much higher if not for the coordination between the many organizations involved, strong commitment of firefighters and support staff, and past forest health restoration treatments.

Excellent coordination with our partner organizations at the local, state, federal, and international level were critical to success. Our cooperative agreements with the British Columbia Wildfire Service, Washington State Department

of Natural Resources, U.S. Bureau of Land Management, the Colville Agency, local fire districts and sheriff departments smoothed the way to rapidly shift resources to fight fires that crossed jurisdictions. We were also assisted by Washington National Guard members and soldiers from Joint Base Lewis-McChord serving as firefighters. When resources were at their lowest nationally, firefighters from Australia and New Zealand arrived to fill key leadership roles.



Successful fire suppression efforts in many areas were facilitated by previous forest health restoration projects and fuel treatments. Firefighters and communities saw firsthand the impact forest thinning and prescribed fire can have on the spread of wildfires.

On the Tonasket Ranger District, past restoration treatments provided effective locations to defend against the fast moving North Star and Tunk Block Fires by increasing firefighter safety and eliminating preparation time for burnout operations. This was critical in a season where fires were spotting up to five miles out as happened in mid-August with the North Star Fire. On the Methow Valley Ranger District, crews were able to safely construct direct fireline in the Little Bridge Creek Area of the Twisp River Fire because similar treatments had helped to lower fire intensity, which also reduced tree mortality and soil heating and helped limit overall fire growth in the area. Crews also had improved options for safe and effective firefighting in the Squaw Creek and McFarland Creek area within the Black Canyon Fire. They used recent treatment areas as safe anchor points for suppression and were successful with burnout operations because prior fuel treatments reduced fire intensity. This success

help reduce the spread of the wildfires onto private, State, and National Forest lands. The spread of the Chelan Complex and First Creek Fires on the Chelan Ranger District was limited in areas where previous thinning and underburning occurred. Treated areas on the Naches Ranger District aided firefighter efforts and helped reduce the intensity of the Meeks Table Fire, allowing a high number of overstory trees to survive.

## REDUCING HAZARDOUS FUELS ON THE METHOW VALLEY RANGER DISTRICT

Nearly 2,400 acres of hazard fuel reduction work will take place over two years in the upper Methow River Drainage, west of Winthrop, Washington. The contracted work is part of the Lost Driveway project and includes thinning and handpiling in the wildland urban interface on National Forest lands adjacent to private property. The project is the culmination of years of collaboration between individual landowners, homeowner's associations, local Firewise communities, Okanogan County Conservation District, the state Department of Natural Resources, the National Forest Foundation, and the Forest Service.



*Previously thinned and prescribed burn unit survived the 2015 wildfire.*

In the summer of 2015, crews began thinning understory trees to reduce the likelihood of crown fires developing. Prescribed burning is planned to remove brush piles and accumulated surface fuels. Debris that is not hand-piled will be available for firewood collection by the public. The work on



*Previously thinned and prescribed burn unit survived 2012 wildfire.*

National Forest lands will complement the efforts to reduce wildfire hazards on adjacent private lands.

“Several neighboring landowners have used the Firewise program to reduce risk on their own lands when wildland fire comes through. They have invested time, labor, and funds to adapt their landscape to wildfire,” said Meg Trebon, Assistant Fire Management Officer for Fuels. “These landowners recognize that fire in our area is not a matter of if but when, and they have changed their landscapes accordingly. We’re looking forward to doing the same on adjacent federal lands.”

Historically, fire played an essential role in shaping the vegetation pattern on this landscape. The many decades of fire suppression has led to stands of trees that are thick, overgrown, and often dominated by less fire tolerant species. Thinning forests and reducing surface fuels are important to reducing the impacts of wildfires and increasing the chances that fire can be suppressed.

The project is located within The Majestic Methow Treasured Landscape, one of 14 landscapes nation-wide that were selected by the National Forest Foundation for partnering with the Forest Service and local partners in restoration efforts. The Treasured Landscape campaign supports a comprehensive restoration and community engagement strategy, including fish and wildlife habitat restoration, trail restoration and maintenance to support sustainable recreational use, forest restoration including fuels reduction, and the removal of invasive plants.

## TAPASH COLLABORATIVE FOREST LANDSCAPE RESTORATION PROGRAM

Green Tons of Biomass Removed	33
Acres of Fuels Treated	2,181
Miles of Road Decommissioned	16
Acres of Range vegetation Improved	7,028
Acres Brush Disposal	346
Timber Volume Harvested (CCF)	20,207
Timber Volume Sold	2,371



## WENATCHEE RIVER SALMON FESTIVAL

The Wenatchee River Salmon Festival is a three-day natural resource education event held each fall to celebrate the return of the wild salmon to the Wenatchee River. The Festival is held on the grounds of the Leavenworth National Fish Hatchery, located at the mouth of the scenic Icicle Canyon near Leavenworth, Washington. The Okanogan-Wenatchee National Forest co-hosts the festival with the U.S. Fish & Wildlife and partners with numerous other partners and tribal members.

Not only did the festival celebrate its 25th anniversary, it was the 75th year of the Leavenworth Fisheries Complex. There was plenty of Cascade Mountain sunshine, historical exhibits, hands-on activities, education, entertainment and outdoor recreation for the audience of over 7,000 people.

On school daze (Thursday & Friday) 18 school districts participated in the event which included 29 schools, 78 individual classrooms and over 245



classes taught, that translates into over 3,000 school children in two days (daze). Saturday is family day and over 4,000 visitors came to the free event.

The true spirit of Salmon Fest continues to be making strong outdoor family connection with real-life nature experiences. This is achieved through interactive learning, recreational experiences, field exploration and natural resource programs. An extensive line-up of activities and entertainment promotes “edutainment” - a combination of education and entertainment. There’s a Native American Tribal Village plus an amazing assortment of activities designed around natural resources.

Here are some fishy facts:

Over 400 volunteers assist with the festival.

Salmon Fest’s curriculum is now the North Central Washington pilot project for the new Washington State STEM educational requirements.

33 new teachers attended the Teacher’s Workshop to learn how to use Salmon Fest’s curriculum in their classrooms.

12 Tribes participated in the Native American Village

We have an amazing safety record including development of a water safety plan that is a model for the Wenatchee School District.

Almost 1000 entries were received for the poster contest (open to third graders only)

An annual \$1500 scholarship was awarded to graduating senior pursuing a natural resource degree.

The festival is supported by the local Chamber of Commerce and recognized for the positive economic impact to the community.





# **Okanogan-Wenatchee National Forest**