

Salmon Recovery Grants Awarded



Asotin County

Asotin County Conservation District

Grant Awarded: \$150,110

Monitoring Salmon Recovery Progress in the Asotin Creek Watershed

The Asotin County Conservation District will use this grant to support ongoing monitoring in the Asotin Creek watershed. The monitoring project was started in 2008 and is expected to run until 2019. The grant will support juvenile steelhead tagging and recapture surveys, replacement of damaged equipment, and habitat monitoring in three tributaries of Asotin Creek. The monitoring is used to assess the effectiveness of placing large woody materials in streams and along banks to increase the survival of young salmon in Asotin Creek. Crews will monitor 12 sites in Charley Creek, North Fork Asotin Creek, and South Fork Asotin Creek. All of the data collected will be made available online. The Asotin watershed is home to Snake River steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Asotin County Conservation District will contribute \$26,890 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#) or visit www.snakeriverboard.org. (17-1304)

Chelan County

Cascade Columbia Fisheries Enhancement Group

Grant Awarded: \$67,002

Designing Fixes for Fish Barriers on Minnow and Brush Creeks

The Cascade Columbia Fisheries Enhancement Group will use this grant to design corrections of four fish passage barrier culverts in Minnow and Brush Creeks, two tributaries to the Chiwawa River. A culvert is a structure, often a large pipe, which carries a stream under a road. The river is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead, which is a species listed as threatened with extinction. The Cascade Columbia Fisheries Enhancement Group will contribute \$50,000 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1231)

Cascade Columbia Fisheries Enhancement Group **Improving Fish Passage in Lower Derby Creek**

Grant Awarded: \$32,000

The Cascade Columbia Fisheries Enhancement Group will use this grant to remove the lowermost fish passage barrier culvert on Derby Creek, a tributary to the Wenatchee River, and replace it with a bridge. A culvert is a structure, often a large pipe, which carries a stream under a road. Derby Creek has experienced many impacts commonly found along streams crossing private property. Despite irrigation withdraws, reduced shoreline plants, multiple fish passage barriers, and likely more sediment from logging and road building, Derby Creek is still home to

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steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Cascade Columbia Fisheries Enhancement Group will contribute \$148,000 in local and federal grants. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1228)

Chelan County

Grant Awarded: \$55,992

Assessing Cold Spots in the Wenatchee and Entiat River Basins

The Chelan County Natural Resources Department will use this grant to locate cold spots in the Wenatchee and Entiat River basins and identify restoration projects to protect these areas. The County will use available temperature data and models to streamline fieldwork, which will include tributary monitoring, ground-based temperature profiles, and cold spot checking. The County also will convert some data into information that can be mapped as well as fly drones in some reaches. The end result will be a report and interactive online portal that displays location and quality of cold spots, and prioritized actions to increase function and capacity of these areas. The river basins are used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead, which is a species listed as threatened with extinction. Chelan County will contribute \$13,998. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1241)

Chelan County

Grant Awarded: \$238,964

Buying Wenatchee River Watershed Data

The Chelan County Natural Resources Department will use this grant to buy light detection and ranging (LiDAR) data for watersheds that contain at-risk salmon in the Wenatchee River basin. LiDAR is a remote sensing method that captures the earth's surface and can provide a more accurate picture of the ground than aerial photographs or topographic maps. LiDAR data will be used to document watershed conditions such as the location of roads and streams, and characterize shoreline and forest vegetation. Most restoration to-date has focused on work in the rivers. This project hopes to broaden that scope by allowing practitioners to look both upstream and upland to identify projects that will restore key watershed processes and functions. The Wenatchee River is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. Chelan County will contribute \$118,760 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1203)

Chelan County

Grant Awarded: \$217,182

Decommissioning Roads along Nason Creek

The Chelan County Natural Resources Department will use this grant to decommission more than 6 miles of U.S. Forest Service roads and design additional road removal projects in the Nason Creek watershed. Generally when a road is decommissioned, most of the structure is

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removed and the land returned to a natural state. Decommission roads along streams usually means that less sediment will sluff off the road and enter the stream, resulting in cleaner water. Nason Creek is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead, which is a species listed as threatened with extinction. Chelan County will contribute \$38,500 from a state grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1242)

Chelan County **Grant Awarded: \$148,165** **Designing the Restoration of Nason Creek at Kahler Reach**

The Chelan County Natural Resources Department will use this grant to complete preliminary designs and permitting for a restoration project at the Kahler Reach in Nason Creek. The reach suffers from denuded shorelines, water that is too warm, limited variation in habitat types, too few side channels, and roads that shed too much sediment into the creek, all of which reduce the quality of habitat for salmon. The creek is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead, which is a species listed as threatened with extinction. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1243)

Trout Unlimited, Inc. **Grant Awarded: \$85,802** **Restoring Beavers in the Wenatchee and Entiat River Basins**

Trout Unlimited will use this grant to restore beavers to streams in the Wenatchee and Entiat River basins. Beaver activities diversify stream reach types, create wetlands, enhance shoreline buffers, promote groundwater storage, mitigate floods, improve water quality, recruit woody materials, and offer critical rearing habitat for juvenile salmonids. Trout Unlimited will relocate nuisance beavers, educate the community about the value of beavers through the Leavenworth National Fish Hatchery, and provide beaver management education, tools, and technical assistance to landowners. In addition, Trout Unlimited has received other funding to install beaver dam analogs (small, strategically placed woven branch structures) in the watershed. The river basins are used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead and bull trout, both of which are species listed as threatened with extinction. Trout Unlimited will contribute \$135,850 in a local grant and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1195)

Trout Unlimited, Inc. **Grant Awarded: \$28,094** **Restoring Fish Passage in Clear Creek**

Trout Unlimited will use this grant to remove a diversion dam and other small barriers to fish passage in Clear Creek on land owned by Thousand Trails, a camping and recreational vehicle park. Clear Creek is a tributary of the Chiwawa River upstream of its confluence with the Wenatchee River. A 10-foot-tall rock and concrete potable water diversion dam prevents the

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majority of steelhead from reaching several miles of habitat along undeveloped forests upstream of the dam. The creek is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. Trout Unlimited will contribute \$19,080 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1192)

Washington Water Trust Restoring Water to Icicle Creek

Grant Awarded: \$495,000

Cascade Orchards Irrigation Company will use this grant to remove its diversion on Icicle Creek and replace it with a pump station on the Wenatchee River. The work will add up to 11.9 cubic feet per second of water permanently to the lowest 4.5 miles of Icicle Creek. This is the most senior water in Icicle Creek, and each year will add an amount of water surpassing the 700 million gallons of water Washingtonians drink each year. The work will help salmon and steelhead in the most flow-limited portion of the creek. The creek has too little water and water that is too warm. In dry years, some parts of the river can drop to less than 30 percent of usable area for steelhead rearing. This project is part of a larger \$4 million project. The creek is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Washington Water Trust will contribute \$1.5 million from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1191)

Clallam County

Clallam Conservation District Fixing Barriers to Fish Passage in Sitkum River Tributaries

Grant Awarded: \$59,345

The Clallam Conservation District will use this grant to complete final designs for a project to fix five culverts that pose a significant threat of failure, mass wasting, and sediment delivery to the highly productive Sitkum River on the west side of the Olympic Peninsula. The conservation district will complete a survey, designs, and contract packages for five places where streams cross under Forest Service Road 2900. Culverts are large structures that carry streams under roads. The ones along the Forest Service Road are too small, deteriorating, and present a risk of failure. There's also concern the road will fail and be closed. The road is important for recreational use and wildfire control, and serves as an alternate route for passage in and out of the town of Forks. The watershed is used by steelhead, rainbow, and cutthroat trout. Coho, Chinook, and sockeye salmon also are present about 1.5 miles downstream in the Sitkum River. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1103)

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Clallam County

Grant Awarded: \$3,000,000

Restoring the Lower Dungeness Floodplain

The Clallam County Department of Community Development will use this grant to set back the U.S. Army Corps of Engineers east bank levee, reconnecting the lower Dungeness River with about 112 acres of its historic floodplain. Built in 1963, the levee constrains the river resulting in instability and degraded water quality that causes shellfish closures. Dikes on both sides of the river have cut the river off from its floodplain and disrupted river processes, which prevent flood waters from dissipating and inhibit the river's natural ability to store excess sediment outside the channel. Moving the levee and restoring the river channel will provide floodplain and side channel habitat critically-needed by salmon for spawning, rearing, and migration. The river is used by Chinook and chum salmon, bull trout, and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. Clallam County will contribute \$500,000 from a state grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1372)

Lower Elwha Klallam Tribe

Grant Awarded: \$113,000

Restoring the Pysht River Floodplain

The Lower Elwha Klallam Tribe, in partnership with the Makah Tribe, Merrill and Ring, the North Olympia Land Trust, and two private landowners will use this grant to complete the final portion of a much larger project that includes the installation of 32 logjams and 350 feet of floodplain fencing, and the planting of the banks of the Pysht River, as part of a long-term effort to improve salmon habitat in the river and its major tributaries. Because of historic logging and removal of wood from streams, the entire watershed doesn't have enough logjams in its streams and the age and composition of shoreline forests are not adequate to support natural habitat-forming processes. Since 1994, the Lower Elwha Klallam Tribe has completed a series of restoration projects focusing on adding tree root wads and large logs to channels and replanting shorelines. Logjams create places for fish to rest, feed, and hide from predators. They also slow the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logjams change the flow of the river, creating riffles and pools, which give salmon more varied habitat. Planting trees and bushes along a shoreline helps shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat. Finally, the roots of the plants help keep soil from entering the water, where it can smother fish spawning gravel. The Pysht River is used by Chinook, coho, and chum salmon and steelhead and cutthroat trout. The Lower Elwha Klallam Tribe and the Makah Tribe, along with others, will contribute \$281,000. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (15-1061)

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Lower Elwha Klallam Tribe Placing Large Woody Materials in Little River

Grant Awarded: \$1,325,210

The Lower Elwha Klallam Tribe will use this grant to place large tree root wads and logs in the Little River, an important tributary of the Elwha River and one of the first habitats upstream of the recently removed Elwha Dam. Historic logging has removed most of the large woody materials in the river, causing the water to move faster and cut the channel deeper. The river has lost many of its calm pools, spawning gravels, and off-channel habitat. The Tribe will place large woody materials at 78 locations. Tree root wads and logs create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river and allows small gravel to settle to the river bottom for spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. Little River is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, as well as coho and pink salmon. The Lower Elwha Klallam Tribe will contribute \$237,000 in donations of cash and volunteer labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1373)

Jamestown S'Klallam Tribe Conserving and Restoring the Dungeness River Floodplain

Grant Awarded: \$1,041,845

The Jamestown S'Klallam Tribe will use this grant to buy, restore, and forever conserve more than 16 acres of floodplain along the Dungeness River near Sequim. The Tribe will remove armoring and levee structures to allow natural habitat forming processes to resume and to restore a variety of habitats, including an active river channel, side channels, a floodplain, and a floodplain forest. Recovery of sustainable, harvestable runs of salmon in the Dungeness River is a cultural and economic priority of the Tribe and this project is an important step towards that goal. The work is expected to restore habitat, reconnect the floodplain, reduce flood risk and maintenance costs for publicly owned facilities, create a healthier floodplain ecosystem, and increase recreational opportunities just minutes from Sequim. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, as well as coho, chum, and pink salmon. The Jamestown S'Klallam Tribe will contribute \$183,855 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1367)

North Olympic Land Trust Conserving the Lower Elwha River

Grant Awarded: \$129,393

The North Olympic Land Trust will use this grant to help conserve high quality salmon habitat in the Elwha River watershed. The land trust will conserve the land using a voluntary land preservation agreement, also called a conservation easement. The land contains more than 1 mile of Elwha River shoreline and a mature forest, which shades the river, keeping the water

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cool for fish. More than half of the property is in the floodplain, river meander zone, or at high risk of erosion. The river is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The river also is used by chum, pink, and sockeye salmon and cutthroat trout. The project still needs additional funding to be completed. The North Olympic Land Trust will contribute \$113,485 in donations of land. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1345)

North Olympic Land Trust Conserving the Upper Elwha River

Grant Awarded: \$284,822

The North Olympic Land Trust will use two grants to buy voluntary land preservation agreements, also known as conservation easements, for up to 30 acres along the Elwha River. The purchase from willing sellers will protect forever, some of the best salmon habitat in the Elwha River watershed. The land includes one-third mile of shoreline, floodplain, river meander zone, and a mature forest. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho, chum, pink, and sockeye salmon and cutthroat trout. The project will included \$50,263 in donated land value. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1529)

North Olympic Salmon Coalition Planning the Restoration of the Lower Hoko River

Grant Awarded: \$188,561

The North Olympic Salmon Coalition will use this grant to conduct feasibility studies and develop preliminary designs to restore up to 130 acres of salmon habitat in the lower 3.4 miles of the Hoko River, in western Clallam County. Potential restoration actions include breaching of the railroad grade, removal of a railroad trestle, placement of engineered logjams, and riverbank plantings. The river is used by Chinook, chum, coho, and steelhead salmon. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1344)

Clark County

Lower Columbia Estuary Partnership Designing Restoration near Ridgefield Pits

Grant Awarded: \$240,570

The Lower Columbia Estuary Partnership will use this grant to complete preliminary designs for three reaches in the Ridgefield Pits area of the East Fork Lewis River, in Clark County. A large flood in 1996 pushed the east fork into abandoned gravel pits in the floodplain, lowered the riverbed upstream, and wiped out more than three-quarter mile of high quality spawning habitat. The estuary partnership will develop restoration designs that address these problems. The designs will target the river alignment around the gravel pits, off-channel improvements,

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and invasive and predatory species affecting salmon using these reaches. The estuary partnership will analyze aquatic surveys, topography, bathymetry, hydrology, geomorphology, temperature, and dissolved oxygen data collected through land and river surveying. The river is used by Chinook and coho salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Lower Columbia Estuary Partnership will contribute \$44,952 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1070)

Columbia County

Pomeroy Conservation District

Grant Awarded: \$22,000

Planting the Banks of Pataha Creek to Improve Salmon Habitat

The Pomeroy Conservation District will use this grant to plant 20 to 40 clusters of willow and cottonwood along 4 miles of Pataha Creek, 15 miles downstream of Pomeroy. The project is in a major spawning area for Snake River steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. The creek is plagued with many problems, including too much fine sediment, poor habitat diversity and quality, and water that is too warm. Reed canary grass, an invasive perennial grass, is the dominant vegetation along Pataha Creek and has promoted an incised and simplified channel with vertical banks that limit the creek's ability to create complex habitat. The new plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. Restoring native woody vegetation also will provide an important source of forage for beavers to promote beaver activity, which can be beneficial to salmon. The Pomeroy Conservation District will contribute \$6,000 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#) or visit www.snakeriverboard.org. (17-1302)

More projects in Columbia County are listed under "Multiple Counties" at the end of this document

Cowlitz County

Cowlitz Conservation District

Grant Awarded: \$174,000

Restoring Germany Creek

The Cowlitz Conservation District will use this grant to place large logs and tree root wads in Germany Creek. Overall, the logs and root wads will change the flow of the creek, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also will slow the creek, allowing small gravel to settle to the bottom for spawning areas. Slower water also

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reduces erosion and the amount of fine sediment in the creek. The river is used by Chinook, chum, and coho salmon, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and by steelhead, which is important to the recovery of the lower Columbia River steelhead species. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1027)

Cowlitz Indian Tribe Designing the Restoration of Gobar Creek

Grant Awarded: \$96,313

The Cowlitz Indian Tribe will use this grant to create two preliminary designs for a project to increase the quantity and quality of winter rearing habitat in three sections of Gobar Creek, a tributary to the Kalama River, in Cowlitz County. The design will include placement of large logs and tree root wads on 35 acres, including more than 1 mile of Gobar Creek. Overall, the logs and root wads will change the flow of the creek, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also will slow the creek, allowing small gravel to settle to the bottom for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the creek. The design also will include removing constraints for a quarter-mile of floodplain to increase the quality and quantity of winter rearing habitat for juvenile fish. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1066)

Cowlitz Indian Tribe Restoring Erick Creek

Grant Awarded: \$455,183

The Cowlitz Indian Tribe will use this grant to restore three reaches in Erick Creek, a tributary to Abernathy Creek, in Cowlitz County. The Tribe will hire helicopter and ground crews to place wood in nearly three-quarter mile of the creek. The wood placement will allow the creek to reconnect to, and create, nearly a quarter-mile of off-channel rearing habitat. Overall, the woody materials will change the flow of the creek, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also will slow the water, allowing small gravel to settle to the bottom for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the creek. The Tribe also will plant tree along 14 acres of shoreline. The trees will shade the water, keeping it cooler for salmon. The trees also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the tree roots keep the soil from entering the water and burying spawning gravel. The Tribe also will remove a 100-foot-long relict road segment that acts as a levee and isolates Erick Creek from part of its floodplain. The river is used by coho salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by steelhead, which is important to the recovery of the lower Columbia River steelhead species. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1115)

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Lower Columbia Fish Enhancement Group

Grant Awarded: \$225,790

Restoring Floodplain Habitat in the South Fork Toutle River

The Lower Columbia Fish Enhancement Group will use this grant to design and build a project to increase the usable habitat for salmon and steelhead in the upper South Fork Toutle River, in Cowlitz County. The fish enhancement group will place large logs and tree root wads in a third-mile of river and a third-mile of off channels. Overall, the logs and tree root wads will change the flow of the river, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also will slow the water, allowing small gravel to settle to the bottom for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the river. In addition to placing logs, the fish enhancement group will plant trees and shrubs on nearly 38 acres of shoreline and floodplain. The new plantings will help shade the water, keeping it cool for fish. The plants also drop branches and leaves into the water, which provide food for the insects that fish eat and places for fish to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. Little Cow Springs and Little Cow Creek meet the South Fork Toutle River at the lower end of a long valley in the upper watershed. Before the 1980 eruption of Mount Saint Helens, this high valley supported significant runs of Chinook and coho salmon, steelhead, and sea-run cutthroat trout. The fish enhancement group is using this grant as a starting point to recover these unique and important fish populations. The river is used by Chinook and coho salmon, and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Lower Columbia River Fish Enhancement Group will contribute \$44,250 in donations of labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1119)

Lower Columbia Fish Recovery Board

Grant Awarded: \$249,450

Developing a Strategy for Restoration in the Upper Cowlitz-Cispus Subbasins

Working with Tacoma Power, the Lower Columbia Fish Recovery Board will use this grant to develop a habitat restoration strategy for the upper Cowlitz River and Cispus River subbasins. The fish recovery board will evaluate existing data and information and assess habitat conditions in the field to develop a strategy that will cover about 85 miles of high priority stream reaches. The strategy will result in a long-term plan and a prioritized list of projects to address the problems limiting fish populations, including a lack of habitat diversity and quantity, channel stability, and degraded sediment and flow processes. The fish recovery board also will develop a preliminary design for one restoration project. The river is used by Chinook and coho salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. Tacoma Power will contribute \$45,150 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1044)

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Lower Columbia River Fish Enhancement Group Planning the Restoration of a Green River Reach

Grant Awarded: \$144,100

The Lower Columbia River Fish Enhancement Group will use this grant to design a restoration project for a 2-mile-long reach of the Green River that starts at its confluence with the North Fork Toutle River, in Cowlitz County, on land owned by the Washington Department of Fish and Wildlife and the Weyerhaeuser Company. The design will focus on creating habitat diversity in the Green River, which serves as a wild steelhead gene bank. The design will include planting the riverbanks, improving the off-channel and side-channel habitats, and placing large woody materials in the Green River. The river is used by Chinook and coho salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1096)

Lower Columbia River Fish Enhancement Group Restoring the South Fork Toutle River and Bear and Harrington Creeks

Grant Awarded: \$222,225

The Lower Columbia River Fish Enhancement Group will use this grant to design and implement a project to restore the lower portions of Bear and Harrington Creeks, and the confluence of these creeks with the South Fork Toutle River, in Cowlitz County. The fish enhancement group will place large logs and tree root wads in more than a mile of the creeks and in the floodplain forest. Overall, the logs and root wads will change the flow of the creeks, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also will slow the creeks, allowing small gravel to settle to the bottom for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the creeks. The fish enhancement group also will cut alder trees to thin the forest and replant the area with other trees. Bear Creek is one of the largest tributaries of the South Fork Toutle River, and Harrington Creek flows through a valley, providing critical off-channel habitat. The confluence of the two creeks with the south fork is at the bottom of a long valley in the upper watershed. Before the eruption of Mount Saint Helens in 1980, this high valley supported significant salmon runs and the fish enhancement group is using this project as a starting point to recovering these unique and important fish populations. The river is used by Chinook and coho salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Lower Columbia River Fish Enhancement Group will contribute \$44,360 in donations of labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1118)

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Garfield County

Pomeroy Conservation District

Grant Awarded: \$83,300

Installing Wood Structures in Alpowa Creek to Improve Salmon Habitat

The Pomeroy Conservation District will use this grant to install wood structures in the Alpowa Creek watershed, west of Clarkston. The conservation district will place the structures in a 1.5-mile reach located in prime steelhead spawning and rearing habitat. The wood structures create places for fish to rest and hide from predators. They also slow the creek, which reduces erosion and the amount of sediment in the creek. A slower creek allows small gravels to settle to the bottom for spawning areas. Finally, they change the flow of the creek, creating riffles and deep cold pools, giving fish more varied habitat. This project will increase the number of pools from the 2.8 per 100 meters to more than 8 pools per 100 meters. This project also expands restoration efforts of a previous project that installed the wood structures upstream. Alpowa Creek is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by Chinook salmon. Landowners understand the importance of this wild steelhead population and have agreed to the installation of the structures. The U.S. Forest Service will contribute \$14,700 in donations of materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#) or visit www.snakeriverboard.org. (17-1299)

Grays Harbor County

Chehalis Basin Fisheries Task Force

Grant Awarded: \$63,500

Designing Fixes to Bush Creek Barriers Blocking Fish Passage

The Chehalis Basin Fisheries Task Force will use this grant to design and permit projects to remove three barriers to fish passage in Bush Creek, northeast of Elma. The three culverts, which are pipes that carry streams under roads, prevent two-thirds of the fish from reaching more than 8.4 miles of spawning and rearing habitat. The fisheries task force will complete topographical surveys, engineering, final design drawings, and permitting for the three barrier sites. The resulting materials will be used to apply for grants for construction. Bush Creek is used by Chinook, coho, and chum salmon as well as steelhead and cutthroat trout. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1184)

Grays Harbor Conservation District

Grant Awarded: \$76,441

Correcting Barriers to Fish in Fir Creek

The Grays Harbor Conservation District will use this grant to replace two culverts with a 50-foot-long bridge to improve fish passage in Fir Creek, a tributary to Vesta Creek, in the North River watershed. Culverts are large structures, usually pipes, which carry streams under roads. These

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culverts are on Weyerhaeuser Company land. These paired culverts have significant outfall drops that make fish passage impossible, especially at lower water levels. Correcting these barriers will open access to about 4.3 miles of upstream habitat for spawning and rearing by coho salmon, steelhead, and cutthroat trout. The Grays Harbor Conservation District will contribute \$104,500. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1188)

Grays Harbor Conservation District **Grant Awarded: \$92,500** **Opening Fish Passage in a Little North River Tributary**

The Grays Harbor Conservation District will use this grant to replace three culverts with a 50-foot-long bridge over an unnamed tributary of the Little North River. Culverts are large structures, often pipes, which carry streams under roads. The existing culverts are too small so the water pushes through too forcefully for many fish. During extreme high water, the culverts can't move the water fast enough and the water floods over the road. The road is owned by Weyerhaeuser and is near the confluence of this unnamed tributary with the Little North River. Correcting these barriers will open 6.3 miles of habitat suitable for spawning and rearing by coho, chum, and Chinook salmon, and steelhead and cutthroat trout. The Grays Harbor Conservation District will contribute \$108,500 in cash and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1187)

Quinault Indian Nation **Grant Awarded: \$150,000** **Controlling Knotweed along the Lower Quinault River**

The Quinault Indian Nation's Division of Natural Resources will use this grant to survey and treat invasive knotweed plants along 6 miles of the lower Quinault River floodplain. The Tribe will survey nearly 1,900 acres and treat an estimated 950 acres. Knotweed is a serious threat to shoreline habitats because it grows vigorously, creating dense colonies that make it hard for native plants to survive. Knotweed's ability to out-compete other plants alters the natural ecosystem, and once established, is very difficult to get rid of. The Quinault River is used by Chinook, chum, coho, and sockeye salmon; steelhead; and cutthroat trout. The Quinault Indian Nation will contribute \$26,473 in staff labor and a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1089)

Quinault Indian Nation **Grant Awarded: \$65,000** **Removing a Barrier to Fish Passage in the Quinault River**

The Quinault Indian Nation's Division of Natural Resources will use this grant to build a bridge on the Camp 7 Road, over an unnamed tributary to the lower Quinault River on the Quinault Indian Reservation. The bridge will replace a culvert that is blocking fish. Culverts are large structures, usually pipes, which carry streams under roads. The river is used by coho salmon, char, steelhead, and cutthroat and rainbow trout. The Quinault Indian Nation will contribute

Salmon Recovery Grants Awarded



\$228,940 in a federal grant and donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1117)

Trout Unlimited, Inc.

Grant Awarded: \$36,470

Removing a Road over Ziegler Creek to Improve Salmon Habitat

Trout Unlimited will use this grant to remove an abandoned utility road over Ziegler Creek, on the U.S. Forest Service's Norwood property, and restore the area to natural conditions. Ziegler Creek is a tributary to Lake Quinault and flows into the southeast end of the lake from the Olympic National Forest. Trout Unlimited also will place large logs and tree root wads in the creek and plant the creek banks. Tree root wads and logs create places for fish to rest and hide from predators. They also slow the water, which reduces erosion and the amount of sediment in the river. Slower water allows small gravels to settle to the bottom for spawning areas. Finally, they change the flow of the creek, creating riffles and deep cold pools, giving fish more varied habitat. The new plantings along the creek banks will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. In a naturally flood prone area, and with the increasing intensity of storms related to climate change, removal of this road will minimize flood damage. The creek is used by coho, Chinook, and sockeye salmon; steelhead; and cutthroat and rainbow trout. The project is a joint effort of Trout Unlimited, the U.S. Forest Service, and the Quinault Indian Nation. Trout Unlimited will contribute \$10,786 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1104)

Island County

Greenbank Beach and Boat Club

Grant Awarded: \$37,796

Designing the Restoration of the Greenbank Marsh

The Greenbank Beach and Boat Club, with support from Whidbey Island Conservation District, will use this grant to help develop an engineering design and permit applications for a project to restore tidal connectivity and fish passage to a 20-acre brackish lagoon and freshwater marsh system in Greenbank. The restoration project also will address storm water drainage issues. The project site, most of which is owned by Greenbank Beach and Boat Club, is the relic of a larger tidal marsh that occupied the area before settlement in the 19th century. The grant primarily will be used to hire geotechnical and coastal engineering consultants and to continue stakeholder outreach and consultation activities. The area is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1140)

Salmon Recovery Grants Awarded



Northwest Straits Marine Conservation Foundation Maintaining Shoreline Plantings in Cornet Bay

Grant Awarded: \$26,932

The Northwest Straits Marine Conservation Foundation will use this grant to maintain shoreline plantings at restoration sites on Cornet Bay for 2 years. Volunteers and contractors will weed, replace unsuccessful plants, plant new plants, and water the newest plants in the summer. Shoreline plants help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The bay is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The bay also is used by chum and pink salmon. The Northwest Straits Marine Conservation Foundation will contribute \$5,600 in donations of cash and volunteer labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1428)

Northwest Straits Marine Conservation Foundation Removing Armoring along Maylor Point

Grant Awarded: \$100,000

The Northwest Straits Marine Conservation Foundation will use this grant to remove about a quarter-mile of varied shore armor treatments from the toe of a high feeder bluff at Maylor's Point, Naval Air Station Whidbey in Island County. The armor includes 185 treated posts, 165 plank, 1,300 tires, 10,000 square feet of concrete bags, and more than 16,000 square feet of angular rock. The Northwest Straits Marine Conservation Foundation will contribute \$53,306 in cash donations. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1307)

Northwest Straits Marine Conservation Foundation Removing the Bulkhead at Sunlight Shores

Grant Awarded: \$99,049

The Northwest Straits Marine Conservation Foundation will use this grant to remove rock, concrete rubble, and creosoted piles along 350 feet of shoreline owned by the Sunlight Shores community. Crews also will regrade and smooth the area, and fill the depressions left from pile and concrete removal, which will result in the edge of the lawn moving landward 12 to 15 feet. The work will convert the shore to a more natural upper intertidal and backshore habitat. The water is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by steelhead, which is a species proposed for listing. The Northwest Straits Marine Conservation Foundation will contribute \$17,480 in another grant and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1064)

Salmon Recovery Grants Awarded



Northwest Straits Marine Conservation Foundation Removing the Seahorse Siesta Barge

Grant Awarded: \$419,228

The Northwest Straits Marine Conservation Foundation will use this grant to remove an old barge and a concrete wall from the toe of a feeder bluff at the Seahorse Siesta Community beach in Langley, in Island County. The community association is supportive of this project. The bulkhead extends 98 feet onto the beach from the toe of the bluff on the north side and 62 feet on the south side. The foundation will remove the bulkhead, barge, and fill and then grade the bluff to maintain the existing beach access. The area is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The bay also is used by chum and pink salmon. The Northwest Straits Marine Conservation Foundation will contribute \$73,982 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1306)

Whidbey Camano Land Trust Conserving Barnum Point

Grant Awarded: \$61,728

The Whidbey Camano Land Trust will use this grant to help conserve 65 acres on Barnum Point on Camano Island, directly across from the mouth of the Stillaguamish River and next to the Port Susan Marine Conservation Area. The area contains upland, forested bluff, and tidelands on the east side of county-owned property. This purchase is part of a larger project to conserve the entire 129-acre point, including more than three-quarters of a mile of shoreline, land along the mouth of Triangle Cove (one of the only non-diked estuaries in Island County), eroding bluffs that feed important sediments to Iverson Point and Livingston Bay to the northeast, and a forested bluff. The land trust, Island County, and The Nature Conservancy already have conserved 64 acres of the point. More than 600 individual private donations have contributed to Barnum Point's conservation. The water around the point is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1429)

Whidbey Camano Land Trust Conserving Dugualla Bay Tidelands

Grant Awarded: \$31,500

The Whidbey Camano Land Trust will use this grant to buy about 83 acres of tidelands in Dugualla Bay. The purchase would expand upon the 149 acres of adjacent protected land. Currents push juvenile salmon into Dugualla Bay from the North Fork Skagit River. The bay's mudflats produce small prey that are eaten by young salmon. The bay is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by steelhead, which is a species proposed for listing. The Whidbey Camano Land Trust will contribute \$6,500 in

Salmon Recovery Grants Awarded



donations of land. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1062)

Whidbey Camano Land Trust Developing a Nearshore Acquisition Strategy

Grant Awarded: \$49,300

The Whidbey Camano Land Trust will use this grant to work with partners to develop a science-based prioritization of shoreline parcels to conserve in Island County to help with the recovery of salmon. The prioritization tool will be used by the Island County Lead Entity to prioritize protection projects as they become available. Salmon recovery partners may use the tool to identify which landowners to contact and whether to buy land as it becomes available. The water surrounding Island County is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by steelhead, which is a species proposed for listing. The Whidbey Camano Land Trust will contribute \$8,700 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1063)

Jefferson County

Hood Canal Salmon Enhancement Group Assessing Property Near the Moon Valley Restoration Project

Grant Awarded: \$45,463

The Hood Canal Salmon Enhancement Group will use this grant for outreach to landowners downstream of a proposed restoration project in the Moon Valley reach of the Big Quilcene River, in Jefferson County. The salmon enhancement group will talk with landowners and evaluate all the land in the floodplain and downstream of the Moon Valley reach for its habitat value and to determine if any of the land will need to be included in the restoration planning and will need to be purchased or conserved. The proposed restoration project will reconnect at least 100 acres of floodplain, restore the river's migration area, and increase the length of the river, all to improve salmon spawning and rearing habitat. The river is used by chum salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which are a federal species of concern. The Hood Canal Salmon Enhancement Group will contribute \$30,000 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1054)

Hood Canal Salmon Enhancement Group Buying Land to Support Duckabush Estuary Restoration

Grant Awarded: \$135,234

The Hood Canal Salmon Enhancement Group will use this grant to buy 2.4 acres in the estuary and historic floodplain of the lower Duckabush River. The enhancement group also will demolish a building, decommission a well, remove a septic system, and plant the riverbanks. The overall goal is to restore the tides and reconnect the river to its floodplain to support rearing of young

Salmon Recovery Grants Awarded



salmon in the Duckabush River. The river is used by Chinook and chum salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The river also is used by coho salmon, which are a federal species of concern. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. The Hood Canal Salmon Enhancement Group will contribute \$276,441 in grants from the state Estuary and Salmon Restoration Program and the state salmon recovery program. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1492)

Hood Canal Salmon Enhancement Group **Grant Awarded: \$856,366** **Designing the Restoration of the Lower Big Quilcene River**

The Hood Canal Salmon Enhancement Group will use this grant to develop the final design for a restoration project on the lower mile of the Big Quilcene River. The restoration project is expected to allow the river to spread across more of its floodplain and reconnect to historic floodplain areas. The final design will define which roads and bridges should be raised above the floodplain. It also will define which levees should be strengthened, removed, or left alone. It will show the placement of large logs and tree root wads, and the location of shoreline plantings. This grant also will pay for some permits, a topographic survey, soil testing and borings, and wetland and archeological studies. The river is used by Chinook and chum salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Hood Canal Salmon Enhancement Group will contribute \$814,375 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1053)

Jefferson County **Grant Awarded: \$145,472** **Building a Bridge over Salmon Creek to Remove a Fish Passage Barrier**

The Jefferson County Department of Public Works will use this grant to remove a fish passage barrier in Salmon Creek. The department will remove a large steel pipe that carries the creek under West Uncas Road and build an 80-foot-long bridge over the creek instead. The pipe and rip rap prevent summer chum salmon from reaching three-quarter mile of prime spawning habitat. Removing the pipe will double the available spawning habitat for summer chum salmon, which are a species listed as threatened with extinction under the federal Endangered Species Act. Jefferson County will contribute \$164,872 in cash and a federal grant and \$788,800 in a previously awarded salmon recovery grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (15-1192)

Jefferson County **Grant Awarded: \$82,660** **Protecting the Big Quilcene River Floodplain**

Jefferson County will use this grant to plan and educate landowners near a restoration project planned in the lower 1 mile of the Big Quilcene River. The County also may buy land or property

Salmon Recovery Grants Awarded



interest. The County is considering moving a road and bridge that cross the Big Quilcene River to a location that will allow the river to reconnect to historic floodplain areas to improve salmon habitat in the lower river. This project will work directly with willing landowners. The river is used by Chinook and chum, and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The river also is used by coho salmon, which are a federal species of concern. Jefferson County will contribute \$50,000 in a state grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1052)

North Olympic Salmon Coalition

Grant Awarded: \$215,819

Controlling Invasive Plants on Snow and Chimacum Creeks

The North Olympic Salmon Coalition will use this grant to control knotweed and reed canarygrass and to plant trees and bushes on 30 acres along the shoreline of Chimacum and Snow Creeks, in Jefferson County. Knotweed and reed canarygrass have invaded the shorelines, resulting in a corridor that is lacking in diversity and habitat quality. Riverbank plantings help shade the water, cooling it for fish and offering places for salmon to rest and hide from predators. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat. The project will restore critical rearing and spawning habitat for chum salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and for coho salmon, which is a federal species of concern. This is the third phase in the effort to restore the shorelines. The North Olympic Salmon Coalition will contribute \$54,300 in a federal grant and donation of materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1473)

Pacific Coast Salmon Coalition

Grant Awarded: \$212,659

Placing Logs in Goodman Creek to Create Salmon Habitat

The Pacific Coast Salmon Coalition will use this grant to design and place large logs and tree root wads in Goodman Creek, on the west Olympic Peninsula in Jefferson County. A section of Goldman Creek suffers from a lack of deep cold pools. Tree root wads and logs create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river. A slower river allows small gravels to settle to the river bottom for spawning areas. Finally, the tree root wads and logs change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. The creek is used by coho salmon, steelhead, and resident trout. The Pacific Coast Salmon Coalition will contribute \$37,529 in donations of labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1234)

More projects in Jefferson County are listed under "Multiple Counties" at the end of this document

Salmon Recovery Grants Awarded



King County

Adopt A Stream Foundation Restoring a Reach in Bear Creek

Grant Awarded: \$125,248

The Adopt A Stream Foundation will use this grant to place pieces of wood in Bear Creek and replant the creek banks at the Friendly Village Mobile Home Park in Redmond. Development has disconnected the creek from its historic floodplain and constricts the river at several stream crossings, which results in reduced habitat. The logs with root wads will help create pools for fish to rest, feed, and hide from predators. Large pieces of wood also slow the water, which reduces bank erosion and the resulting deposition of fine sediment into the creek, which can cover spawning gravels. Finally, the logs and root wads change the flow of river, creating riffles and pools, giving fish more varied habitat. The streamside plantings will help shade the water, keeping it cool for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help stop erosion. Bear Creek is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The Adopt A Stream Foundation will contribute \$30,000 in another grant and donations of volunteer labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1215)

Bothell Conserving Land along the Sammamish River

Grant Awarded: \$1,000,000

The City of Bothell is partnering with Forterra, King County, and OneBothell to buy 10 acres of an 89-acre golf course in Bothell. The land is along the Sammamish River, about 2.5 miles from Lake Washington. With about 1,000 feet of shoreline along the Sammamish River and 1,000 feet of a tributary stream, the purchase will protect the land from development and allow for future floodplain and shoreline habitat restoration. The river is an important migratory corridor for Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The river also is used by kokanee, coho, and sockeye salmon. The property is one of the largest undeveloped sites remaining along the Sammamish River and is at extreme risk of development in a fast-growing area. Bothell will contribute \$200,000 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1210)

Forterra Conserving the South Fork Skykomish River

Grant Awarded: \$477,294

Forterra will use this grant to buy 26 acres of shoreline and forested land on the north bank of the Skykomish River, about 1 mile upstream of the Baring/Index Creek Bridge, in King County.

Salmon Recovery Grants Awarded



The land extends from Highway 2 to the Skykomish River, and includes 1,350 feet of river frontage, 1,000 feet of tributaries, 5 acres of shoreline habitat, an unnamed stream, and 5 acres of wetlands. Unprotected, this property is at risk of development, road building, and logging. This property provides habitat for spawning Chinook salmon, which is listed as threatened with extinction under the federal Endangered Species Act, pink salmon, and steelhead. It provides rearing habitat for coho salmon and bull trout. Forterra will contribute \$111,000 in Conservation Futures.¹ Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1632)

King County

Grant Awarded: \$299,917

Conserving a Bluff and Beach in the Maury Island Aquatic Reserve

The King County Water and Land Resources Division will use this grant to buy 11 acres of shoreline bluff and the accompanying beach in the Maury Island Aquatic Reserve. This purchase will allow for the future removal of about 372 feet of armoring and will build upon efforts to restore habitat for Chinook salmon and forage fish (sand lance, surf smelt, and Pacific herring), which salmon eat. The river is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. King County will contribute \$172,375 in Conservation Futures.² Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-2120)

King County

Grant Awarded: \$250,000

Designing the Lones-Turley Levee Setback

The King County Water and Land Resources Division will use this grant to complete final designs of a project to setback one of three levees at the Lones/Turley reach of the middle Green River, 6 miles east of Auburn. The work will restore habitat for Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The intent is to set-back all three levees over time to maximize the restoration benefits while protecting the land. King County will contribute \$45,000. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1893)

King County

Grant Awarded: \$400,000

Reconnecting the Tolt River to its Floodplain

King County Water and Land Resources Division will use this grant to complete preliminary design and initiate permitting for a project that entails removing and setting back a half-mile of the lower Frew levee along the right bank of the Tolt River. This project will reconnect up to

¹Conservation futures are a portion of property taxes used by local governments to buy land or development rights to protect natural areas, forests, wetlands, and farms.

²Conservation futures are a portion of property taxes used by local governments to buy land or development rights to protect natural areas, forests, wetlands, and farms.

Salmon Recovery Grants Awarded



34 acres of the floodplain, side channels, and ponds to the Tolt River, and provide improved habitat along the old levee. This project is part of a greater vision for the implementation of multiple floodplain reconnection projects in the lower Tolt reach and will add to the nearly 50 acres of floodplain that were reconnected in 2009. The new lower Frew setback levee will be a recreation trail with connections to the Snoqualmie Valley Trail and other local trails. The lower Tolt River is one of four important spawning areas in the Snoqualmie watershed for Chinook salmon, which is listed as threatened with extinction under the federal Endangered Species Act. The Tolt River also is used by steelhead and bull trout, both of which are species listed as threatened, and by coho, chum, and pink salmon. King County will contribute \$100,000. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1548)

King County

Grant Awarded: \$450,000

Restoring Middle Boise Creek

The King County Water and Land Resources Division will use this grant to excavate the middle Boise Creek floodplain, install tree root wads and large logs in the creek, and plant trees and shrubs on the south side of the creek to improve habitat for salmon. Tree root wads and logs create places for fish to rest and hide from predators. They also slow the creek, which reduces erosion and the amount of sediment in the creek and allows small gravel to settle to the bottom for spawning areas. Finally, they change the flow of the creek, creating riffles and deep cold pools, giving fish more varied habitat. The new shoreline plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. The roots of the plants help keep the soil from entering the water and burying spawning gravel. The creek is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. King County will contribute \$100,000 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1552)

King County

Grant Awarded: \$6,191,014

Setting Back a Lower Russell Road Levee

King County will use this grant to restore salmon habitat in the Green River as part of a larger project to set back the lower Russell Road levee. Moving the levee will reconnect more than 50 acres of floodplain. Work will include excavating part of the isolated floodplain so it's inundated by the river, which will create 23 acres of rearing and resting habitat for juvenile salmon. King County also will plant the more than 30 acres of shorelines with trees and place large tree root wads and logs in the river to create habitat for salmon. Tree root wads and logs create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river and allows small gravel to settle to the river bottom for spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. The river is used by Chinook salmon, steelhead, and

Salmon Recovery Grants Awarded



bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. It's one of the only sites in the lower Green River without major development, providing a rare opportunity for substantial habitat restoration in a mostly developed landscape. King County will contribute more than \$5.2 million from a King County Flood Control District grant and a state grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1899)

Mountains to Sound Greenway

Grant Awarded: \$182,645

Planning the Restoration of Lower Issaquah Creek

The Mountains to Sound Greenway Trust will use this grant to complete a preliminary design of a restoration project that will improve habitat for salmon in the lower portion of Issaquah Creek, in Lake Sammamish State Park. This section of Issaquah Creek is incised in many locations and disconnected from the surrounding floodplain, making the creek run too swiftly during high flows for many salmon and giving them no place to rest. The restoration project will involve placing large logs and tree root wads in 1.25 miles of the creek. Tree root wads and logs create places for fish to rest and hide from predators, and they slow the water, which reduces erosion and sorts the sediment in the creek in a beneficial way. Wood in the stream also changes the flow of the creek, creating riffles and deep cold pools, giving salmon more varied habitat. This project is a continuation of the effort underway by the Mountains to Sound Greenway Trust, State Parks, and others, and will move the restoration planning process toward implementation in 2020. The creek is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The Mountains to Sound Greenway will contribute \$72,145 in a local grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1074)

Seattle

Grant Awarded: \$541,360

Protecting the Royal Arch Reach of the Cedar River

Seattle Public Utilities will use this grant to buy nearly 12 acres along the Cedar River, near the intersection of State Routes 169 and 18 near Maple Valley in King County. The goal is to secure land that will be part of a future 67-acre floodplain reconnection project. During the 20th century, the Cedar River in the Royal Arch Reach was channelized with bank hardening structures such as levees and revetments, cutting off the wide, flat floodplain from the main channel. Reconnecting this floodplain to the river will provide important rearing and refuge habitat for Chinook salmon, as well as reduce flood risk in the area. Seattle Public Utilities already has acquired 14 acres in this reach, and is in the process of acquiring an additional 3 acres. Only two privately owned parcels (totaling 38 acres) remain to be acquired to enable a floodplain reconnection project. The river is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Seattle will contribute \$808,200 in

Salmon Recovery Grants Awarded



cash and a state grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1040)

Sound Salmon Solutions Beginning Restoration of Cherry Creek

Grant Awarded: \$142,119

Sound Salmon Solutions will use this grant to complete designs and restore the first 175 feet of Cherry Creek, beginning at the creek's mouth on private property. Work will include removing invasive Himalayan blackberry and knotweed; removing rip rap; re-sloping the creek's banks and widening the creek's mouth, creating a small island to mimic historic conditions at the mouth; and placing tree root wads and logs in the banks and around the island. The work will create spawning and rearing habitat for Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The project also will benefit steelhead, and coho, chum, and pink salmon. Creek Cherry Creek is a tributary to the Snoqualmie River north of Duvall in King County. This is the first phase of a three-phase project. Sound Salmon Solutions will contribute \$70,000 in a local grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (14-1226)

Sound Salmon Solutions Restoring Cherry Creek

Grant Awarded: \$764,565

Sound Salmon Solutions will use this grant to restore Cherry Creek upstream from its confluence with the Snoqualmie River, north of Duvall. Crews will remove rip rap bank armoring, re-contour the banks and build planting benches, install logjams and other large pieces of woody materials in the creek, excavate and widen a historic channel, and replace a failing bridge with a livestock bridge. Cherry Creek is core summer salmon habitat. Coho and winter steelhead are known to spawn in the upper portions of Cherry Creek, while other salmon species use the lower portions of the sub-basin for spawning and rearing. Cherry Creek is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum and pink salmon. This is the second and third phases of the restoration project. Sound Salmon Solutions will contribute \$135,435 in a local grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1716)

Tukwila Replacing the Riverton Creek Flapgate with a Bridge under the Green River Trail

Grant Awarded: \$551,070

The City of Tukwila will use this grant to improve habitat along Riverton Creek and restore fish access between the creek and the Duwamish River. The City will place large pieces of wood in the creek channel, replace two perched culverts and flapgates with a bridge that supports the Green River Trail, remove invasive plants, and plant native plants along on the creek banks and wetland. The site is next to the State Route 599 off-ramp to Tukwila International Boulevard. The City also will have to build a wall to protect the southern Tukwila International Boulevard bridge

Salmon Recovery Grants Awarded



abutment. The work will provide rearing habitat for salmon species in the off-channel where the water is slower. The creek and river are used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. An interpretive sign will be installed to educate people about the restored habitat. The City of Tukwila will contribute \$97,248. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1892)

Tukwila

Grant Awarded: \$295,895

Restoring the Banks of Riverton Creek

The City of Tukwila will use this grant to complete the design, permitting, and construction of a project to restore fish access between the creek and the Duwamish River by removing a tide gate and culvert. The City will install a new pedestrian bridge and culvert for the Green River Trail and reinforce the adjacent Tukwila International Boulevard. In addition, the City will plant native trees and shrubs along more than a half-acre of Riverton Creek. The new creek bank plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The creek provides off-channel rearing habitat for Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The City of Tukwila will contribute \$52,217. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1048)

Kitsap County

Great Peninsula Conservancy

Grant Awarded: \$17,000

Assessing the Feasibility of Buying Ross Creek Estuary

The Great Peninsula Conservancy will use this grant to complete a feasibility study for a project to buy 4.8 acres of pristine estuarine habitat on Ross Creek in Port Orchard. The purchase of the land would increase the amount of protected estuary habitat in Sinclair Inlet. The creek and estuary are used by chum and coho salmon, sea-run cutthroat trout, and steelhead. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1035)

Great Peninsula Conservancy

Grant Awarded: \$236,225

Conserving Curley Creek and its Estuary

The Great Peninsula Conservancy will use this grant to buy about 30 acres encompassing lower Curley Creek, from the estuary to Sedgwick Road. This project will complete the acquisition of the remaining highest quality habitat for salmon species on lower Curley Creek. The creek and estuary are used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by

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fall and summer chum salmon. The Great Peninsula Conservancy will contribute \$41,725 in a private grant and donations of volunteer labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1591)

Kitsap Conservation District

Grant Awarded: \$88,450

Assessing the Feasibility of Restoring the Dickerson Creek Watershed

The Kitsap Conservation District will use this grant to consider restoration alternatives and create a preliminary design to restore fish access to 1 mile of habitat in the upper Dickerson Creek watershed. Dickerson Creek is a tributary to Chico Creek, which is one of the highest priority salmon streams in Kitsap County. Before 2007, log weirs were installed to improve fish passage; however, erosion and flooding washed out the weirs and created partial fish blockages in three areas. These barriers limit fish access to about 1 mile of high quality spawning and rearing habitat. Restoration alternatives include removing roadbed fill in the floodplain, developing side channel habitat, and placing logs and tree root wads in streams to increase habitat complexity and improve floodplain connectivity. Additionally, the conservation district will develop a noxious weed removal and planting plan. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum salmon and cutthroat trout. The Kitsap Conservation District will contribute \$2,000 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1046)

Kitsap County

Grant Awarded: \$20,000

Removing Kitsap Shoreline Armor

Kitsap County will use this grant to remove a bulkhead at Suquamish (Port Madison), restoring 100 feet of shoreline. Removing bulkheads allows sediment to settle naturally on the beach, creating important habitat for smelt and sand lance, which salmon eat. This project builds on efforts to encourage private shoreline owners to voluntarily remove their bulkheads rather than replacing them. The Shore Friendly Kitsap program vetted the sites with a licensed geologist completing site-specific feasibility reports and investigating other factors such as structure setback, neighbor buy-in, septic location, and other utilities. This program will assist with economic hardship for the landowners who voluntarily restore their properties. Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act, use the area. Kitsap County will contribute \$5,000 from a state grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1045)

Mid Sound Fisheries Enhancement Group

Grant Awarded: \$59,212

Studying the Feasibility of Reconnecting the Point No Point Wetland

The Mid Sound Fisheries Enhancement Group will use this grant to evaluate the feasibility of, and identify a conceptual design for, a project to reconnect the Point No Point wetland and restore the salt marsh. Reconnecting the salt marsh will open nearshore estuary habitat critical

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for the survival of Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Mid Sound Fisheries Enhancement Group will contribute \$10,450 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1032)

Mountaineers Foundation

Grant Awarded: \$65,000

Designing the Restoration of the Chico Creek Confluence

The Mountaineers Foundation will use this grant to complete design and permitting for a project at the confluence of Wildcat and Lost Creeks, which join to create Chico Creek. The restoration project, which involves placing large woody materials in the creek, will improve stream, shoreline, and floodplain habitat along 1,000 feet of the creek. The work will restore habitat complexity, stabilize the creek banks, restore the shoreline plants, partially reconnect the floodplain, and increase the ability of the area to handle flooding. The creek is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum salmon and cutthroat trout. The Mountaineers Foundation will contribute \$17,000 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1072)

Wild Fish Conservancy

Grant Awarded: \$34,671

Designing Restoration of Finn Creek

The Wild Fish Conservancy and partners will use this grant to produce preliminary design drawings for a project to remove a tide gate and culvert on Finn Creek, opening 2 miles of habitat to salmon and steelhead at risk of extinction. The work will occur at the downstream-most quarter-mile of Finn Creek where it is ditched next to Norwegian Point County Park in Hansville. The Wild Fish Conservancy will explore alternatives for restoring the habitat, which could include removing the tide gate at the stream mouth and removing the culvert, which is a large pipe carrying the creek under land. The culvert not only blocks fish passage but disturbs the natural flow of sediment on the beach. The design could include work that would restore tidal inundation at the stream mouth and naturalize the ditched creek through Norwegian Point County Park. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1596)

More projects in Kitsap County are listed under "Multiple Counties" at the end of this document

Salmon Recovery Grants Awarded



Kittitas County

Mid-Columbia Fisheries Enhancement Group Fixing a Yakima River Side Channel

Grant Awarded: \$164,018

The Mid-Columbia Fisheries Enhancement Group will use this grant to rehabilitate a side channel and tributary to the Yakima River, in Kittitas County. In 1998, the Department of Fish and Wildlife installed a channel-spanning weir to direct water into a side channel of the Yakima River. In the spring and summer, the Bull Canal Company pulls water from the side channel into a pipe for irrigation. In August, the side channel ends up with no water, stranding fish. Not having enough water in the side channel, the company pulls water from Wilson Creek, exacerbating high water temperatures and poor habitat conditions there. To reduce fish deaths in the side channel and improve the water temperatures in Wilson Creek, the fisheries enhancement group will remove the gated culverts in the side channel and replace them with a bridge or culvert to allow better water flow. It also will regrade the accumulated material downstream of the gated culverts to restore water flow and reduce fish stranding, regrade 200 feet at the side channel outlet where a steep drop partially blocks juvenile fish, and build wood structures on the left bank of the Yakima River. The wood structures will slow the river, which reduces erosion and the amount of sediment in the river. A slower river allows small gravels to settle to the river bottom for spawning areas. Finally, the structures will change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by Chinook and coho salmon. The Mid-Columbia Regional Fisheries Enhancement Group will contribute \$34,636 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1179)

Mid-Columbia Fisheries Enhancement Group Reconnecting the Swauk Creek Floodplain

Grant Awarded: \$85,000

The Mid-Columbia Fisheries Enhancement Group will use this grant to reconnect the Swauk Creek floodplain to improve habitat for salmon. The creek is a tributary to the upper Yakima River in Kittitas County and offers spawning and rearing habitat for steelhead, Chinook salmon, and trout. Historical land use and proximity to U.S. Highway 97 have damaged the creek's floodplain function and habitat. The fisheries enhancement group, working with the state Department of Transportation and the U.S. Forest Service, will place large wood in the creek to slow the water and allow sediment and rocks to settle to the bottom, raising the streambed to allow frequent connection with the historic floodplain. Crews also will place individual large logs and tree root wads in the creek and on the floodplain. The wood creates places for fish to rest and hide from predators. It also changes the flow of the creek, creating riffles and deep cold pools, giving fish more varied habitat. Crews will remove or lower the railroad and road berms that constrain the creek. They also will plant trees and plants along the creek banks. The new

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shoreline plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. The roots of the plants help keep the soil from entering the water and burying spawning gravel. Finally, crews will change the inlet elevation of culverts in a meadow west of the project area to trap water on the old floodplain. The project is expected to result in improved spawning and rearing habitat for salmon. The creek is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by resident rainbow and cutthroat trout. The Mid-Columbia Regional Fisheries Enhancement Group will contribute \$15,000 in a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1239)

Mid-Columbia Fisheries Enhancement Group Taking Care of Restored Yakima River Basin Areas

Grant Awarded: \$219,101

The Mid-Columbia Fisheries Enhancement Group will use this grant to take care of seven restoration sites. The fisheries enhancement group will control weeds, plant, and fence 67.5 acres along 4 miles of Reecer, Cowiche, Wilson, and Oak Creeks and the Cle Elum and Yakima Rivers, in Kittitas County. These areas were planted or seeded in 2016 and 2017. In addition, the group will maintain 3.5 miles of cattle exclusion fencing along 2 miles of Jack Creek to protect the creek from sediment, plant damage, soil compaction, and cow manure. The creeks and rivers are used by steelhead and bull trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The Mid-Columbia Fisheries Enhancement Group will contribute \$38,940 in a federal grant and donations of cash and labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1173)

Mid-Columbia Fisheries Enhancement Group Trapping Large Wood in the North Fork Teanaway River

Grant Awarded: \$394,000

The Mid-Columbia Fisheries Enhancement Group will use this grant to design and build structures to snag and retain large wood in 3 miles of the North Fork Teanaway River, north of Cle Elum. The structures create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river. A slower river allows small gravels to settle to the river bottom, covering exposed bedrock and creating spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. In addition to building the structures, the fisheries enhancement group will grade remnants of a historic splash dam to reduce constraints on the river and to reconnect a side channel. The Teanaway River forks have legacies of splash damming, logging, grazing, and large wood removal. Each fork displays exposed bedrock, too few pools, water that gets too warm, and not enough large wood pieces. This project will be a first step in restoring ecosystem function and resiliency in the North Fork Teanaway River, and will directly benefit steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act,

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and Chinook salmon. The Mid-Columbia Regional Fisheries Enhancement Group will contribute \$73,450 in donations of labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1177)

More projects in Kittitas County are listed under "Multiple Counties" at the end of this document

Klickitat County

Columbia Land Trust

Grant Awarded: \$344,768

Conserving Land Near the Klickitat Canyon Bridge

The Columbia Land Trust will use this grant to buy 281 acres and conserve 1.84 miles of riverbank along the Klickitat River. The land is north and east of the Glenwood-Goldendale Road between the Klickitat Hatchery and Leidl Park. The land is a central link between more than 27 conserved river miles on the Klickitat River. Conservation would enable restoration through the entire 27-mile corridor, protect existing public river access, and protect against threats including logging and development near the river. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by Chinook salmon. The Columbia Land Trust will contribute \$60,900. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1275)

Underwood Conservation District

Grant Awarded: \$254,019

Installing a Fish Screen for the White Salmon Irrigation District

The Underwood Conservation District will use this grant to replace the White Salmon Irrigation District's headworks and conveyance system that pulls water from Buck Creek. The point of the water diversion is not screened, and the diversion dam in Buck Creek blocks fish passage. The conservation district will build a roughened channel in Buck Creek, install a fish screen, and replace about 1.5 miles of open ditch and leaking pipe with new pipe. The work will keep saved water in Buck Creek. The river is used by Chinook and coho salmon and steelhead. The White Salmon Irrigation District will contribute \$45,000 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1282)

Lewis County

Cowlitz Indian Tribe

Grant Awarded: \$599,723

Improving Salmon Habitat in the Cispus River

The Cowlitz Indian Tribe will use this grant to place large logs and tree root wads in more than a quarter-mile of the Cispus River to create more habitat for Chinook and coho salmon and steelhead. Overall, the logs and tree root wads will change the flow of the river, creating riffles

Salmon Recovery Grants Awarded



and deep cold pools as well as places for fish to rest and hide from predators. They also will slow the water, allowing small gravel to settle to the bottom for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the river. The logs and root wads also will divert more water to a half-mile long side channel, providing rearing habitat for the salmon. The work will be done in the Cowlitz River, near the confluence with Yellowjacket Creek, in Lewis County. The Cascade Forest Conservancy staff and volunteers will plant trees and shrubs on 22.5 acres of disturbed areas and areas identified by U.S. Forest Service as lacking in riverbank forest diversity or density. The Cowlitz Indian Tribe will contribute \$599,723 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1113)

Lewis County

Grant Awarded: \$187,973

Removing a Barrier to Fish Passage in a Stearns Creek Tributary

The Lewis County Public Works Department will use this grant to remove a barrier to fish passage in an unnamed tributary of Stearns Creek. The barrier is a culvert, which is a large pipe that carries the creek under Pleasant Valley Road. When the culvert is removed, fish will have access to 2.4 miles of spawning habitat and 1.5 acres of rearing habitat. The tributary is used by coho salmon and searun and resident cutthroat trout. Lewis County will contribute \$188,500 from a federal grant and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1157)

Lewis County

Grant Awarded: \$55,750

Removing Barriers in Berwick Creek and Realigning the Creek

The Lewis County Public Works Department will use this grant to design a project to remove a barrier to fish passage in Berwick Creek and move a part of the creek channel to its historic floodplain. The barrier is a concrete box that carries the creek under Logan Hill Road. No fish are able to pass through the box because the slope is too steep. Replacing the box will give coho salmon, winter steelhead, and searun and resident cutthroat trout seasonal access to nearly a half-mile of habitat. The County also plans to move 500 feet of the creek, which runs along the road, into the adjacent historic floodplain. The new alignment will provide a more natural channel form. Other components of the project will remove 250 feet of bank armoring, add floodplain terraces and streamside plantings, and place large woody materials to add more varied types of habitat. Lewis County will contribute \$55,750 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1148)

Lewis County Conservation District

Grant Awarded: \$60,776

Designing the Replacement of Culverts Blocking Fish Passage

The Lewis County Conservation District will use this grant to create preliminary designs and obtain permits to remove two culverts blocking fish passage under Lucas Creek Road, in Lewis County. Culverts are structures, usually large pipes, which carry streams under roads. Both of the

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culverts are preventing two-thirds of the fish from passing through because they are too steep and the outfall drop is too high. When fixed, the two projects will open 3.4 miles of habitat in two streams entirely in forests. This project will open habitat for coho salmon, steelhead, and coastal cutthroat and resident trout in the North Fork Newaukum River watershed. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1126)

Lewis County Conservation District **Grant Awarded: \$96,572** **Fixing Barriers to Fish Passage in the Middle Fork Newaukum River**

The Lewis County Conservation District will use this grant to remove three barriers to fish passage in the Middle Fork Newaukum River. The barriers are undersized culverts, which are pipes that carry streams under roads. This trio of culverts are near one another. When fixed, additional habitat will be open to coho salmon, steelhead, and resident and searun cutthroat trout. The Lewis County Conservation District will contribute \$100,000 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1221)

Mason County

Forterra **Grant Awarded: \$154,608** **Conserving Little Skookum Inlet Shoreline**

Forterra will use this grant to buy a voluntary land preservation agreement, also called a conservation easement, on 816 acres along the southern shore of Little Skookum Inlet in Mason County. The land consists of forests, wetlands, and shoreline habitat, and includes nearly 2 miles of Puget Sound shoreline. The freshwater habitats are home to chum salmon. The marine shoreline provides habitat for Chinook and coho salmon, steelhead, and cutthroat trout. The shoreline and bedlands of the inlet also are highly productive shellfish growing areas. The landowner wishes to sell an easement, which would prevent development on the land and expand the no-cut buffers from 50 feet to 100 feet along the shoreline and 150 feet along the streams. Protection of the land will benefit salmon species and the fish that salmon eat. Forterra will contribute more than \$1.6 million in other state grants. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1111)

Great Peninsula Conservancy **Grant Awarded: \$93,000** **Conserving McLane Cove Shoreline and Estuary**

The Great Peninsula Conservancy will use this grant to buy about 2.5 acres of a coastal inlet estuary near the head of McLane Cove, in Pickering Passage in Mason County. The project protects intact shoreline and nearshore habitat that benefits multiple species of salmon. The estuary provides places for fish to grow and transition between freshwater and saltwater. The shoreline is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of

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concern; and by chum salmon and cutthroat trout. The Great Peninsula Conservancy will contribute \$17,000 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1135)

Mason Conservation District

Grant Awarded: \$37,398

Controlling Invasive Knotweed along the Shorelines

The Mason Conservation District will use this grant to control invasive knotweed along Mill and Goldsborough Creeks, replant already treated areas, and maintain 47 acres of shoreline plantings in the Mill, Goldsborough, Deer, and Cranberry watersheds. Knotweed is a serious threat to shoreline habitats because it grows vigorously, creating dense colonies that make it hard for native plants to survive. Knotweed's ability to out-compete other plants alters the natural ecosystem, and once established, is very difficult to get rid of. The Goldsborough and Mill knotweed assessment showed a low level of infestation so the district will try to eliminate the weeds there quickly. The watersheds are used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum salmon and cutthroat trout. The Mason Conservation District will contribute \$13,000 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1134)

Mason Conservation District

Grant Awarded: \$804,350

Designing the Relocation of Skokomish Valley Road

The Mason Conservation District will use this grant to relocate a portion of Skokomish Valley Road to reconnect about 60 acres of floodplain, remove 800 feet of rock armor, and provide opportunity for additional habitat restoration actions. The Skokomish River is used by Chinook and chum salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The river also is used by coho salmon, which is a federal species of concern, and by cutthroat trout. The Mason Conservation District will contribute \$141,950 in a local grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1487)

Mason Conservation District

Grant Awarded: \$347,661

Enhancing Shorelines in Southern Hood Canal

The Mason Conservation District will use this grant to control invasive knotweed, and to plant trees and bushes on nearly 400 acres of shoreline in the Skokomish River watershed. This work will continue efforts to restore natural shoreline function within the watershed. Riverbank plantings help shade the water, cooling it for fish and offering places for salmon to rest and hide from predators. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The Skokomish River is used by Chinook and chum salmon and steelhead, all of which are species listed as threatened with extinction under the federal

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Endangered Species Act. The river also is used by coho salmon, which is a federal species of concern. The Mason Conservation District will contribute \$61,700 in another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1489)

Mason Conservation District Restoring a Gosnell Creek Reach

Grant Awarded: \$224,503

The Mason Conservation District will use this grant to restore a Gosnell Creek reach, near Shelton. The land along this reach has been converted to pasture, the shoreline trees are gone, and livestock waded in the stream. Immediately, upstream of this reach is some of the best spawning and rearing habitat in the watershed for coho salmon and steelhead. To improve Gosnell Creek, the district will place large tree root wads and logs in a half-mile of the creek, plant native trees and shrubs on 7 acres of its shoreline, install about 1 mile of fencing to keep livestock out of the creek, and replace a bridge. Placing tree root wads and logs in a creek will create places for fish to rest and hide from predators. It also slows the water, which reduces erosion and the amount of sediment in the creek and allows small gravel to settle to the creek bottom for spawning areas. Finally, it changes the flow of the creek, creating riffles and deep cold pools, giving fish more varied habitat. The new shoreline plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects fish eat and places for them to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act; coho salmon, which is a federal species of concern; and chum salmon. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. The Mason Conservation District will contribute \$53,420 in a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1567)

Mason Conservation District Supporting Skokomish River Restoration

Grant Awarded: \$2,403,627

The Mason Conservation District will use this grant to support completion of final designs and obtaining the land needed for a U.S. Army Corps of Engineers' restoration of the Skokomish River. The project will design the placement of logs and tree root wads in the South Fork Skokomish River, removal of a levee at the confluence of the North and South Forks Skokomish Rivers, the set back of a levee, and the reconnection of a side channel in the Skokomish River. The Skokomish River is used by Chinook and chum salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The river also is used by coho salmon, which is a federal species of concern, and by cutthroat trout. The Mason Conservation District will contribute \$450,000 in a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1496)

Salmon Recovery Grants Awarded



South Puget Sound Salmon Enhancement Group Identifying Barriers to Fish Passage

Grant Awarded: \$80,158

The South Puget Sound Salmon Enhancement Group will use this grant to identify barriers to fish migration, prioritize them for funding, and create preliminary designs for two priority sites. The inventory will focus on the John's, Skookum, and Hiawata Creeks watersheds but also will provide information about other systems, including Mill, Goldsborough, Campbell, and many independent tributaries. Working with the Washington Department of Fish and Wildlife and Mason County, the salmon enhancement group will synthesize survey data into a database for mapping and prioritization. Outdated or incomplete surveys will be updated to fill data gaps. Habitat surveys will be conducted for at least the top six barriers, of which the top two will have preliminary designs completed. The watersheds are used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum salmon and cutthroat trout. The Puget Sound South Puget Sound Salmon Enhancement Group will contribute \$15,000 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1138)

South Puget Sound Salmon Enhancement Group Removing Fish Passage Barriers on Coffee Creek

Grant Awarded: \$404,343

The South Puget Sound Salmon Enhancement Group and Mason County will use this grant to remove two barriers to fish passage in the South and West Forks of Coffee Creek, in the Goldsborough Creek basin. The barriers are culverts, which are large pipes or other structures that carry streams under roads. The culvert in the South Fork Coffee Creek under Deegan Road completely blocks fish and the one in the West Fork Coffee Creek under Shelton Valley Road partially blocks fish. When removed, salmon will be able to reach 4.2 miles of rearing and spawning habitat. The creek forks are used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. This project is part of a larger, seven barrier package that is seeking additional grants. The South Puget Sound Salmon Enhancement Group will contribute \$71,355 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1675)

More projects in Mason County are listed under "Multiple Counties" at the end of this document

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Okanogan County

Cascade Columbia Fisheries Enhancement Group **Grant Awarded: \$150,150** **Assessing Barriers to Fish Passage in the Methow River Basin**

The Cascade Columbia Fisheries Enhancement Group will use this grant to complete a comprehensive assessment of all fish passage barriers and diversions in the Methow River basin, and to strategically prioritize sites for correction. The Washington Department of Fish and Wildlife's database in the Methow River basin indicates there are 278 known human-made fish passage sites, with 75 percent partially or fully blocking fish. About 90 percent of these barriers were surveyed more than a decade ago, and data may be incomplete, inaccurate, or not match current standards to allow for prioritization. The Methow River is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead, which is a species listed as threatened. The Cascade Columbia Fisheries Enhancement Group will contribute \$56,500 from another grant and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1230)

Methow Salmon Recovery Foundation **Grant Awarded: \$89,873** **Assessing Bull Trout in the Methow Subbasin**

The Methow Salmon Recovery Foundation will use this grant to assess the bull trout population in the upper Columbia River Salmon Recovery Region and to identify and prioritize restoration projects. The project will focus on reaches where a majority of bull trout spawning is concentrated. The foundation will assess distribution of bull trout, employ standardized regional protocols, and strengthen data management and results dissemination. The information will be used to select and develop habitat projects focused on improving fish passage, habitat complexity, water quality, and shoreline condition. Bull trout is a species listed as threatened with extinction under the federal Endangered Species Act. The Methow Salmon Recovery Foundation will contribute \$18,159 from federal and private grants. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1226)

Methow Salmon Recovery Foundation **Grant Awarded: \$247,576** **Conserving a Middle Reach of the Methow River**

The Methow Salmon Recovery Foundation will use this grant to buy about 17 acres of floodplain along the Methow River. The land is in the "Sugar Levee" area of the middle Methow reach and includes about a quarter-mile of the river and its side channels. This project builds on four properties previously acquired for protection and future restoration. The landowner is intending to subdivide and sell the land for development of up to four homes. If sold, there likely would be no future restoration of floodplain processes in a large segment of the surrounding reach. The river is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead, which is a species listed as threatened with

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extinction. The Methow Salmon Recovery Foundation will contribute \$43,690 from a local grant. Visit RCO's online Project Snapshot [for more information and photographs of this project.](#) (17-1180)

Pacific County

Cowlitz Indian Tribe

Grant Awarded: \$66,286

Designing the Grays Pond Reconnection

The Cowlitz Indian Tribe will use this grant to develop a preliminary design for a project to restore fish access to the relict, 4-acre Grays Pond, in Pacific County. The human-made pond was used by smolts but now blocks fish from passing through. The Tribe will survey and assess the surrounding topography, bathymetry, and hydrology, and inspect a screened diversion intake weir to create a list of treatment alternatives to restore fish passage to the off-channel pond, as well as to add complexity to the pond habitat. The Tribe will design the placement of large woody materials and develop a shoreline planting plan to enhance native tree and shrub habitat. This unique site could provide an excellent place for salmon to rest and grow in the winter. It is one of the only protected and stable off-channel areas in the entire Grays River subbasin. The river is used by coho salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by steelhead, which is important to the recovery of the lower Columbia River steelhead species. Visit RCO's online Project Snapshot [for more information and photographs of this project.](#) (17-1067)

Pacific Conservation District

Grant Awarded: \$52,178

Designing the Restoration of Salmon Creek Shoreline

The Pacific Conservation District will use this grant complete preliminary engineering designs for the restoration of shoreline and stream habitat along Salmon Creek, east of Naselle. The creek is rapidly eroding its banks, destroying shoreline plants and dumping too much sediment into the water. The resulting banks are high and almost completely vertical. Restoration designs are expected to include bank re-sloping, shoreline plantings, relict channel reconnection, and in-stream wood structure installations. The creek is used by coho, Chinook, and chum salmon, and steelhead and cutthroat trout. Visit RCO's online Project Snapshot [for more information and photographs of this project.](#) (17-1186)

Pacific Conservation District

Grant Awarded: \$135,950

Inventorying Barriers to Fish Migration in the Willapa Bay Watershed

In partnership with the Grays Harbor Conservation District, the Pacific Conservation District will use this grant to complete a comprehensive assessment of barriers to migrating fish in the Willapa Bay watershed. The conservation district will focus on places where streams cross under county and state roads as well as on private non-industrial forestland. The Willapa Bay

Salmon Recovery Grants Awarded



watershed encompasses 1,103 square miles that are drained by more than 1,470 miles of streams. Pacific County alone maintains 350 miles of roads that cross streams bearing migrating fish, including Chinook, coho, and chum salmon; and steelhead and resident trout. The conservation district will enter barrier evaluation results into the state barrier database and use the results to develop a prioritized list of barriers to be removed. The Pacific Conservation District will contribute \$23,998 in a private grant and donations of cash and labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1254)

The Nature Conservancy

Grant Awarded: \$103,265

Removing a Failing Road at the Ellsworth Creek Estuary

The Nature Conservancy will use this grant to decommission the last high priority failing road next to the Ellsworth Creek estuary, in Pacific County. The Nature Conservancy will remove permanently more than a quarter-mile of a failing logging road that crosses three streams and excavate the undersized, rusted culverts and associated fill. Culverts are structures, usually large pipes, which carry streams under roads. Failure of the culverts and stream crossings would cause the fill to spill into the estuary below, impacting coho, Chinook, and chum salmon, and steelhead. When the project is finished, the three stream crossings will be restored to natural grades and western red cedar and Sitka spruce seedlings will be planted on 2 acres of shoreline. This project continues advancing the Ellsworth Creek watershed recovery by reducing the risk of catastrophic road failures, improving overall stream habitat, reducing habitat fragmentation caused by roads, restoring natural and self-sustaining processes to the watershed, and protecting the water quality of the estuary for rearing and overwintering salmon. The Nature Conservancy will contribute \$18,310 in a state grant and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1237)

Pend Oreille County

The Lands Council

Grant Awarded: \$342,000

Restoring the West Branch LeClerc Creek

The Lands Council will partner with the U.S. Forest Service to use this grant to restore a reach of West Branch LeClerc Creek near the Diamond City Mill site, in the Colville National Forest in Pend Oreille County. Crews will excavate sediment, which will reconnect about a half-mile of floodplain to the creek. Crews then will place logs with tree root wads in the restored channel and in an additional 2 miles of creek above and in a half-mile below the restored stream reach and floodplain reconnection. The West Branch Le Clerc Creek and its fish-bearing tributaries are designated bull trout critical habitat by the U.S. Fish and Wildlife Service. The U.S. Forest Service will contribute \$60,500. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1287)

Salmon Recovery Grants Awarded



Pierce County

Forterra

Grant Awarded: \$152,384

Conserving South Prairie Creek Floodplain

Forterra will use this grant to buy 15.53 acres of floodplain and shoreline on South Prairie Creek near Orting to permanently protect the land and productivity of the creek from development impacts. Forterra then will design a conceptual restoration plan that will improve habitat in the creek and reconnect the creek to its floodplain. The final design and restoration work itself will occur during a second phase of this project. South Prairie Creek is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Chum and pink salmon and cutthroat trout also use the creek. Forterra will contribute \$42,500 in a private grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1457)

Great Peninsula Conservancy

Grant Awarded: \$60,795

Conserving East Fork Rocky Creek

The Great Peninsula Conservancy will use two grants along with previously funded phases and Pierce Conservation Futures³ to buy 34 acres of land in the lower reach of the Rocky Creek watershed. The land encompasses undeveloped, high quality, wildlife habitat including streams supporting salmon, shoreline forests, and wetlands. The fish-bearing streams protected as part of the project include the East Fork Rocky Creek and an unnamed tributary of the creek. Rocky Creek supports steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act; coho salmon, which is a federal species of concern; chum salmon; and cutthroat trout. The Great Peninsula Conservancy will contribute \$81,000 in donations of property interest. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1589)

Nisqually Land Trust

Grant Awarded: \$223,228

Conserving Busy Wild Creek

The Nisqually Land Trust will use this grant to buy up to 1,385 acres of commercial forestland along Busy Wild Creek, in Pierce County. This is part of a larger project to conserve about 4 miles of Busy Wild Creek, 3.8 miles of tributary streams, the steep bluffs on the northeast side of the river, and adjacent forests. The bluffs and upland on the southwest side of the river are owned by Washington State and managed as a part of Elbe Hills State Forest. Busy Wild Creek is in the upper reaches of the Mashel River, a tributary of the Nisqually River. The creek has been

³Conservation futures are a portion of property taxes used by local governments to buy land or development rights to protect natural areas, forests, wetlands, and farms.

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identified as a particularly important tributary for protecting and restoring habitat for steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Nisqually Land Trust will contribute \$53,000 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1086)

Nisqually Land Trust

Grant Awarded: \$1,040,900

Conserving the North Shoreline of the Nisqually River's Wilcox Reach

The Nisqually Land Trust will use this grant to buy 185 acres, including 151 acres of shoreline, along the Wilcox reach of the Nisqually River, near Yelm in Pierce County. The land is one of the last large undeveloped shoreline properties on the Nisqually River. About 100 acres are in an extremely dynamic reach of the river's channel migration zone. If developed, the land could hold up to 37 homes. This acquisition would prevent loss of shoreline trees and plants and habitat degradation from logging, development, livestock grazing, and off-road vehicle use. This project also would connect two substantial blocks of permanently protected Nisqually River shoreline. The river is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum and pink salmon. The Nisqually Land Trust will contribute \$390,000 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1450)

Nisqually Land Trust

Grant Awarded: \$179,951

Controlling Weeds along the Ohop Creek

The Nisqually Land Trust will use this grant to control weeds on 32 acres along Ohop Creek, one of the two main tributaries to the Nisqually River. The creek provides spawning and rearing habitat for Chinook salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and for coho salmon, which is a federal species of concern. This project is part of a larger project that will include restoration and was funded partially by the Salmon Recovery Funding Board in December. Permanent protection and floodplain restoration will allow natural stream and floodplain processes to occur. The land includes than 1,000 feet of Ohop Creek, 6.5 acres of predominantly fallow pasture and old farmyard north of the creek, and 25.5 acres south of the creek, including fallow pasture in the Ohop floodplain and forested bluff. The Nisqually Land Trust will contribute \$34,975 from another grant and donations of volunteer labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1453)

Pierce Conservation District

Grant Awarded: \$95,495

Conserving South Prairie Creek Floodplain

The Pierce Conservation District will use this grant to buy about 5 acres of floodplain shoreline in preparation for future restoration projects in the South Prairie Creek basin, which is tributary to the Carbon and Puyallup Rivers. The goal of this project is to protect the property from

Salmon Recovery Grants Awarded



development. The land is next to a planned project that will reestablish 60 acres of forested floodplain, adding a valuable source of natural wood recruitment to the creek. The Puyallup River is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by pink and chum salmon. The Pierce Conservation District will contribute \$16,855. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1549)

Pierce County

Grant Awarded: \$181,613

Buying Land along Alward Road for a Setback Levee

The Pierce County Planning and Public Works Department will use this grant to buy one or two parcels of land along the Carbon River and Alward Road, near Orting. The County has been buying land there for a setback levee since 1989 with the goal of restoring the area and reconnecting 150 acres of floodplain. There are 28 private floodplain parcels remaining. Removal of the existing levee will promote the creation of a variety of habitats including side channels, backwater channels, deep complex pools, and spawning and rearing areas. There is very little floodplain side channel habitat in this reach of river, which makes this project so valuable. Property owners have been contacted and have indicated their willingness to sell their land. The grant also would cover removal of all existing structures. The river is used by Chinook salmon, and steelhead both of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by bull trout. Pierce County will contribute \$32,050 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1355)

Pierce County

Grant Awarded: \$215,050

Studying the Feasibility of Building a Setback Levee on the Carbon River

The Pierce County Surface Water Management Division will use two grants grant to complete a feasibility report for setting back a levee on more than a half-mile of the Carbon River to reconnect the river with its floodplain. The Carbon River moved from the right bank to the left bank and now pushes against the levee at this location. This project would be the first phase of the project, located south of Bridge Street in Orting. The setback levee will increase fish habitat and protect against floods. The river is used by Chinook salmon and steelhead, both which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by bull trout. Pierce County will contribute \$37,950. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1545)

Salmon Recovery Grants Awarded



South Puget Sound Salmon Enhancement Group Restoring South Prairie Creek

Grant Awarded: \$1,303,434

The South Puget Sound Salmon Enhancement Group and partners will use this grant to restore .6 mile of South Prairie Creek and its floodplain, east of Orting. The partners will create a side channel to the creek and then install a channel-spanning engineered logjam at the inlet of the newly created side channel. The goal of this project is to improve habitat to support juvenile rearing, adult spawning, and egg incubation for Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act; coho salmon, which is a federal species of concern; chum and pink salmon; and cutthroat trout. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. The South Puget Sound Salmon Enhancement Group will contribute \$291,779 from another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1577)

Pierce County

Grant Awarded: \$76,000

Studying the Feasibility of Fish Passage in Purdy Creek

The Pierce County Surface Water Management Division will use this grant to complete a feasibility study for providing fish passage in Purdy Creek at 160th Street Northwest, which is the county line and jointly owned by Kitsap County. Once complete, the project will provide fish access to more than 5 miles of habitat upstream. Chum salmon are observed annually up to the base of the culvert, which is a large structure, usually a pipe, that carries streams under roads. The habitat upstream is capable of supporting steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and coho and chum salmon and coastal cutthroat trout. Pierce and Kitsap Counties will contribute \$13,500. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1460)

More projects in Pierce County are listed under "Multiple Counties" at the end of this document

San Juan County

Friends of the San Juans

Grant Awarded: \$177,040

Conserving San Juan Island Shorelines

The Friends of the San Juans and the San Juan Preservation Trust will use this grant to conserve 20 acres of shoreline through voluntary land preservation agreements, also called conservation easements. The partners recently completed a multi-year pilot shoreline easement project that included identifying priority locations, reaching out to landowners, and developing a multi-property easement tool to reduce appraisal costs while maintaining accuracy and fairness of property valuation. In the pilot project, the partners were able to conserve seven adjacent

Salmon Recovery Grants Awarded



shoreline parcels protecting more than a half-mile of shoreline in the highest priority salmon recovery area. This project will enable the partners to continue the work. Proposed work includes reaching out to landowners, expanding use of the pilot project's valuation and easement prescription tools, and conserving additional land. The Friends of the San Juans will contribute \$51,884 in donated property interest and a private grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1703)

Friends of the San Juans

Grant Awarded: \$404,531

Restoring Sucia Islands' Mud Bay Salt Marsh

The Friends of the San Juans will use this grant to remove a low-lying coastal road, a pipe, and a retaining wall to allow the tide to flow more freely between Puget Sound and Sucia Island's Mud Bay salt marsh. The road and retaining wall effectively kike off the salt marsh, and combined with a single, 18-inch corrugated plastic pipe, also called a culvert, restrict the tidal exchange between the salt marsh and Puget Sound. The culvert also prevents fish, nutrients, and prey from passing into the salt marsh. Removing the road will restore habitat. The grant also will pay to provide alternative access to the east side of the state park by installing a new box culvert placed at the head of the marsh. Mud Bay is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Friends of the San Juans will contribute \$71,388 in a federal grant and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1143)

KWIAHT

Grant Awarded: \$75,785

Assessing Early Pacific Sand Lance Life History and Survival

The KWIAHT Center for the Historical Ecology of the Salish Sea will use this grant to complete a baseline assessment of Pacific sand lance on south Lopez Island beaches and surrounding sandy sea bottoms, which are significant nurseries for Chinook salmon. Chinook eat Pacific sand lance but relatively little is known about factors affecting the recruitment and abundance of the sand lance. During 3 years, KWIAHT will use specialized gear to collect sand lance, from larvae to adult, and zooplankton, which sand lance eat, as part of an ongoing Salish Sea marine survival study. KWIAHT will assess Pacific sand lances' seasonal diet, population structure, and timing of sexual maturation. KWIAHT will contribute \$57,645 in donations of cash, equipment, and labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1163)

San Juan Islands Conservation District

Conserving False Bay Creek Shoreline

Grant Awarded: \$88,235

The San Juan Islands Conservation District will use this grant to fence cattle out of False Bay Creek and provide a different cattle crossing elsewhere. The creek is perennial, drains the largest watershed on San Juan Island, and has high potential for the restoration of fish. Unfortunately, it also has poor water quality because of high bacteria counts from surrounding farms and cattle

Salmon Recovery Grants Awarded



grazing, and its shorelines have been degraded. The land being restored is directly upstream of the University of Washington Biological Preserve and downstream of the San Juan County Land Bank's False Creek Preserve. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December and will result in doubling the contiguous miles protected and restoration of 43 percent of the shoreline corridor bottom up from False Bay. The larger project will re-establish the ecological connection between False Bay and 1.2 miles and 8 acres of protected shoreline habitat. In addition, this project will improve immediately the water quality by removing livestock from the stream. The creek is used by coho salmon, which are a federal species of concern, and by cutthroat trout and chum salmon. The San Juan Islands Conservation District will contribute \$22,700. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1670)

Skagit County

Lummi Nation

Grant Awarded: \$101,709

Designing the Restoration of the South Fork Nooksack River's Cavanaugh-Fobes Reach

The Lummi Nation Natural Resources Department will use this grant to provide a preliminary design for up to 19 engineered logjams to restore habitat in the South Fork Nooksack River, near Hamilton. These logjams will create places for fish to rest and hide from predators. Engineered logjams also slow the river, which reduces erosion and the amount of sediment in the river. A slower river will allow small gravels to settle to the river bottom for spawning areas. The logjams will change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. Finally, the logjams will improve the connection between the South Fork Nooksack River and off-channel habitat. The risk of inaction to the south fork Chinook population is great. The total population has been estimated to be as few as 19 fish; however, Chinook runs increased this past year and higher returns are expected to continue. Ensuring that high quality, stable habitat is created as quickly as possible is critical to preserving the south fork Nooksack population. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1253)

Seattle

Grant Awarded: \$1,016,250

Conserving Skagit River Watershed Habitat

Seattle City Light and the Skagit Land Trust will use this grant to buy 46.5 acres of high quality Chinook salmon and steelhead habitat in the Skagit River system. This purchase will put Skagit River shoreline, floodplain, and side channels into permanent protection. The Skagit River is used by Chinook salmon, steelhead, and coastal bull trout, all of which are species listed as

Salmon Recovery Grants Awarded



threatened with extinction under the federal Endangered Species Act. Seattle City Light will contribute \$70,500 from a local grant. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1647)

Skagit County

Grant Awarded: \$200,000

Designing Changes to the South Fork Skagit River

The Skagit County Public Works Department will use this grant to complete a final design for a restoration project that will extend the off-channel network of the South Fork Skagit River and connect it both upstream and downstream, north of Conway. The area was restored more than a decade ago when starter channels were excavated and the perimeter levee was lowered. This work will increase the flow between the river and its off channels. The river is used by Chinook salmon, steelhead, and coastal bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum and pink salmon. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1652)

Skagit County

Grant Awarded: \$221,000

Removing the Martin Ranch Road Fish Passage Barrier

The Skagit County Public Works Department will use this grant to replace a culvert that blocks fish passage under Martin Ranch Road, south of Rockport, near Barnaby Slough. The department will design and build a new road crossing that will restore unobstructed fish access to nearly 5 acres of habitat for rearing and spawning salmon. Skagit River is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, by coho salmon, which is a federal species of concern, and by cutthroat trout. Skagit County will contribute \$39,000. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1160)

Skagit County

Grant Awarded: \$2,559,825

Restoring a Hansen Creek Reach

The Skagit County Public Works Department and the Skagit River System Cooperative will use two grants to do final designs, baseline assessments, and permitting for a project to restore Hansen Creek, a major tributary of the Skagit River in northern Puget Sound, between State Route 20 and Minkler Road. This will be the second major floodplain restoration project in this lower tributary, with the first occurring above State Route 20 in 2009. This project will create a new channel and floodplain west of the current channel in an area that is lower in elevation and already chronically flooded. The stream then will be moved from its current straightened and degraded location into the new channel. The work will improve floodplain habitat and water quality, while also decreasing fish stranding and the widespread flooding plaguing this area of Minkler Road. The partners also will plant native trees and shrubs in the new floodplain to help

Salmon Recovery Grants Awarded



shade the water, cooling it for fish. An expanded bridge will be constructed on Minkler Road to improve fish passage and further reduce the risk of flooding and road closure. The work will increase habitat by creating more than a half-mile of new channel and restoring about 80 acres of rearing habitat in this key watershed for Puget Sound recovery. Hansen Creek is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The partners will contribute \$649,631 from other grants. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1651)

Skagit Fisheries Enhancement Group **Grant Awarded: \$159,263** **Completing Designs for Restoration of the Skagit River Forks**

The Skagit Fisheries Enhancement Group will work in partnership with the Skagit Conservation District and the Washington Department of Fish and Wildlife to complete final designs and initiate permitting for restoration of the off-channel habitats of the Britt Slough floodplain wetland near the Skagit River Forks. When complete, the project will result in about 7.8 acres of additional rearing habitat for out-migrating Chinook salmon, steelhead, and other juvenile salmon species. The Skagit River is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1154)

Skagit Fisheries Enhancement Group **Grant Awarded: \$199,707** **Completing Designs for the Carey Slough Fish Passage Project**

The Skagit Fisheries Enhancement Group will use this grant to complete final designs to improve fish passage at the Lyman-Hamilton Road crossing of Carey's Slough in the town of Hamilton, in Skagit County. Ultimately, replacing this undersized fish passage structure with a larger one will provide greater salmon access to a historic side channel of the Skagit River. The Skagit River is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1155)

Skagit Fisheries Enhancement Group **Grant Awarded: \$107,467** **Maintaining the Banks of the Skagit River**

The Skagit Fisheries Enhancement Group will use this grant to maintain riverbank plantings along the middle Skagit River from Day Creek to Marblemount. The fisheries enhancement group will plant trees and shrubs where they have died, remove weeds, and plant new areas in five different locations. In all, more than 44 acres will be restored. The fisheries enhancement group will use crews from the Washington Conservation Corps and Whatcom County Department of Corrections to complete the work on land owned by the U.S. Forest Service,

Salmon Recovery Grants Awarded



Seattle City Light, and individuals. The new riverbank plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The Skagit River is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The Skagit Fisheries Enhancement Group will contribute \$19,171 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1156)

Skagit Fisheries Enhancement Group Planting Trees along the Skagit River Watershed

Grant Awarded: \$119,940

The Skagit Fisheries Enhancement Group will partner with the Upper Skagit Indian Tribe and use this grant to plant native trees and shrubs on 7.5 acres of floodplain and maintain 63.2 acres of previously planted floodplain. The work will be done on lands owned by Skagit County, Seattle City Light, and The Nature Conservancy, in the Skagit River watershed. Plantings help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel and reducing water quality. The Skagit River is used by Chinook salmon, steelhead, and coastal bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. The Skagit Fisheries Enhancement Group will contribute \$24,530 in donations of volunteer labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1650)

Skagit River System Cooperative Prioritizing Steelhead Fish Passage Projects

Grant Awarded: \$77,933

The Skagit River System Cooperative, working with several partners, will use this grant to identify and scope eight to ten fish passage restoration projects on local government roads and private property with willing landowners in the Skagit watershed. This project will fill an important knowledge gap about what fish barriers remain in the watershed and which ones will provide the most benefit to steelhead. The Skagit River is used by steelhead and Chinook salmon, both of which are species listed as threatened with extinction under the federal Endangered Species Act. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. The Skagit River System Cooperative will contribute \$35,259 from a private grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1642)

Salmon Recovery Grants Awarded



Skagit River System Cooperative Restoring Nookachamps Creek

Grant Awarded: \$220,653

The Skagit River System Cooperative will use this grant to restore Nookachamps Creek near Barney Lake and at the confluence of its east and west forks. Near Barney Lake, the cooperative will plant native trees and shrubs on 25 acres along Nookachamps Creek and in the Skagit River floodplain, install fences to keep cattle out of the creek, and control invasive weeds. The new trees will be maintained for at least 3 years following planting. The new plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and reducing water quality. In other work, the Skagit River System Cooperative will evaluate additional opportunities for placing large woody materials in Trumpeter Creek and in the Nookachamps forks to restore channel meanders and habitat complexity. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. The river is used by Chinook salmon, steelhead, and coastal bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Skagit River System Cooperative will contribute \$13,236 in state and federal grants. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1653)

Swinomish Tribe Restoring the Kukutali Preserve Tombolo

Grant Awarded: \$230,641

The Swinomish Tribe will use this grant to remove a road to restore the tombolo at the Kukutali Preserve on the Swinomish Reservation. The Kukutali Preserve, in Skagit Bay, is co-owned and co-managed by the Washington State Parks and Recreation Commission and the Swinomish Indian Tribal Community. The preserve encompasses 11 acres of tidelands and about 90 upland acres, including Kiket Island, a natural tombolo connecting Kiket and Fidalgo Islands, a natural coastal lagoon, and upslope wetlands. The southern tombolo is completely armored limiting natural habitat development. This project will remove a road and fill from the tombolo and allow tidal flow that historically maintained the lagoon, spit, and tombolo. Restored tidal processes will improve habitat quality to benefit salmon and forage fish. The bay is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by chum and pink salmon. The Swinomish Tribe will contribute \$40,702. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1644)

Washington Department of Fish and Wildlife Analyzing Restoration Alternatives on the South Fork Skagit River

Grant Awarded: \$177,894

The Department of Fish and Wildlife will use this grant to analyze restoration alternatives for Deepwater Slough, a tidally influenced reach of the South Fork Skagit River. The slough is in the

Salmon Recovery Grants Awarded



department's 17,000-acre Skagit Wildlife Area, which is managed to provide waterfowl forage and hunting opportunities. The department will consider a suite of alternatives from no restoration to full restoration, and will include an extensive public outreach process. The slough is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Department of Fish and Wildlife will contribute \$31,393 in staff labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1159)

Skamania County

Cowlitz Indian Tribe

Grant Awarded: \$154,038

Designing the Removal of the Kwoneesum Dam

The Cowlitz Indian Tribe will use this grant to create a preliminary design for removal of Kwoneesum Dam and restoring of watershed conditions in Wildboy Creek, in Skamania County. Removing the dam would give salmon access to 6.5 miles of habitat and restore riverine processes to Wildboy Creek and West Fork Washougal River watersheds. The design also will include increases to large wood complexity upstream and downstream of the dam, and shoreline vegetation improvements upstream of the dam. The creek is used by coho salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1069)

Mid-Columbia Regional Fisheries Enhancement Group

Grant Awarded: \$93,323

Designing the Restoration of the Wind River

Partnering with the U.S. Forest Service, the Mid-Columbia Fisheries Enhancement Group will use this grant to complete a preliminary design for restoration of Wind River habitat, in the Gifford Pinchot National Forest, in Skamania County. The restoration design will evaluate and plan for the following actions: opening up and reactivating relict side channels, placing large wood structures in the side channels and in the Wind River to create more varied habitat, removing an abandoned road and riprap, treating invasive plants, planting trees along the shoreline, removing concrete slabs and a portion of an earthen levee, and moving some campground infrastructure that is in the floodplain. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Mid-Columbia Regional Fisheries Enhancement Group and the U.S. Forest Service will contribute \$16,492 in staff labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1078)

Salmon Recovery Grants Awarded



Underwood Conservation District Enhancing Salmon Habitat in the Little Wind River

Grant Awarded: \$274,187

The Underwood Conservation District will use this grant to complete final design, permitting, and construction of the fourth phase of a restoration project in Little Wind River, a tributary to the Wind River, in Skamania County. The conservation district will place 50 or more large logs and tree root wads along nearly a half-mile of stream and along seven side channels of the Little Wind River. Overall, the logs and root wads change the flow of the river, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also slow the river, allowing small gravel to settle to the bottom for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the river. The conservation district also will thin alder trees and plant the riverbanks with conifer trees. Riverbank plantings will help shade the water, keeping it cool for fish. The plants also drop branches and leaves into the water, which provide food for the insects that salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The river is used by lower Chinook and coho salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The U.S. Forest Service, Bonneville Power Administration, and a local landowner will contribute \$85,000 in grants and donations of labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1083)

Snohomish County

Adopt A Stream Foundation Designing the Removal of a Bridge and Restoration of Woods Creek

Grant Awarded: \$78,395

The Adopt A Stream Foundation will use this grant to produce preliminary designs for a project that entails removing an abandoned railroad bridge spanning lower Woods Creek immediately upstream of Al Borlin Park in Monroe, and restoring the nearby floodplain area. Fish production in this reach is limited by low amounts of woody materials, unstable banks, high sediment loading in the water, and shallow pools. Wood regularly racks up on the bridges and creates debris jams, which sometimes become more than 10 feet tall and impede fish passage. Restoration could include placing tree root wads and logs in the creek and on its banks, controlling invasive weeds, replanting the creek banks, and removing 1,500 feet of abandoned railroad grade from the floodplain of the Skykomish River. Lower Woods Creek provides crucial off-channel rearing habitat for juvenile Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act; for coho salmon, which is a federal species of concern; and for chum and pink salmon. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1639)

Salmon Recovery Grants Awarded



Snohomish County Replacing Woods Creek Culverts

Grant Awarded: \$363,000

Snohomish County and its partners, the Snohomish Conservation District and Wild Fish Conservancy, will use two grants to continue work to replace four barriers to fish passage in the Woods Creek watershed area, opening nearly 3 miles of valuable spawning and rearing habitat. The partners will replace three private and one county-owned fish barrier culverts with new culverts, which are large pipes or concrete structures designed to carry streams under roads. The creek is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Snohomish County will contribute \$527,500. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1608)

Sound Salmon Solutions Designing the Restoration of Grant Creek

Grant Awarded: \$86,600

Sound Salmon Solutions will use this grant to complete designs for restoration of Grant Creek, a tributary to the lower North Fork Stillaguamish River, between Arlington and Oso. The restoration project will place large logs and tree root wads in the creek, starting at the Hillis Road Bridge and continuing about 1 mile upstream. Logs and tree root wads create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river. A slower river allows small gravels to settle to the river bottom for spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. The work also will reconnect a historic channel to the creek to allow more water to be stored during floods and to replenish the groundwater. The work also will create more places for fish to rest. The river is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1107)

Stillaguamish Tribe of Indians Building Logjams in the North and South Forks of the Stillaguamish River

Grant Awarded: \$850,000

The Stillaguamish Tribe of Indians will use this grant to build at least three logjams in the North Fork and at least four logjams in the South Fork Stillaguamish River to increase habitat for salmon species. Since the 1900s, most of the natural wood in the system was cleared and the shorelines logged leaving a mix of immature deciduous and conifer trees. Building logjams will mimic natural systems until the shoreline trees mature. Logjams create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river and allows small gravel to settle to the river bottom for spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. The Tribe's near-term goal is to build at least 50 logjams in the two river forks,

Salmon Recovery Grants Awarded



and so far has completed 23 and a crib wall that was destroyed by the Oso landslide. The river is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho and bull trout. The Stillaguamish Tribe of Indians will contribute \$150,000. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1553)

Stillaguamish Tribe of Indians

Grant Awarded: \$412,470

Conserving North Fork Stillaguamish Floodplain

The Stillaguamish Tribe of Indians will use this grant to buy at least 35 acres of floodplain along the North Fork Stillaguamish River. This is part of an ongoing project to acquire 7,225 acres by 2055 with the goal of creating a corridor of protected lands along the major Chinook-bearing waters of the Stillaguamish River. The corridor will allow protection and restoration of floodplain processes. The river is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The Stillaguamish Tribe of Indians will contribute \$77,000 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1124)

Stillaguamish Tribe of Indians

Grant Awarded: \$506,976

Conserving Stillaguamish Floodplain

The Stillaguamish Tribe of Indians will use this grant to buy 56 acres of floodplain along the Stillaguamish River and plant at least 10 acres of shoreline. This purchase is a step toward the long-range goal of creating a corridor of protected lands along the Stillaguamish River and its forks. The corridor will be a place where natural river processes can be restored and allowed to proceed, uninhibited by infrastructure or bank armoring. The river is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by pink and chum salmon. This project is part of a larger project that was funded partially by the Salmon Recovery Funding Board in December. The Stillaguamish Tribe of Indians will contribute \$76,500 in a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1638)

Stillaguamish Tribe of Indians

Grant Awarded: \$500,000

Hiring a Crew to Plant Stillaguamish River Shorelines

The Stillaguamish Tribe will use this grant to fund a prison crew to plant trees along the Stillaguamish River basin and Jim Creek. The crew from Monroe Corrections Complex has logged thousands of hours completing similar restoration projects in the basin. Riverbank plantings help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and

Salmon Recovery Grants Awarded



burying spawning gravel. The river and creek are used by Chinook salmon and steelhead, which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; by chum and pink salmon; and by rainbow and cutthroat trout. The Stillaguamish Tribe of Indians will contribute \$250,000 in staff labor and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1539)

Tulalip Tribes

Grant Awarded: \$188,870

Planning the Pilchuck Dam Removal

The Tulalip Tribes will use this grant to complete final designs, permitting, and community outreach for a project to remove the City of Snohomish's Pilchuck River Diversion Dam. The City of Snohomish has operated the diversion dam in the Pilchuck River since 1912. The diversion dam consistently has impeded Chinook, coho, chum and pink salmon; steelhead, bull trout, and cutthroat trout; and other species from migrating upstream. The City has committed to stopping water withdrawals at this location, allowing full dam removal. Removal of the dam will restore unimpeded fish access to more than 37 miles of high quality habitat for at-risk salmon. The Pilchuck River is used by Chinook salmon and steelhead, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The Tulalip Tribes will contribute \$33,534 in donations of labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1153)

Thurston County

Capitol Land Trust

Grant Awarded: \$17,000

Assessing Landowner Willingness to Conserve Salmon Habitat

The Capitol Land Trust will use this grant to assess the willingness of landowners to sell their land to protect salmon habitat. The land trust will determine the feasibility of conservation and the value of the land, create maps, draft contracts, and complete title review, field assessments, and appraisals for two properties. The completion of these tasks is integral for successful negotiations with landowners and development of conservation projects. The land trust will focus on the Satsop River, Black River, Skookumchuck River, and Chehalis River watersheds, which are used by Chinook, chum, and coho salmon, and steelhead. The Capitol Land Trust will contribute \$3,000 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1125)

Salmon Recovery Grants Awarded



Capitol Land Trust Conserving Middle Deschutes River Habitat

Grant Awarded: \$150,000

The Capitol Land Trust will use this grant to buy 76 acres and nearly three-quarter mile of Deschutes River shoreline near the river's confluence with Silver Creek, south of Offutt Lake. This proposal is the first phase of an overall project that seeks to conserve 220 acres of undeveloped forest with 1.5 miles of Deschutes River shoreline, more than a half-mile of Silver Creek shoreline, and 8 acres of wetlands. This project will protect habitat for Chinook and steelhead salmon, both of which are species listed as threatened with extinction under the federal Endangered Species Act, for coho salmon, which is a federal species of concern, and for chum salmon and cutthroat trout. The Capitol Land Trust will contribute \$400,000 in Conservation Futures.⁴ Visit RCO's online Project Snapshot [for more information and photographs of this project.](#) (17-1245)

Capitol Land Trust Conserving the Black River

Grant Awarded: \$50,074

The Capitol Land Trust will use this grant to conserve 94 acres along the middle reach of the Black River, including about a quarter-mile of both the Black River and Beaver Creek, and 75 acres of wetlands in Thurston County. The land trust will buy a voluntary land preservation agreement, also called a conservation easement, which would limit farming to areas currently farmed, widen shoreline buffers to 100 feet on the Black River and Beaver Creek, and limit development intensity and location on the property. The Black River is used by Chinook, coho, and chum salmon; steelhead; and coastal cutthroat trout. The land is directly north of the Ramos Preserve, and will create a block of 200 acres of protected land, including 1.3 miles of the Black River and thousands more feet of side channels and sloughs. The Capitol Land Trust will contribute \$22,500. Visit RCO's online Project Snapshot [for more information and photographs of this project.](#) (17-1098)

Capitol Land Trust Conserving the Holm Farm near the Black River

Grant Awarded: \$207,147

The Capitol Land Trust will use this grant to buy significant, historical farmland bisected by a salmon stream. This project is important because it conserves a tributary to the Black River, which flows through one of the largest remaining wetland systems in western Washington. The land trust will buy 60 acres of the 135-acre farm, in this first phase. The farm is 3 miles north of Littlerock, in Thurston County. The stream bisecting the property is known as Blooms Ditch and is a rearing stream for coho salmon and steelhead. With the purchase of the property, the land trust will conserve the stream and prevent activities occurring on the property that would threatened or damage the shoreline quantity, quality, and habitat. The Capitol Land Trust will

⁴Conservation futures are a portion of property taxes used by local governments to buy land or development rights to protect natural areas, forests, wetlands, and farms.

Salmon Recovery Grants Awarded



contribute \$63,805. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1076)

Capitol Land Trust

Grant Awarded: \$26,039

Designing Restoration of the Shermer-Deschutes Preserve

The Capitol Land Trust will use this grant to evaluate the site and prepare a preliminary restoration design for salmon habitat in the land trust's Shermer-Deschutes Preserve in Thurston County. This 22-acre preserve contains about one-third mile of Deschutes River shoreline. Major habitat types include 17 acres of wetland, forests, and an agricultural field within the floodplain. This preliminary project design would include plans for restoring the shoreline corridor, wetlands and forests. The design will cover the need for removing invasive plant species, replanting with native vegetation, and potential engineering options to add habitat for salmon within the preserve. The Deschutes River is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1247)

Capitol Land Trust

Grant Awarded: \$22,665

Planning Habitat Conservation Projects in the Deschutes Watershed

The Capitol Land Trust will use this grant to develop projects to conserve nearshore and freshwater salmon habitat in the Deschutes watershed. The land trust will assess landowner willingness and determine project feasibility and the value of the land or conservation easement, including creating maps, drafting legal language, and completing title review, field assessments, and appraisals. The land trust will contribute \$4,000 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1407)

Nisqually Land Trust

Grant Awarded: \$272,394

Conserving the Nisqually River's Wilcox Reach

The Nisqually Land Trust will use two grants to buy about 20 acres along the southern shore of Wilcox Reach of the Nisqually River in Thurston County, east of Yelm. The land is in the river's migration zone and on the floodplain. In early 2016, the river eroded more than 60 feet of bank in front of houses on the land, leaving one home uninhabitable and a nearby one at risk. The land trust will demolish the houses and clean up the land to enhance the natural floodplain and riverine processes and prevent debris from falling into the river. The Nisqually River is used by steelhead and Chinook salmon, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The Nisqually Land Trust will contribute \$50,000 from another state grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1451)

Salmon Recovery Grants Awarded



Pierce Conservation District Removing Knotweed along the Nisqually River

Grant Awarded: \$62,110

The Pierce Conservation District will use this grant to remove Japanese knotweed in the Nisqually River basin, and replant at least 20 acres of previously infested shoreline habitat. Aggressive eradication of knotweed will continue until 2020, when knotweed is expected to have been successfully controlled. The restoration areas will be planted by volunteers coordinated by the Nisqually Stream Stewards and Pierce County Stream Team. The new riverbank plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. In addition to the planting, the conservation district will continue surveys of the Nisqually River and its tributaries to verify data previously collected and to map knotweed presence. The river is used by steelhead and Chinook salmon, both of which are species listed as threatened with extinction under the federal Endangered Species Act, as well as by chum, coho, and pink salmon. The Pierce Conservation District will contribute \$11,628. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1081)

South Puget Sound Salmon Enhancement Group Reconnecting Butler Cove Estuary

Grant Awarded: \$192,000

The South Puget Sound Salmon Enhancement Group will use this grant to remove a series of derelict fish rearing ponds on the west side Budd Inlet. The salmon enhancement group also will develop preliminary designs to replace a culvert under Windolph Loop Road at the mouth of the estuary that is preventing fish from swimming upstream. Culverts are large pipes or structures that carry streams under roads. The goals of this project are to restore the ability of the estuary to serve as a place where salmon can seek refuge and find food, and to restore the ability of the current to transport sediment into and out of the estuary. Pocket estuaries like Butler Cove are important nurseries for rearing Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The South Puget Sound Salmon Enhancement Group will contribute \$35,000 in another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1399)

South Puget Sound Salmon Enhancement Group Restoring Spurgeon Creek's Meander

Grant Awarded: \$255,000

The South Puget Sound Salmon Enhancement Group will use this grant to place large woody materials near the head waters of Spurgeon Creek, a tributary to the Deschutes River. The creek is ditched through a field. The large woody materials will help recreate the natural stream meandering through a wetland. The wood will help create pools for fish to rest, feed, and hide from predators. Large wood also slows the river, which reduces erosion and the resulting loading of fine sediment into the river, which can fill in important pool habitat and cover

Salmon Recovery Grants Awarded



spawning gravel. Finally, the logs and root wads change the flow of the river, creating riffles and pools, giving fish more varied habitat. The salmon enhancement group also will plant native plants throughout the three-quarter acre project. The new plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. Spurgeon Creek is the largest lowland tributary to the Deschutes River and a critical contributor of cold water. The proposed project is intended to improve water quality and increase salmon rearing habitat for juvenile coho salmon, which are a federal species of concern. The South Puget Sound Salmon Enhancement Group will contribute \$45,000 in another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1408)

Wahkiakum County

Wahkiakum Conservation District

Grant Awarded: \$319,862

Restoring the Elochoman River and Beaver Creek

The Wahkiakum Conservation District will use this grant to place wood-based structures along a mile of the Elochoman River, part of Beaver Creek, and the river's side channel. Overall, the wood structures change the flow of the water, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also slow the water, allowing small gravel to settle to the bottom for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the streams. The wood structures in the side channels will improve the connection between the river, creek, and side channels. In a couple of areas, stream banks are eroding faster because of the loss of trees. The conservation district will plant 55 acres along 1.82 miles of the Elochoman River and the side channel habitats. The river is used by Chinook, chum, and coho salmon, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and by steelhead, which is important to the recovery of lower Columbia River steelhead. The Wahkiakum Conservation District will contribute \$62,500 in a state and another grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1025)

Wahkiakum Conservation District

Grant Awarded: \$187,750

Restoring Wilson Creek

The Wahkiakum Conservation District will use this grant to place large logs and tree root wads in Wilson Creek to increase the habitat quantity and diversity for salmon and steelhead. The conservation district will install 51 wood-based structures along three-quarter mile of the creek and along a near quarter-mile of side channels. Overall, the logs and tree root wads will change the flow of the creek, creating riffles and deep cold pools as well as places for fish to rest and hide from predators. They also will slow the creek, allowing small gravel to settle to the bottom

Salmon Recovery Grants Awarded



for spawning areas. Slower water also reduces erosion and the amount of fine sediment in the creek. In addition to placing wood in the creek, the conservation district will plant trees along the creek and side channels. The new creekbank plantings will help shade the water, keeping it cool for fish. The plants also drop branches and leaves into the water, which provide food for the insects that salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The work will modify two side channels to improve connectivity and stabilize the channels during winter high water. The creek is used by chum and coho salmon, which are species listed as threatened with extinction under the federal Endangered Species Act, as well as by steelhead, which is important to the recovery of the lower Columbia River steelhead species. The Wahkiakum Conservation District will contribute \$49,000 in a state grant and other grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1030)

Walla Walla County

Tri-State Steelheaders, Inc.

Grant Awarded: \$226,540

Continuing Restoration of the Walla Walla River

The Tri-State Steelheaders will use this grant to place logs and log structures along .6 mile of the Walla Walla River, near Lowden, to improve habitat for salmon. The logs create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river. A slower river allows small gravels to settle to the bottom for spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat, and they encourage development of side channels. The Tri-State Steelheaders also will excavate a terrace to re-establish shoreline plants on an eroding bank and make minor adjustments to the channel alignment. The new riverbank plantings will help shade the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat and places for salmon to rest and hide from predators. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. This is the second of a four-phase restoration project in a priority spawning reach of the Walla Walla River. The river is home to steelhead and bull trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act, as well as Chinook salmon. Other species that use the reach are margined sculpin, leopard dace, and river lamprey. The Tri-State Steelheaders will contribute \$80,000 in donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#) or visit www.snakeriverboard.org. (17-1267)

Salmon Recovery Grants Awarded



Tri-State Steelheaders Inc. Improving Fish Passage in Mill Creek

Grant Awarded: \$826,097

The Tri-State Steelheaders will use this grant to remodel 880 feet of Mill Creek's 2-mile concrete flood control channel to improve conditions for salmon. Water in the concrete channel sometimes runs too fast for salmon, and the channel offers no place for them to rest. At other times of year, the water is too low, trapping salmon there where water that is too warm kills them. Upstream, there are more than 50 miles of Mill Creek and headwater tributaries that are considered to be critical and underused by salmon for spawning and rearing. This project is the fifth of multiple projects necessary to restore fish passage through the 2-mile concrete channel running through downtown Walla Walla. Following completion of this project, about a half-mile of channel will have improved passage. Mill Creek is home to steelhead and bull trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act, as well as Chinook salmon. The Tri-State Steelheaders will contribute \$150,000 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#) or visit www.snakeriverboard.org. (17-1305)

More projects in Walla Walla County are listed under "Multiple Counties" at the end of this document

Whatcom County

Lummi Nation Installing Logjams in the South Fork Nooksack River

Grant Awarded: \$198,065

The Lummi Nation will use this grant to help build 12 engineered logjams in the South Fork Nooksack River. Logjams create places for fish to rest and hide from predators. They also slow the river, which reduces erosion and the amount of sediment in the river. A slower river allows small gravels to settle to the river bottom for spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. Temperatures in this section of the South Fork are too warm in the summer for salmon. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. In addition, endangered early spring Chinook salmon and bull trout will benefit. The Lummi Nation will contribute \$114,000 in a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-2057)

Lummi Nation Installing Logjams in the Middle Fork Nooksack River

Grant Awarded: \$695,867

The Lummi Nation will use two grants to construct 12 engineered logjams in the Middle Fork Nooksack River, at the Porter Creek reach. These logjams will create places for fish to rest and hide from predators. Engineered logjams also slow the river, which reduces erosion and the

Salmon Recovery Grants Awarded



amount of sediment in the river. A slower river will allow small gravels to settle to the river bottom for spawning areas. Finally, the logjams will change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. This work is expected to create at least 12 pools that will give fish a respite from Middle Fork Nooksack River water temperatures that are too warm in the summer spawning months, and will provide pools where juveniles can spend their winters, growing. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. The Lummi Nation will contribute \$308,827 in federal and private grants. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1261 and 16-2116)

Nooksack Indian Tribe **Grant Awarded: \$199,825** **Designing South Fork Nooksack River Restoration at Fish Camp Reach**

The Nooksack Indian Tribe will use this grant to analyze alternatives and develop preliminary designs for restoring habitat in the South Fork Nooksack River at Fish Camp Reach, near Acme. The South Fork lacks deep holding pools and summer water temperatures are too warm. Alternatives include building logjams to increase habitat diversity; and removing, lowering, or setting back riprap to create pools, reduce flood risk, and increase floodplain connectivity. Adjacent ownership of Whatcom Land Trust and Whatcom County through much of the reach presents a unique opportunity to restore habitat and habitat-forming processes in the lower South Fork. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; by sockeye, chum, and pink salmon; and by cutthroat trout. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-2052)

Nooksack Indian Tribe **Grant Awarded: \$211,973** **Designing the North Fork Nooksack River Restoration at Boyd Reach**

The Nooksack Indian Tribe will use this grant to develop preliminary designs for restoring the North Fork Nooksack River at Boyd Reach, near Glacier. A road next to the river hinders access to Boyd and Cascade Creeks and efforts to protect the road have damaged fish habitat in the North Fork. The designs will be for restoration that will remove a barrier culvert to improve fish passage into Boyd and Cascade Creeks, remove road fill from the floodplain to increase connectivity, increase secondary channel length and stability to reduce redd scour, create scour pools to increase habitat diversity, and move a forest road to increase wood recruitment and shade. The Tribe will develop conceptual designs for up to three alternatives, complete national environmental review requirements and geotechnical review of the road relocation, and develop preliminary design drawings for a preferred alternative. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; by chum

Salmon Recovery Grants Awarded



and pink salmon; and by cutthroat trout. The Nooksack Indian Tribe will contribute \$37,419 in a federal grant and donations of volunteer labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-2055)

Nooksack Indian Tribe

Grant Awarded: \$126,156

Designing the North Fork Nooksack River Restoration at Maple Reach

The Nooksack Indian Tribe will use this grant to develop nearly complete design plans for restoration of habitat in the North Fork Nooksack River at Maple Reach, near Maple Falls in Whatcom County. The river channel in this reach is unstable and doesn't have a diversity of habitat types. The restoration projects being designed will split the flow and increase secondary channel and floodplain tributary length and stability; increase habitat diversity by forming pools; and increase floodplain connectivity by breaching a farm levee. The North Fork Nooksack River is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act; Chinook, coho, chum, and pink salmon; and by bull and cutthroat trout. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-2051)

Nooksack Indian Tribe

Grant Awarded: \$120,430

Designing the Restoration of the North Fork Nooksack River's Farmhouse Reach

The Nooksack Indian Tribe will use this grant to design and permit a project to restore the North Fork Nooksack River's Farmhouse reach. The Tribe will design 55 engineered logjams to be placed in 1 mile of the river, completing restoration in the broader Farmhouse reach. Logjams create places for fish to rest and hide from predators. They also slow, help stabilize, and change the flow of the river, creating riffles and deep pools, giving fish more varied habitat. Finally, logjams help form and maintain stable side channels. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, by coho salmon, which is a federal species of concern, and by chum and pink salmon and cutthroat trout. The North Fork Nooksack River's early Chinook salmon are genetically unique and essential for recovery, but productivity is critically low. The Farmhouse reach is just upstream from the Kendall hatchery, site of the early Chinook population rebuilding program, and has the potential to be heavily used. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1260)

Nooksack Indian Tribe

Grant Awarded: \$517,519

Placing Logjams in the South Fork Nooksack River

The Nooksack Indian Tribe will use this grant to install five logjams in the South Fork Nooksack River, upstream of Acme. This project is the second of three phases of restoration in the broader Nasset reach of the river. The South Fork Nooksack River suffers from a lack of deep pools with hiding cover and water that is too warm for salmon. Logjams provide cover for fish to rest and hide from predators. They also slow the river, which reduces erosion and allows small gravel to

Salmon Recovery Grants Awarded



settle to the river bottom for spawning areas. Finally, they change the flow of the river, creating riffles and deep cold pools, giving fish more varied habitat. This project implements high priority restoration in a high priority reach for South Fork Nooksack early Chinook salmon, which are essential for recovery of Puget Sound Chinook, which is a species listed as threatened with extinction under the federal Endangered Species Act. The South Fork Nooksack River also provides important habitat for steelhead and bull trout, both of which are species listed as threatened; coho salmon, which is a federal species of concern; sockeye, chum, and pink salmon; and cutthroat trout. The Nooksack Indian Tribe will contribute \$91,330 from a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-2049)

Nooksack Indian Tribe

Grant Awarded: \$864,465

Restoring the North Fork Nooksack River

The Nooksack Indian Tribe will use this grant to place 18 logjams in the North Fork Nooksack River to reconnect and restore Chinook spawning use of Wicks Slough, near Kendall. The North Fork is unstable and Chinook redds often do not survive winter high flows. The logjams are designed to protect the forested island that protects Wicks Slough and create diverse habitat in the side channel. This project is the third phase of restoration in the larger Farmhouse reach restoration effort. The Farmhouse reach is just upstream from the Kendall hatchery. The river is used by Chinook salmon, steelhead, and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; by chum and pink salmon; and by cutthroat trout. The Nooksack Indian Tribe will contribute \$152,587 in a federal grant. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-2054)

Yakima County

North Yakima Conservation District

Grant Awarded: \$228,000

Improving Habitat and Fish Screens in Ahtanum Creek

The North Yakima Conservation District will use this grant to place tree root wads, logs, and rocks in Ahtanum Creek, southwest of Yakima, to improve habitat for salmon. The wood and rock structures will create places for fish to rest and hide from predators. They also will slow the creek, which reduces erosion and the amount of sediment in the water. A slower creek allows small gravels to settle to the bottom for spawning areas. Finally, the structures will change the flow of the creek, creating riffles and deep cold pools, giving fish more varied habitat. The conservation district also will remove a small section of remnant dike and install a fish screen, fish bypass, and headgate to prevent fish from being trapped in a diversion pipe. Finally, the conservation district will grade some of the creek to maintain flow into the diversion and eliminate the need for the irrigator to build diversion structures in the creek every year. The work will restore .3 mile of the creek and its floodplain, as well as increase fish habitat

Salmon Recovery Grants Awarded



complexity, improve floodplain function, and prevent fish from being trapped in the irrigation system. The creek is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon and bull trout. The North Yakima Conservation District will contribute \$45,000 in a federal grant and donations of materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (17-1224)

More projects in Yakima County are listed under "Multiple Counties" at the end of this document

Multiple Counties

Columbia and Walla Walla Counties

Columbia Conservation District

Grant Awarded: \$211,153

Developing a Conceptual Restoration Plan for the Touchet River

The Columbia Conservation District will use this grant to develop a conceptual restoration plan for the Touchet River and tributaries in Columbia and Walla Walla Counties. The project will focus on the middle and upper Touchet River and Patit Creek. The planning process will expand upon existing information from a geomorphic assessment and will include conducting habitat surveys and identifying priority stream reaches and habitat enhancement potential. The guiding principle of this restoration plan will be improving the habitat limiting salmonid production and survival. The resulting plan will serve as the basis of future restoration project development. The river is home to steelhead and bull trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act, as well as Chinook salmon. The Columbia Conservation District will contribute \$37,290 in cash and donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project](#) or visit www.snakeriverboard.org. (17-1301)

Jefferson, Kitsap, and Mason, Counties

Hood Canal Salmon Enhancement Group

Grant Awarded: \$188,314

Restoring Shorelines of Rivers and Creeks near Hood Canal

The Hood Canal Salmon Enhancement Group will use this grant to remove knotweed along more than 30 miles of stream and plant 15 acres of shoreline. Work will be done on the lower sections of the Union, Tahuya, Dewatto, Dosewallips, and Big and Little Quilcene Rivers, and on Big Anderson and Big Beef Creeks. Riverbank plantings help shade the water, cooling it for fish and offering places for salmon to rest and hide from predators. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat. Finally, the roots of the plants help keep the soil from entering the water and burying spawning gravel. The creeks and

Salmon Recovery Grants Awarded



rivers are used by Chinook and chum salmon and steelhead, all of which are species listed as threatened with extinction under the federal Endangered Species Act; coho salmon, which is a federal species of concern; and pink salmon. This 2-year project will continue more than 4 years of previous efforts to control invasive knotweed and plant native species along the shorelines. The Hood Canal Salmon Enhancement Group works with 266 landowners who have given permission to work on their properties. The Hood Canal Salmon Enhancement Group will contribute \$33,380 in a state grant and donations of volunteer labor and materials. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1476)

Kitsap and Pierce Counties

Pierce County

Grant Awarded: \$600,000

Opening Fish Passage on Huge Creek

The Pierce County Planning and Public Works Department's Surface Water Management Division will use this grant to replace an undersized culvert with a bridge to restore fish passage and reduce flood risk on Huge Creek at 160th Street. The street is the border between Kitsap and Pierce Counties, and they jointly own the road and are partnering on this project. The culvert, which is a large pipe or concrete structure used to carry streams under roads, is blocking fish passage. Once this culvert is replaced, salmon species will have access to more than 10 miles of salmon habitat upstream of the road. Huge Creek is used by Chinook salmon and steelhead, which are species listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; by chum salmon; and by coastal cutthroat trout. Pierce County will contribute \$135,000 in cash and donations of cash. Visit RCO's online Project Snapshot [for more information and photographs of this project](#). (16-1462)

Kittitas and Yakima Counties

Mid-Columbia Fisheries Enhancement Group

Grant Awarded: \$96,694

Placing Trees in Crow and Quartz Creeks

The Mid-Columbia Fisheries Enhancement Group and the U.S. Forest Service's Naches Ranger District will use this grant to fell about 300 trees in tributary streams of the Little Naches River to improve habitat for steelhead, bull trout, and Chinook salmon. The work will be done in the lower 1.3 miles of Crow Creek and the lower 0.9 mile of Quartz Creek, in Yakima and Kittitas Counties. Crews will cut smaller trees within 300 feet of the streams, and then move them into stream channels and floodplains. The trees will create places for fish to rest and hide from predators. They also will slow the creeks, which reduces erosion and the amount of sediment in the river. A slower creek allows small gravels to settle to the bottom for spawning areas. Finally, the trees will change the flow of the creek, creating riffles and deep cold pools, giving fish more varied habitat. The creeks are used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Mid-Columbia Regional Fisheries

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Enhancement Group will contribute \$17,150 in donations of labor. Visit RCO's online Project Snapshot [for more information and photographs of this project.](#) (17-1169)