The Asotin County Conservation District will use this grant to remove a culvert where Cottonwood Creek flows under the Grande Ronde River Road. Culverts are pipes or other structures that carry water under roads and often block fish migration because they are too steep, too tall, or too small to allow fish to pass through easily. Correcting this barrier will expand access to 2.5 miles of habitat for migrating fish. The creek is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act.

Asotin County Conservation District Restoring Fish Passage in Cottonwood Creek

along 9 miles of Charley Creek, North Fork Asotin Creek, and South Fork Asotin Creek near Clarkston. Adding logs to a creek creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. These creeks are used by steelhead trout and Chinook salmon, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$7,000 in donations of equipment and labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1499)

Asotin County Conservation District Grant Awarded: \$32,500 Expanding Habitat in the Asotin Intensively Monitored Watershed

The Asotin County Conservation will use this grant to add tree root wads and logs to locations

root wads and logs to the side channel and main part of Asotin Creek. Adding logs to a creek creates places for fish to rest, feed, and hide from predators. It also slows the water, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. The creek is used by Chinook salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$16,000 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1463)

The Asotin County Conservation District will use this grant to develop a design and engineering plans and complete permitting for a project to restore habitat in about half-mile of Asotin Creek near Asotin. The plan would include increasing water flow to the side channel and adding tree

Asotin County Conservation District Designing a Project to Restore Asotin Creek

Salmon Recovery Grants Awarded

Projects in Asotin County

Total: \$222,200 Grant Awarded: \$85,000

December 2019

Grant Awarded: \$104,700



washington state recreation and conservation office Salmon Recovery Funding Board

December 2019

Salmon Recovery **Grants Awarded**

The conservation district will contribute \$86,100 in a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1498)

Projects in Chelan County

Cascade Columbia Fisheries Enhancement Group Designing a Project to Restore Lower Chiwaukum Creek

The Cascade Columbia Fisheries Enhancement Group will use this grant to create a design for a project to restore .7 mile of Chiwaukum Creek, which provides cold water and spawning and rearing habitat for salmon species. Development and logging along the creek has constrained habitat and habitat-forming processes. The creek is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The enhancement group will contribute \$55,098 in a local grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1472)

Chelan County Conserving Nason Ridge to Preserve Habitat

The Chelan County Natural Resources Department will use this grant to buy at least 600 acres on Nason Ridge, which includes 2.5 miles along Nason Creek and more than 1 mile along Kahler Creek. The land will be managed as part of a 3,714-acre community forest with the local community and multiple partners to protect and restore water quality and forest health. These groups are developing a community forest plan to guide future management and land stewardship. The creeks are used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The County will contribute \$500,000 from another grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1480)

Chelan County Grant Awarded: \$114,750 **Designing a Project to Improve Peshastin Irrigation District**

The Chelan County Natural Resources Department will use this grant to develop conceptual designs for two pump stations on the Wenatchee River that would deliver water to the Peshastin and Icicle Irrigation District Canals through the entire irrigation season. This would discontinue the surface water diversion in Peshastin Creek and remove the diversion facilities, conserve more water, and improve access for migrating fish. Diversion systems take water from streams to irrigate farmland. Successful systems prevent salmon from entering and getting trapped and dying in irrigation systems. The goal of this project is to increase the amount of water in lower Peshastin Creek, lower Icicle Creek, and the lower Wenatchee River through the entire irrigation season, which will improve fish passage and spawning and rearing habitat. Peshastin and Icicle

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WASHINGTON STATE RECREATION AND CONSERVATION OFFICE Salmon Recovery Funding Board

Total: \$1,659,537



Grant Awarded: \$750,000

Grant Awarded: \$61,158



washington state recreation and conservation office Salmon Recovery Funding Board

Creeks are used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The County will contribute \$20,250 from another grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1479)

Chelan County Grant Awarded: \$79,208 Designing a Project to Reconnect a Peshastin Creek Side Channel

The Chelan County Natural Resources Department will use this grant to design a project to reconnect .2 mile of side channel to Peshastin Creek, expanding places where fish can rest and spawn. The creek is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The County will contribute \$19,802 in a local grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1477)

Chelan County Improving Habitat in a Wenatchee River Side Channel

The Chelan County Natural Resources Department will use to grant to permit and install tree root wads and logs along .4 mile of a side channel to the Wenatchee River and to replant the channel's banks. Adding logs to a stream creates places for fish to rest, feed, and hide from predators. It also slows the water, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logs change the flow of the water, creating riffles and pools, which give salmon more varied habitat. Planting native trees and shrubs along the shoreline shades 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 river is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The County will contribute \$148,265 in a local grant. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1475)

Chelan-Douglas Land Trust Preserving Land near Nason and Kahler Creeks

The Chelan-Douglas Land Trust will use this grant to buy 80 acres to connect with the 3,714 acres on Nason Ridge recently protected by Chelan-Douglas Land Trust, Western Rivers Conservancy, and others. This project will protect 3.5 square miles of the Kahler Creek watershed. The creek is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The land trust will contribute \$184,550 from a private grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1466)

Grant Awarded: \$148,265

Grant Awarded: \$184,575



washington state recreation and conservation office Salmon Recovery Funding Board

Confederated Tribes and Bands of the Yakama Nation Grant Awarded: \$133,275 Enhancing Habitat in Nason Creek

The Yakama Nation will use this grant to excavate an existing side channel, add tree root wads and logs to the channel, and plant the shoreline to improve the Nason Creek floodplain at its confluence with the Wenatchee River. Adding logs to a creek creates places for fish to rest, feed, and hide from predators. It also slows the creek, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. The placement of the logs is expected to create .12 mile of side channel. Planting trees and bushes along a shoreline shades 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 creek is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The Yakama Nation will contribute \$226,730 in a local grant and donations of labor and materials. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1492)

Trout Unlimited Inc. Improving In-stream Flow in Lower Wenatchee River

Trout Unlimited Inc. will use this grant to upgrade the irrigation delivery system in the Wenatchee River. This will leave more water in the river during times of low flow. The river is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. Trout Unlimited Inc. will contribute more than \$2.2 million in local and other grants. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1489)

Projects in Clallam County

Total: \$503,166

Clallam Conservation District Grant Awarded: \$132,275 Replacing a Culvert to Keep Sediment from Entering the Sitkum River

The Clallam Conservation District will use this grant to help the U.S. Forest Service replace an undersized culvert with a larger culvert on a tributary of the Sitkum River. Culverts are pipes or other structures that carry water under roads and often block fish migration because they are too steep, too tall, or too small to allow fish to pass through easily. The new, larger culvert will allow tree branches, logs, and other large woody materials to flow down the river, which creates good habitat for fish, and will better accommodate flood flows. The tributary is upstream from the Sitkum River, which supports a diversity of fish populations. If the current culvert were to fail, large amounts of sediment could be dumped into the Sitkum River, which would greatly harm

Grant Awarded: \$188,306



washington state recreation and conservation office Salmon Recovery Funding Board

fish habitat. The river is used by Chinook and coho salmon and steelhead trout. The conservation district will contribute \$28,140 in donations of labor from the Forest Service. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1397)

Lower Elwha Klallam Tribe Placing Logjams in the Elwha River to Improve Habitat

The Lower Elwha Klallam Tribe will use this grant to build 24 logjams and reinforce 3 natural logjams in the Elwha River at Ranney Reach. This reach is straight and narrow with too few pools and fast moving water during winter. The logjams will split the river through the reach and create deep, stable pools with cover where young salmon can hide from predators and grow. Adding logs to a river also slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. This project is part of a larger project funded in 2018. The river is used by Chinook salmon and steelhead and bull trout, all of which are listed as threatened with extinction under the federal Endangered Species Act, as well as by cutthroat trout and coho, sockeye, pink, and chum salmon. The Tribe will contribute \$400,000 in federal and local grants. In addition, the City of Port Angeles is providing funding because of its water system that transports water from the Elwha River to city residents. (18-1291)

Quileute Tribe Restoring Habitat in a Cedar Creek Tributary

The Quileute Tribe will use this grant to improve habitat after a fish passage barrier is removed from a tributary to Cedar Creek in Clallam County. The Tribe will plant trees, shrubs, and native plants along the creek bank. Planting the bank 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 landowner, Rayonier, also is planning to remove a blocking culvert (a pipe or other structure that carries a stream under a road) and decommission the road at this site. When combined with these habitat improvements, more natural processes will be able to occur and will provide access to a half-mile of upstream fish habitat. The creek is used by Chinook and coho salmon, and steelhead and resident trout. The Tribe will contribute \$13,835. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1467)

Trout Unlimited Grant Awarded: \$137,896 Designing Projects to Expand Access in Wisen and Wisen Branch Creeks

Trout Unlimited will use this grant to develop three construction-ready designs to replace three barriers to migrating fish. One barrier is on Wisen Creek and two barriers are on Wisen Branch Creek, all of which are in the Sol Duc watershed east of Sappho. Replacing the three barriers will open 1.8 miles of habitat, as well as more than 2 acres of wetland and beaver pond habitat. Trout Unlimited will contribute \$24,350 in donations of labor. The creeks are used by coho

Grant Awarded: \$78,396

Grant Awarded: \$154,599

December 2019

Salmon Recovery Grants Awarded

salmon and steelhead trout. Visit RCO's online Project Snapshot for <u>more information and</u> <u>photographs of this project</u>. (19-1521)

Projects in Clark County

Cowlitz Indian Tribe Designing Fish Passage Improvements in Jones Creek

The Cowlitz Indian Tribe will use this grant to develop designs to correct two barriers to migrating fish where the road crosses Jones Creek, a tributary to the Little Washougal River. Fixing these barriers will restore access to 2 miles of habitat. The river is used by coho salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The Cowlitz Indian Tribe will contribute \$17,600 in donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1222)

Lower Columbia Estuary Partnership Grant Awarded: \$150,034 Assessing the East Fork Lewis River for Cold Water Habitat

The Lower Columbia River Estuary Partnership will use this grant to identify cold water habitat in about 16 miles of the lower East Fork Lewis River starting near La Center and running to Lucia Falls. The partnership will map these cold water habitats, commonly referred to as thermal refuge areas, and identify their restoration and protection potential. The river is used by Chinook, chum, and coho salmon and steelhead trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Lower Columbia Estuary Partnership will contribute \$27,782 in donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1253)

Lower Columbia Fish Enhancement Group Adding Nutrients into Salmon-bearing Rivers

The Lower Columbia Fish Enhancement Group will use this grant to place about 60,000 salmon carcasses across about 90 river miles in the East Fork Lewis, Kalama, Toutle, and Washougal Rivers' watersheds during the next 3 years. Adding salmon carcasses to waterways adds nutrients into the environment, benefitting fish, other wildlife, and streamside vegetation. The project will include coordinating dispersal sites, using drone imagery, coordinating volunteers, and tracking where carcasses are distributed. The watersheds are used by Chinook, chum, and coho salmon and steelhead trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The enhancement group will contribute \$14,500 in donations of labor. The Washington Department of Fish and Wildlife will provide the carcasses from local fish hatcheries. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1210)



washington state recreation and conservation office Salmon Recovery Funding Board

Total: \$309,335

Grant Awarded: \$99,572

Grant Awarded: \$59,729



washington state recreation and conservation office Salmon Recovery Funding Board

Total: \$974,160

Projects in Columbia County

Grant Awarded: \$250,062

Columbia Conservation District Adding Wood to the Tucannon River

The Columbia Conservation District will use this grant to add large root wads and logs to 1.1 miles of the Tucannon River. Adding logs to a river creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. The river is used by Chinook salmon and steelhead and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$57,122 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1494)

Confederated Tribes of the Umatilla Indian Reservation Grant Awarded: \$324,107 Restoring the North Fork Touchet River

The Confederated Tribes of the Umatilla Indian Reservation will use this grant to remove a levee and do a levee setback, restoring fish habitat and connecting floodplain on the North Touchet River upstream of Dayton. The Tribe also will place tree root wads and logs in the river. Adding logs to a river creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. The river is used by steelhead and bull trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and by reintroduced spring Chinook salmon. The Tribe will contribute \$82,500 in state and federal grants and donations of labor and an additional \$800,000 in other match. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1496)

Washington Department of Fish and Wildlife Improving Habitat in the Tucannon River

Grant Awarded: \$399,991

The Department of Fish and Wildlife will use this grant to add gravel and logs to the bottom of the Tucannon River as it passes through the Wooton Wildlife Area, creating more places for fish to spawn. The department also will remove levees to reconnect natural floodplain habitat. Past land use and flood control actions have resulted in a river that is narrow in this area, with water rushing through and not having time to deposit gravel. By adding gravel and buried logs, the department will raise the streambed about 2-3 feet in some areas. The height variations will help reconnect the floodplain and slow the river, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. The river is used by Chinook salmon and steelhead and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The department will contribute \$100,000 in a federal grant.



washington state recreation and conservation office Salmon Recovery Funding Board

Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1495)

Projects in Cowlitz County

Cowlitz Conservation District Improving Habitat in Germany Creek

The Cowlitz Conservation District will use this grant to add large wood structures to .4 mile of Germany Creek to restore creek and creek bank habitat. Adding wood to a creek creates places for fish to rest, feed, and hide from predators. It also slows the water, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, the wood changes the flow of the creek, creating riffles and pools, which give salmon more varied habitat. The conservation district also will plant native trees and shrubs along the creek. Planting trees and bushes along the bank shades 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 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. The conservation district will contribute \$32,450 in a state grant and donations of labor. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1225)

Cowlitz Indian Tribe Restoring Gobar Creek Floodplain and Stream Habitat

The Cowlitz Indian Tribe will use this grant to remove a 2.6-acre former fish hatchery acclimation pond, known as Gobar Pond, place large wood in almost a half-mile of stream channel, and reconnect 7 acres of floodplain surrounding Gobar Creek, a tributary of the Kalama River. The Tribe will plant hundreds of trees in the floodplain, re-grade the channel to a more natural meandering state, and place hundreds of large wood structures and whole trees in the stream channel and across the floodplain, to support braided channel formation and increase the types of habitat available. The river is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Tribe will contribute \$85,000 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1219)

Lower Columbia Fish Enhancement GroupGrant Awarded: \$174,761Designing a Project to Restore the Headwaters of the South Fork Toutle River

The Lower Columbia Fish Enhancement Group will use this grant to work with local stakeholders to design a project to restore 14.5 miles of the South Fork Toutle River and the surrounding floodplain. Implementation of this design will support greater diversity of available habitat for salmon and a more complex plant community through the addition of large wood to the river

Total: \$1,227,119

Grant Awarded: \$182,000

Grant Awarded: \$461,813



washington state recreation and conservation office Salmon Recovery Funding Board

and the planting of trees along the river. Adding wood to a river creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. Planting trees along a river helps shade the water, cooling it for fish. The trees also drop branches and leaves into the water, which provide food for the insects salmon eat. Finally, the tree roots help keep soil from entering the water, where it can smother fish spawning gravel. The river is used by Chinook and coho salmon and steelhead trout, 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. (19-1212)

Lower Columbia Fish Enhancement Group Restoring Habitat in the Coweeman River

Grant Awarded: \$408,545

The Lower Columbia Fish Enhancement Group will use this grant to place trees in the water and plant the banks of the Coweeman River and a tributary, near Kelso, to improve habitat for salmon species. The enhancement group will place large trees and logs in the river, which creates 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, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. The enhancement group also will plant trees along the riverbanks to shade the water, cooling it for fish. The trees 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 river is used by Chinook and coho salmon and steelhead trout, all of which are listed as threatened with extinction under the federal Endangered Species Act. The enhancement group and the landowner, Weyerhaeuser, will contribute \$72,132 in donations of labor and materials. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1213)

Projects in Grays Harbor County

Grant Awarded: \$36,000

Total: \$769,897

Chehalis Basin Fisheries Task Force Correcting a Barrier to Migrating Fish under Newskah Road

The Chehalis Basin Fisheries Task Force will use this grant to remove a culvert where Newskah Road meets Newskah Creek, near Aberdeen. Culverts are pipes or other structures that carry water under roads and often block fish migration because they are too steep, too tall, or too small to allow fish to pass through easily. The task force will replace the culvert with a structure that supports access for migrating fish. Project components include evaluating correction alternatives, identifying a preferred alternative, estimating costs, and completing design drawings and permitting for the barrier correction. The creek is used by chum salmon. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1185)

Chehalis River Basin Land Trust Preserving Land in the Chehalis River Basin

The Chehalis River Basin Land Trust will use this grant to buy 157 acres with about 1.3 miles of shoreline on the East Hoquiam River, 1 mile of fish-bearing stream, and 77 acres of wetlands. The land, currently on the market for housing development, is next to 670 acres of protected habitat. The land trust will contribute \$39,000 in donations of cash and labor. This project will benefit chum, coho, and Chinook salmon and steelhead trout. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1442)

Chehalis Basin Fisheries Task Force Removing a Barrier to Migrating Fish Wildcat Creek

The Chehalis Basin Fisheries Task Force will use this grant to design, permit, and remove a barrier to migrating fish in Wildcat Creek near McCleary as it passes under Wildcat Road. The task force will replace the barrier with a concrete bridge. The creek is used by coho salmon. The task force will contribute \$52,041. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1104)

Chehalis Basin Fisheries Task Force Restoring Access for Migrating Fish in Damon Creek

The Chehalis Basin Fisheries Task Force will use this grant to design and permit a project to remove a culvert where Kirkpatrick Road meets Damon Creek near Aberdeen. Culverts are pipes or other structures that carry water under roads and often block fish migration because they are too steep, too tall, or too small to allow fish to pass through easily. The creek is used by Chinook, coho, and chum salmon. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1184)

Quinault Indian NationGrant Awarded: \$150,000Assessing and Treating Invasive Knotweed Along the Quinault River

The Quinault Indian Nation's Division of Natural Resources will use this grant to survey and treat invasive knotweed in the lower Quinault River floodplain. The Nation will survey 1,796 acres and expects to treat an estimated 875 acres infested with knotweed. Knotweed grows very aggressively along streambeds and in wet places, creating dense colonies that make it hard for native plants beneficial to salmon to survive. The Nation will contribute \$26,473 in staff labor and a federal grant. The river is used by Chinook, coho, and chum salmon. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1315)



washington state recreation and conservation office Salmon Recovery Funding Board

Grant Awarded: \$210,000

Grant Awarded: \$294,897

Grant Awarded: \$79,000

Projects in Island County

Northwest Straits Marine Conservation Foundation Restoring Hidden Beach

The Northwest Straits Marine Conservation Foundation will use this grant to restore habitat for salmon, the food they eat, and other wildlife along Hidden Beach. The foundation will remove creosote, or chemical-treated wood, large rock, concrete, and other debris from the beach to restore the shoreline back to a more natural state. The foundation also will plant native trees and shrubs along the shoreline. Planting trees and bushes along a shoreline shades the water, cooling it for fish and their eggs in the gravel. 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 and covering the beach, where it can smother fish spawning gravel. The shoreline is used by Chinook salmon and steelhead trout, 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 foundation will contribute \$234,708 in cash and donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1342)

Skagit Fisheries Enhancement Group Grant Awarded: \$128,480 **Prioritizing Barriers to Migrating Fish throughout Island County**

The Skagit Fisheries Enhancement Group will use this grant to assess barriers to migrating fish throughout Island County. The enhancement group will look at barriers within shoreline along northeast Whidbey Island and east Camano Island and all culverts near the shoreline in Saratoga Pass between Camano and Whidbey Islands. The area is used by Chinook salmon and steelhead trout, 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 enhancement group will contribute \$22,673 in donations of equipment and labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1343)

Whidbey Camano Land Trust **Conserving Elger Bay Estuary**

The Whidbey Camano Land Trust will use this grant to expand the 38-acre Elger Bay Estuary Preserve, by buying 20 acres next to the preserve. The land to be purchased includes 17 acres of the Elger Bay tidal estuary and 3 acres of forest on the wetland fringe. This project will protect intact habitats. 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 land trust will contribute \$40,250 in donations of land and labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1336)

Funding Board

Grant Awarded: \$128,800

Total: \$482,280

Grant Awarded: \$225,000



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Projects in Jefferson County

Hood Canal Salmon Enhancement Group Conserving Land in the Big Quilcene Moon Valley

The Hood Canal Salmon Enhancement Group will use this grant to buy 30 acres of historic floodplain in the Moon Valley Reach downstream of the State Route 101 bridge. This project will allow for future restoration work to re-connect floodplain habitat with the Big Quilcene River and improve both water quality and habitat. The river is used by chum salmon and steelhead trout, 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 enhancement group will contribute \$66,872 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1285)

Hood Canal Salmon Enhancement Group Designing the Duckabush River Estuary Crossing

The Hood Canal Salmon Enhancement Group will use this grant to design the removal and replacement of the U.S Route 101 causeway and the reconnection of the north channel. It also will pay for the purchase of key properties in the project area. Redesigning the crossing of the highway across the lower Duckabush River will allow natural processes to occur across the area and will reconnect the river and tidal habitats within the Duckabush Estuary. The river is used by Chinook and chum salmon and steelhead trout, all of which are 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 \$491,479 in a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1720)

Hood Canal Salmon Enhancement GroupGrant Awarded: \$191,250Planting Native Vegetation and Removing Knotweed Near Hood Canal Rivers

The Hood Canal Salmon Enhancement Group will use this grant to remove invasive knotweed from about 44 stream miles along the lower sections of Union, Tahuya, Dewatto, Dosewallips, Big and Little Quilcene Rivers, and Big Anderson and Big Beef Creeks. The enhancement group also will plant native vegetation across about 15 acres of surrounding habitat, helping to further protect the habitat from invasive species. 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 river is used by Chinook and chum salmon and steelhead 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 enhancement group will contribute \$33,750 in a state grant and donations of labor



washington state recreation and conservation office Salmon Recovery Funding Board

Total: \$3,606,748

Grant Awarded: \$289,184

Grant Awarded: \$2,797,458



washington state recreation and conservation office Salmon Recovery Funding Board

and materials. Visit RCO's online Project Snapshot for <u>more information and photographs of this</u> <u>project</u>. (19-1296)

Jefferson County Grant Awarded: \$138,527 Buying and Protecting Land around the Lower Big Quilcene River

Jefferson County Public Health will use this grant to buy and protect 2 acres around the Big Quilcene River. The project will include removing structures and planting native trees and bushes along the shoreline to shade the water, cooling it for fish. The shoreline 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 eggs incubating in the spawning gravel. The river is used by chum salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act, and coho salmon, which is a federal species of concern. Jefferson County will contribute \$25,326 in conservation futures.¹ Visit RCO's online Project Snapshot for <u>more information and</u> photographs of this project. (19-1339)

The Nature Conservancy Restoring Habitat in the Lower Clearwater River

The Nature Conservancy will use this grant to remove two derelict fish trap and weir structures, remove one culvert, and complete an assessment of other culverts that pose as barriers to migrating fish in the Clearwater River in the Clearwater Forest Reserve in Jefferson County. Culverts are pipes or other structures that carry water under roads and often block fish migration because they are too steep, too tall, or too small to allow fish to pass through easily. In addition, The Nature Conservancy will thin 60 acres of forests along the river to improve forest health and survey and treat invasive weeds on about 10.5 acres. When implement, the project will help connect more than 1 mile of habitat in tributaries and wetlands. The river is used by coho salmon. The Nature Conservancy will contribute \$40,008 in donated labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1522)

Projects in King County

King County Reconnecting the Riverbend Floodplain

The King County Water and Land Resources Division will use this grant to restore 52 acres of floodplain habitat along the Cedar River by removing about a half-mile of levee and about 180,000 cubic yards of fill. The County also will plant native vegetation on about 28 acres and will build floodplain side channels totaling nearly 1 mile in length. The grant is the final piece of

Grant Awarded: \$190,329

Total: \$1,536,826

Grant Awarded: \$816,866

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.



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funding for this \$6.7 million project, which will enhance and create habitat in the floodplain for adult salmon to spawn and juvenile salmon to rest and feed. The project area will be managed as a natural area to accommodate low-impact recreation. The project also will reduce flooding risk to nearby properties. The Cedar River is used by Chinook salmon and steelhead trout, both of which are listed as threatened with extinction under the federal Endangered Species Act; by coho salmon, which is a federal species of concern; and by sockeye salmon. The county will contribute more than \$1 million in other grants. Visit RCO's online Project Snapshot for more information and photographs of this project. (18-1258)

King County

Grant Awarded: \$295,895

Removing Part of Lones Levee to Restore the Middle Green River

The King County Water and Land Resources Division will use this grant to restore about .3 mile of the middle Green River immediately, and create .6 mile of off channel habitat and about 20 acres of surrounding floodplain habitat east of Auburn. King County will remove one-third mile of levee, move gravel from the levee's core to the nearby river and floodplain, and excavate a small side channel to encourage water to flow into a historic river channel. King County also will place trees removed from the levee in the river and floodplain to create places for fish to rest, feed, and hide from predators. The trees will slow the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. The levee removal and tree placement will change the flow of the river, creating riffles and pools, which give salmon more varied habitat. In addition, King County will remove invasive plants and replant the riverbanks with native plants to shade the water and cool it for fish. To reduce flooding and erosion, the County will build a flood protection structure to protect farmland from erosion and a berm to reduce overbank flooding. Finally, the County will build a gravel road for long-term monitoring and maintenance. The Green River is used by Chinook salmon and steelhead trout, 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 \$104,105. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1155)

Seattle

Grant Awarded: \$424,065

Restoring Habitat in and Along the Cedar River

Seattle Public Utilities will use this grant to design and permit a project that will reconnect and enhance floodplain habitat and add large wood in one-third mile of the Cedar River in Maple Valley. Floodplains and side channels provide opportunities for young fish to feed and grow and escape floodwaters. Adding logs to a stream also provides places for fish to feed, rest, and hide from predators, as well creates the type of varied habitat required by salmon. Seattle Public Utilities will by reconnect at least 5 acres of floodplain and wetlands to the Cedar River by removing a berm, floodplain fill, and riprap along the river's right bank. In addition, Seattle Public Utilities will enhance an existing side channel by removing a culvert that carries water



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from the side channel to the river. The Cedar River is used by Chinook salmon and steelhead trout, 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 Public Utilities will contribute \$74,835. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1319)

Projects in Kitsap County

Kitsap County Restoring Chico Creek Salmon Park Habitat

Kitsap County will use this grant to complete habitat enhancement work associated with the removal of an undersized culvert on Chico Creek under Golf Club Hill Road. The culvert, which is a structure that carries the creek and its fish under the road, is being replaced with a 140-foot bridge in another project. The County will control weeds and plant the banks of the creek once the culvert is removed. 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 creek is used by steelhead trout, 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 County will contribute \$48,000 in staff labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19 - 1390)

Projects in Kittitas County

Kittitas Conservation Trust Designing the Restoration of Habitat at Hanson Ponds

The Kittitas Conservation Trust will use this grant to develop final designs for a project to enhance nearly 82 acres and 2.3 miles of salmon habitat at Hanson Ponds near the Yakima River, south of Cle Elum. The designs will include removing barriers to migrating fish, adding tree root wads and logs into the stream, and planting native vegetation along the shoreline. Adding logs to a stream creates places for fish to rest, feed, and hide from predators. It also slows the water, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the water, creating riffles and pools, which give salmon more varied habitat. Planting trees and bushes along a shoreline shades 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 ponds are used by steelhead trout, which is a species listed as

Grant Awarded: \$266,339

Total: \$266,339

Total: \$1,954,241

Grant Awarded: \$114,629



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threatened with extinction under the federal Endangered Species Act. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1502)

Kittitas County Conservation DistrictGrant Awarded: \$883,088Fixing Barriers to Fish Passage in Naneum and Coleman Creeks

The Kittitas County Conservation District will use this grant to correct two barriers to fish passage in Naneum Creek and two in Coleman Creek, including the lowermost in each. The grant also will fund designs for removing three additional fish passage barriers at the Cascade Irrigation District intersections with Naneum, Coleman, and Caribou Creeks. The designs call for by building siphons to pass the canal under each stream. The conservation district will work with landowners and irrigators to improve farm irrigation systems by consolidating and rebuilding the diversion structures. Diversions pull water from streams to irrigate land. Sometimes fish can get caught in these systems and die when the water gets too low or too hot. The district also will rebuild the streambed and irrigation diversions with fish screens and fishways to allow safe passage. This work is part of a larger effort to improve fish passage in the Wilson-Naneum-Cherry watershed in the Kittitas Valley near Ellensburg. Cumulatively, the watersheds include 394 square miles and about 270 stream miles, but there are fish passage barriers that make much of this area inaccessible. The creeks are used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by Chinook and coho salmon. The Kittitas County Conservation District will contribute \$191,628 in state and federal grants. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1721)

Kittitas County Conservation District Improving Habitat in Swauk Creek

Grant Awarded: \$168,691

The Kittitas County Conservation District will use this grant to combine two irrigation diversion systems into one on Swauk Creek, northeast of Ellensburg. Diversion systems take water from streams to irrigate farmland. Successful systems prevent salmon from entering and getting trapped and dying in irrigation systems. The conservation district also will plant cottonwood near the new diversion structure. Planting trees and bushes along waterways shades 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 creek is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$60,464 in federal grants and donations of materials. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1427)

Mid-Columbia Fisheries Enhancement Group Grant Awarded: \$199,764 Assessing Cottonwood Forests near the Upper Yakima River

The Mid-Columbia Regional Fisheries Enhancement Group will use this grant to assess how much of the cottonwood forests near the upper Yakima River have been lost and identify restoration opportunities. Since 1942, river regulation and land use activities have wiped out 33 percent of the forest on the floodplain. Forests along rivers shade the water, cooling it for fish. The trees also drop branches and leaves into the water, which provide food for the insects salmon eat. Finally, the tree roots help keep soil from entering the water, where it can smother fish spawning gravel. The river is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The enhancement group will contribute \$36,431 in cash and donations of labor. In addition, the Confederated Tribes and Bands of the Yakama Nation, Kittitas County Conservation District, Washington Department of Fish and Wildlife, and the Kittitas County Public Works Department are contributing resources and expertise. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1524)

Mid-Columbia Fisheries Enhancement Group Improving Spoon Full Farm Side Channels

The Mid-Columbia Fisheries Enhancement Group will use this grant and support from the landowner to deepen .6 mile of side-channel habitat, place logs in the side channels, and plant its banks to improve habitat for young salmon and steelhead in the Yakima River northwest of Thorp. Adding logs to the side channels creates places for fish to rest, feed, and hide from predators. It also slows the water, which reduces erosion and allows small rocks to settle to the bottom, creating areas for fish to spawn. Finally, logs change the flow of the water, creating riffles and pools, which give fish more varied habitat. Planting trees and bushes along a shoreline shades 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 Yakima River is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The enhancement group and landowner will contribute \$60,300 in a federal grant and donations of labor. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1430)

Trout Unlimited Inc. Improving Yakima River Steehead Survival

Trout Unlimited will use this grant to eliminate the current point of diversion of irrigation water from Tjossem Ditch near Ellensburg. Diversion systems take water from streams to irrigate farmland. The seven water users diverting water from the ditch will convert to on-demand, alternative water delivery systems. Successful systems prevent salmon from entering and getting

Grant Awarded: \$338,295

Grant Awarded: \$249,774



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trapped and dying in irrigation systems. The Tjossem diversion's aging fish screens often allow fish to enter the ditch but not to get out. In addition, to maintain flows into the irrigation ditch, a small side channel of the Yakima River is manipulated and results in damage to fish habitat. This project will close the headgate and the diversions from the Tjossem Ditch. The Yakima River is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. Trout Unlimited Inc. will contribute \$49,000 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1424)

Projects in Klickitat County

Total: \$371,096

Confederated Tribes and Bands of the Yakama Nation Grant Awarded: \$121,500 Planning a Project to Restore Spring Creek Fish Passage

The Yakama Nation will use this grant to plan a project to remove a dam on Spring Creek that would open about 1.25 miles of habitat for migrating fish and 3 miles for freshwater fish. The river is used by Chinook and coho salmon and steelhead trout, 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. (19-1551)

Eastern Klickitat Conservation DistrictGrant Awarded: \$249,596Removing a Levee to Support Walaluuks Creek Restoration

The Eastern Klickitat Conservation District will use this grant to remove a levee that constricts Walaluuks Creek and place large tree root wads and logs in the creek to restore habitat. Adding logs to a creek creates places for fish to rest, feed, and hide from predators. It also slows the creek, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. The conservation district also will remove Himalayan blackberry and replant the area with native species. Planting trees and bushes along a shoreline shades the water, cooling it for fish. The plants 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 river is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$44,100 in a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1552)



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Total: \$653,796

Projects in Lewis County

Grant Awarded: \$599,828

Grant Awarded: \$53,968

Cowlitz Indian Tribe Restoring Habitat in the Cispus River

The Cowlitz Indian Tribe will use this grant to partner with the U.S. Forest Service to restore about .3 mile of the Cispus River and Yellowjacket Creek in eastern Lewis County near the Cispus Learning Center, an outdoor education facility. The tribe will place large wood structures in the river and the creek to create places for fish to rest, feed, and hide from predators. The structures also will slow the water, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, they change the flow of the river, creating riffles and pools, which give salmon more varied habitat. The Tribe and U.S. Forest Service also will plant native trees and shrubs in the floodplain and along the banks. Planting trees and bushes along a shoreline shades the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat. The roots of the plants help keep soil from entering the water, where it can smother fish spawning gravel. The river and creek are used by Chinook and coho salmon and steelhead trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Tribe will contribute \$599,827 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1221)

Lewis Conservation District Improving Berwick Creek Fish Passage

The Lewis Conservation District will use this grant to remove two undersized culverts and replace one with a bridge and decommission a section of private driveway to restore the other. Culverts are pipes or other structures that carry water under roads and often block fish migration because they are too steep, too tall, or too small to allow fish to pass through easily. The site is the only privately owned barrier on Berwick Creek and will compliment Lewis County's efforts to remove other barriers downstream. The conservation district also will place large woody materials, such as tree root wads and logs, in the creek to create places for fish to rest, feed, and hide from predators. The wood also slows the creek, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, the wood changes the flow of the river, creating riffles and pools, which give salmon more varied habitat. The creek is used by coho salmon and steelhead and cutthroat trout. The creek is used by coho salmon for more information and photographs of this project. (19-1280)

Projects in Mason County

Great Peninsula Conservancy Buying and Protecting Land on the Hahobas Shoreline

The Great Peninsula Conservancy will use this grant to buy about 100 acres of lowland forest and shoreline near Dewatto Bay in Mason County. The land includes about .6 mile of Hood Canal shoreline, 1.2 miles of streams, and 8.45 acres of tidelands. The land includes habitat for salmon and surf smelt, as well as eelgrass beds, feeder bluffs, streams, and forest. The river is used by Chinook and chum salmon, and steelhead trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act, and coho salmon, which is a federal species of concern. The conservancy will contribute \$721,000 in a federal grant and donations of cash. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1293)

Projects in Okanogan County

Cascade Columbia Fisheries Enhancement Group Grant Awarded: \$37,700 Assessing and Designing Upper Methow River Restoration

The Cascade Columbia Fisheries Enhancement Group will use this grant to develop restoration concepts for a 2-mile stretch of the upper Methow River, where decades of floodplain encroachment have diminished the amount and type of habitat for fish. The enhancement group will compile available data, identify and fill data gaps, initiate stakeholder outreach, and develop several restoration concepts and a protection strategy for projects in this high-priority reach of the river. The river is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The enhancement group will contribute \$42,500 in a local grant and donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1470)

Cascade Columbia Fisheries Enhancement Group Grant Awarded: \$160,326 Assessing Fish Passage Barriers in the Okanogan Subbasin

The Cascade Columbia Fisheries Enhancement Group will use this grant to assess barriers to migrating fish throughout the Okanogan subbasin. With this assessment, the entire upper Columbia River region would have current and comprehensive fish passage data by 2022. Having a complete understanding of fish passage will allow the region to prioritize investments and leverage funding to correct and remove barriers. The subbasin is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The enhancement group will contribute \$33,500 from another grant and donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1471)

Total: \$511,000

Grant Awarded: \$511,000

Total: \$303,122







Confederated Tribes of the Colville Reservation Grant Awarded: \$71,086 **Compiling Data to Inform Methow River Monitoring Efforts**

The Confederated Tribes of the Colville Reservation will use this grant to collect sediment data to inform the Methow Ecosystem Diagnosis and Treatment (EDT) model. This model measures changes on the landscape that impact salmon survival. Data will be integrated into the next EDT model run, which will help focus where future restoration activities could occur. The river is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The Tribe will contribute \$60,000 in donations of equipment and labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1486)

Methow Salmon Recovery Foundation Restoring Side Channel Habitat in the Methow River

The Methow Salmon Recovery Foundation will use this grant to convert a surface water diversion system on the Methow River to a groundwater well. Diversion systems take water from streams to irrigate farmland. Converting the diversion system will eliminate the need for the landowner to remove the large wood in the side channel to keep the diversion functioning. Large wood structures, such as tree roots and logs, are important for salmon because they create places for the fish to rest, hide from predators, and feed. The river is used by Chinook salmon, which is a species listed as endangered under the federal Endangered Species Act, and by steelhead trout, which is a species listed as threatened with extinction under the Act. The Methow Salmon Recovery Foundation will contribute \$6,100 in donations of cash and labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1488)

Projects in Pacific County

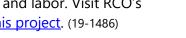
Cowlitz Indian Tribe Grant Awarded: \$160,924 Designing a Project to Restore Salmon Habitat in the West Fork Grays River

The Cowlitz Indian Tribe will use this grant to design a project to increase the quality and types of habitat for salmon in the West Fork Grays River. This project will create a design to restore a more diverse plant community along the river by thinning and replanting the existing forest with a more diverse mix of tree species. The future project also would reconnect river floodplains through the placement of large wood structures. Adding wood structures slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Implementation of this design also will help restore this section of the West Fork Grays River to a meandering channel. The river is used by Chinook, chum, and coho salmon, all of which are listed as threatened with extinction under the federal Endangered Species Act, as well as by steelhead trout, which are important to lower Columbia River steelhead recovery. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1216)

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Total: \$520,763



Grant Awarded: \$34,010



Pacific Conservation District Designing a Project to Restore Forks Creek

The Pacific Conservation District will use this grant to design a project to place trees with root wads in .4 mile of lower Forks Creek downstream of the Forks Creek Hatchery Diversion Dam, which is slated to be removed. Adding trees to the creek will help produce a wide variety of habitats good for salmon. The trees will capture and sort gravels released when the dam is removed. They will change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. They also create places for fish to rest, feed, and hide from predators. Trees also will slow the creek, which reduces erosion and washes the fine silt out of the gravel, creating healthy areas for salmon to spawn. The creek is used by Chinook and chum salmon. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1514)

Pacific Conservation DistrictGrant Awarded: \$120,000Designing a Project to Restore Redfield, Raimie, and Howard Creeks

The Pacific Conservation District will use this grant to develop designs to replace a fish barrier culvert, permanently remove a second culvert, add logs to creeks, address creek bank erosion, and plant native evergreen trees and shrubs along sections of Redfield, Raimie, and Howard Creeks-all of which are headwater streams of the Willapa Bay tributary, North River. Culverts are pipes or other structures that carry water under roads and often block fish migration because they are too steep, too small, or have waterfalls at their outlets that don't allow fish to pass through easily. Adding logs to a creek creates places for fish to rest, feed, and hide from predators. It also slows the creek, which reduces erosion and washes the fine silt out of the gravel, creating healthy areas for salmon to spawn. Finally, logs change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. The project also includes planting native trees and shrubs along the creeks. Planting along a shoreline shades the water, cooling it for fish. The plants also drop branches and leaves into the water, which provide food for the insects salmon eat. They also trap other branches and logs floating down the stream, which creates a system to maintain healthy habitat in the future. Finally, the roots of the plants help keep soil from entering the water, where it can smother fish spawning gravel. The creeks are used by Chinook and chum salmon. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1103)

Pacific Conservation District Replacing Fish Screens on the Willapa River

The Pacific Conservation District will use this grant to replace fish screens on agricultural producers' water pump intakes on the Willapa River in Pacific County. By replacing fish screens with ones that meet Washington Department of Fish and Wildlife's standards for fish protection, the project will help limit the risk of injury or death to young salmon migrating in the Willapa River. The river is used by Chinook and chum salmon. The Pacific Conservation District will

Grant Awarded: \$51,000

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Salmon Funding

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Grant Awarded: \$188,839

contribute \$9,000 in match from the Washington State Conservation Commission. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1102)

Projects in Pend Oreille County

Washington Department of Fish and Wildlife **Enhancing Ruby Creek Fish Passage and Habitat**

The Department of Fish and Wildlife will use this grant to replace pipes that carry North Fork Ruby Creek and Little Ruby Creek under a county road and rebuild 1.5 miles of the road. Rebuilding the road will reduce sediment entering the stream and improve drainage. The work also will restore access for migrating fish and enhance habitat in Ruby Creek for bull trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The project will restore about 7 miles of high-quality stream habitat for native trout species. The department will contribute \$156,910 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (18-1972)

Projects in Pierce County

Forterra

Designing a Project to Remove Chambers Creek Dam

Forterra will use this grant to create a preliminary design for a project to remove the aging Chambers Creek Dam on Chambers Creek between Lakewood and University Place. The dam is a barrier to migrating fish and contributes to fish dying and falling prey to marine mammals and fish-eating birds. Removing the dam would open an estimated 4 miles of habitat in Chambers Creek. The river is used by steelhead trout, which are listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which is a federal species of concern. Forterra will contribute \$164,000 in a private grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1119)

Forterra

Protecting Land along South Prairie Creek

Forterra will use this grant to buy 33.6 acres along South Prairie Creek and create a design for its restoration. This project would help connect habitat restoration efforts on nearby land as well. The river is used by Chinook salmon and steelhead trout, 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. Forterra will contribute \$568,167 in conservation futures²

Total: \$135,500

Grant Awarded: \$135,500

Total: \$1,176,613

Grant Awarded: \$74,823

Grant Awarded: \$393,233





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.



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and donations of cash. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1118)

Nisqually Land Trust Conserving Habitat along Ohop Creek

The Nisqually Land Trust will use this grant to buy 33.6 acres along Ohop Creek, about 1.2 miles downstream of Ohop Lake. The land includes about 17 acres of floodplain and about .1 mile of the creek. This project will connect protected habitat along the creek. The creek is used by Chinook salmon and steelhead trout, 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 land trust will contribute \$14,500 in a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1321)

Nisqually Land Trust Preserving Habitat in the Lackamas Flats

The Nisqually Land Trust will use this grant to buy 11.4 acres in the Lackamas Flats near the Nisqually River floodplain, including .1 mile of shoreline along Wilcox Reach in Pierce County. By protecting this land, the land trust would be providing an opportunity to remove residential and recreational structures and infrastructure in the floodplain. The river is used by Chinook salmon and steelhead trout, 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 land trust will contribute \$9,000 in a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1320)

South Puget Sound Salmon Enhancement Group **Designing the Restoration of Titlow Estuary**

The South Puget Sound Salmon Enhancement Group will use this grant to create design and permit planning documents for a project to replace a fish-blocking culvert with multiple rail and pedestrian bridges. The enhancement group also will coordinate with the Metropolitan Park District of Tacoma and the City of Tacoma to create designs to support salt marsh restoration and improve water quality in Titlow Estuary. Culverts are pipes or other structures that carry streams under roads and railways. They often block fish migration because they are too small or too steep for fish to swim through easily. Once completed, the project will allow fish to reach the restored estuary and will increase overall food production for fish and other wildlife in Puget Sound. The restored estuary will be used by Chinook salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species, and by coho salmon, which is a federal species of concern. The enhancement group will contribute \$27,000 in a local grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1113)

Grant Awarded: \$50,000

Grant Awarded: \$81,390

Grant Awarded: \$150,000

South Puget Sound Salmon Enhancement Group Restoring Fish Passage in Lower Horn Creek

The South Puget Sound Salmon Enhancement Group will use this grant to correct two barriers in Horn Creek, a tributary to the Nisqually River, and expand access to more than 8 miles of upstream habitat. The enhancement group will replace the upper barrier with a bridge that will allow fish passage. The enhancement group also will create a deeper plunge pool just downstream of the lower barrier, allowing fish to better make their way passed a 5-foot waterfall as well as use a "fishway" built by the landowner. The creek is used by Chinook salmon and steelhead trout, both of which are listed as threatened with extinction under the federal Endangered Species Act, and by coho salmon, which are a federal species of concern. The Enhancement Group will contribute \$39,000 in cash. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1346)

Sumner

Buying Land in Pacific Pointbar

The City of Sumner will use this grant to buy land to accommodate a future setback levee along 1 mile of the right bank of the White River. The river is used by Chinook salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The City will contribute \$36,383 in cash and a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1116)

Projects in San Juan County

Friends of the San Juans Restoring Shoreline in the San Juan Islands

The Friends of the San Juans will use this grant to remove 215 feet of armoring in a pocket beach on southwest Lopez Island in the outer portions of MacKaye Harbor. Removing the degraded armor will uncover buried spawning habitat previously used by the fish salmon eat. The shoreline 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 \$7,368 in another grant. Visit RCO's online Project Snapshot for <u>more information and photographs of this</u> <u>project</u>. (19-1332)

San Juan County Planning Crescent Beach Restoration

The San Juan County Public Works Department will use this grant to begin planning a project to improve tidal and fish access to a large saltmarsh north of Crescent Beach Road. Currently, a too-small culvert is plugged with sand and restricting tidal exchange between Ship Bay and a lagoon. Culverts are pipes or other structures that carry water under roads and often block fish

Grant Awarded: \$206,167

Grant Awarded: \$41,752

Total: \$414,702

Grant Awarded: \$221,000

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Grant Awarded: \$16,420





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migration because they are too steep, to tall, or too small to allow fish to pass through easily. The county will complete a hydraulic study and design alternatives. Ship Bay is core spawning habitat for the herring, and Crescent Beach is a spawning beach for Pacific sand lance. Salmon eat both of those species. San Juan County will contribute \$3,000 in donations of cash. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1451)

San Juan Islands Conservation District Recovering Eelgrass in the San Juan Islands

Grant Awarded: \$100,000

The San Juan Islands Conservation District will use this grant to transplant eelgrass and distribute seeds in Blind and Wescott Bays. The district will monitor test plots in the bays to determine their success. Increasing eelgrass will support recovery of herring, Chinook salmon, and southern resident killer whales. Eelgrass beds provide important habitat for migrating Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$17,648 in donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1402)

San Juan Preservation Trust Protecting Griffin Bay Shoreline

The San Juan Preservation Trust will use this grant to buy a voluntary land preservation agreement, also called a conservation easement, to protect 7.3 miles of shoreline habitat, including about .1 mile of pocket beaches along San Juan Island's Griffin Bay. Protecting this area will support habitat for salmon, the food they eat, and other wildlife. The San Juan Islands near-shore 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 trust will contribute \$45,270 in donations of land. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1468)

Projects in Skagit County

Skagit Fisheries Enhancement Group Reconnecting Britt Slough with Forested Wetlands

The Skagit Fisheries Enhancement Group will use this grant to complete the work to reconnect 7.8 acres of forested floodplain wetlands near the outlet of Britt Slough. The project's goal is to increase Chinook salmon rearing habitat in the lower South Fork Skagit River. This type of offchannel rearing habitat is very rare and the lack of it limits the survival of Skagit River Chinook salmon juveniles when they migrate to the Pacific Ocean. Britt Slough drains several square miles of farmland and the southern portion of Mount Vernon. Historically it discharged to the South Fork Skagit River, but the slough was re-routed west in the late 1950s. The enhancement group re-route the slough southward into a forested wetland and create an exit from the

Grant Awarded: \$256,530

Total: \$1,952,176

Grant Awarded: \$286,056



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wetland to the South Fork Skagit River. This plan restores the original path of the slough and connects the wetland to the river, thereby giving fish access to and use of this habitat. The project will occur on land owned by Washington Department of Fish and Wildlife. The river is used by Chinook salmon and 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 enhancement group will contribute \$125,000 in a federal grant and engineering support from the Skagit Conservation District. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1420)

Skagit Land Trust Conserving Skagit Watershed Habitat

Grant Awarded: \$748,262

Seattle City Light and the Skagit Land Trust will use this grant to buy at least 62 acres of highquality Chinook habitat along a half-mile of shoreline in the upper Skagit River near Marblemount. Additional work will include identifying and evaluating other properties, conducting landowner outreach, inspecting potential sites, and getting appraisals. The river is used by Chinook salmon and steelhead and bull trout, all of which are species listed as threatened with extinction under the federal Endangered Species Act. The Skagit Land Trust will contribute \$110,295. This grant was funded as a loan in August 2019 as the first project to benefit from a new program established by the Puget Sound Partnership called the Rapid Response Fund. This grant will be used to repay the loan. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1414)

Skagit River System Cooperative Controlling Invasive Species in the Skagit River Basin

The Skagit River System Cooperative and Skagit Fisheries Enhancement Group will use this grant to control invasive weed species and/or plant native trees and shrubs at nine sites and 223 acres along the banks of the Skagit River. All of the sites are owned or partly managed by public agencies. The goal of this project is to ensure the success of previously planted areas, which can be threatened by uncontrolled weeds. Planting trees and bushes along a shoreline shades 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 Skagit River is used by Chinook salmon and 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 cooperative will contribute \$30,122 in a local grant and donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1422)

Grant Awarded: \$167,858



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Skagit River System Cooperative Restoring Barnaby Reach

Grant Awarded: \$750,000

The Skagit River System Cooperative will use this grant to proceed with final design and construction of the long-anticipated first phase of the Barnaby Slough restoration project. This project will remove human-made barriers to migrating juvenile salmon, opening about .9 mile and 33 acres of off-channel rearing habitat, while also reducing flooding problems for homeowners along Martin Road. Rearing habitat, where young salmon feed and grow before migrating to the Pacific Ocean, is limiting Skagit River Chinook Salmon, and Barnaby Slough represents the largest floodplain restoration project for that type of habitat currently being planned in the Skagit River. Historically the Skagit River migrated across the area, creating an extensive network of sloughs, wetlands, ponds, side channels, and other off-channel habitats. Unfortunately, the area has been degraded with dikes, culverts, and other structures associated with a state steelhead hatchery that closed in 2007. A partnership including the Skagit River System Cooperative, Department of Fish and Wildlife, Seattle City Light, and The Nature Conservancy has been working for almost a decade with the nearby community to restore habitat conditions and reduce flooding and erosion risks in Barnaby Reach. The river is used by Chinook salmon and 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 cooperative will contribute \$135,000 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1421)

Projects in Skamania County

Columbia Land Trust Conserving the Wildboy Forest and Watershed

The Columbia Land Trust will use this grant to buy the 1,288-acre Wildboy Forest, which includes the Kwoneesum Dam, for future removal of the dam and restoration of the habitat in the watershed in Skamania County. The area includes .5 mile of the West Fork Washougal River, 2.5 miles of Wildboy Creek, and .9 mile of Texas Creek. The land purchase will conserve 11 acres of forested wetlands, prevent future mining, and provide opportunities for public access. A forest management plan will be developed to maintain trees along the river, which shade the water and keep it cool for fish. Trees along the river also drop branches and leaves into the water, which provide food for the insects salmon eat. Finally, the tree roots help keep soil from entering the water, where it can smother fish spawning gravel. Future removal of the Kwoneesum Dam will provide salmon and steelhead access to an additional 6.5 miles of stream habitat. The river is used by coho salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The land trust will contribute more than \$2.6 million in other grants. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1215)

Grant Awarded: \$500,000

Total: \$748,367

Lower Columbia Fish Enhancement Group **Restoring Habitat in the Washougal River and Timber Creek**

The Lower Columbia Fish Enhancement Group will use this grant to restore habitat for summer steelhead in the Washougal River and Timber Creek. The enhancement group will place large wood and boulders in the project area to create places for fish to rest, feed, and hide from predators. The materials also slow the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, they change the flow of the river, creating riffles and pools, which give salmon more varied habitat. The enhancement group also will add salmon carcasses to enhance nutrients in the project area. The river is used by steelhead trout, which are listed as threatened with extinction under the federal Endangered Species Act. The enhancement group will contribute \$44,300 in donations of labor and materials. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1214)

Projects in Snohomish County

Snohomish County Controlling Knotweed Along the Stillaguamish River

The Snohomish County Department of Public Works will use this grant to control knotweed on about 120 acres along the South Fork and North Fork of the Stillaguamish River between Oso and Arlington. The County also will plant trees along the shorelines to shade the water, cooling it for fish. The trees will drop branches and leaves into the water, which provide food for the insects salmon eat. Also, the roots of the plants help keep soil from entering the water, where it can smother fish spawning gravel. The river is used by Chinook salmon and steelhead trout, 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 County of will contribute \$35,500 in a state grant and donations of materials. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1151)

Snohomish County Restoring Chatham Acres

The Snohomish County Department of Public Works will use this grant to plan and design a project to add logs and plant native trees and shrubs along the North Fork Stillaguamish River and Chatham Acres, a known area of cold water for fish. Adding logs to a stream creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. Planting trees and bushes along a shoreline shades the water, cooling it for fish. The river is used by Chinook salmon and steelhead trout, both of which are species listed as threatened with

Total: \$499,070

Grant Awarded: \$248,367

Grant Awarded: \$50,000





Grant Awarded: \$40,000



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Grant Awarded: \$250,000

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 <u>more information and photographs</u> <u>of this project</u>. (19-1147)

Sound Salmon Solutions Restoring Habitat in Grant Creek

Sound Salmon Solutions will use this grant to add large root wads and logs to Grant Creek, a tributary to the lower North Fork Stillaguamish River; plant native vegetation along 12.3 acres of creek bank; and reconnect the creek to a historic side channel. Adding logs to a creek creates places for fish to rest, feed, and hide from predators. It also slows the creek, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. Planting trees and bushes along a shoreline shades 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 river is used by Chinook salmon and steelhead trout, 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. Sound Salmon Solutions will contribute \$44,118 in a state grant. Visit RCO's online Project Snapshot for <u>more information</u> and photographs of this project. (19-1366)

Stillaguamish Tribe of Indians Conserving Stillaguamish River Tidal Wetlands

The Stillaguamish Tribe of Indians will use this grant to buy about 248 acres of former wetlands at the mouth of the Stillaguamish River. This land was diked and drained in the late 1800s for farming and is only about 7 feet above sea level. Buying the land would be the first step in supporting the Tribe's efforts to move the levees back, flooding the land once again for habitat for Chinook salmon. The Tribe also will coordinate with neighbors and other interested groups. The river is used by Chinook salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Tribe will contribute \$1.3 million in state and federal grants. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1365)

Projects in Thurston County

Capitol Land Trust Preserving Land Near McLane Creek

The Capitol Land Trust will use this grant to buy 55 acres near McLane Creek in lower Ed Inlet. The land includes 9.5 acres of tidal mud flats, 46 acres of coastal wetlands, and .6 mile of

Grant Awarded: \$159,070

Grant Awarded: \$75,000

Total: \$927,871



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shoreline. 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. The land trust will contribute \$265,500 in a federal grant and donations of land. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1398)

South Puget Sound Salmon Enhancement GroupGrant Awarded: \$595,000Enhancing Habitat in the Deschutes River

The South Puget Sound Salmon Enhancement Group will use this grant to add large tree root wads and logs to about .3 mile of the Deschutes River and plant the banks of a side channel. Adding logs to a river creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs 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 river is used by Chinook salmon and steelhead trout, 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 enhancement group will contribute \$105,000 from another grant. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1443)

South Puget Sound Salmon Enhancement Group Replacing a Barrier to Fish Passage on Beatty Creek

The South Puget Sound Salmon Enhancement Group will use this grant to replace a barrier to fish passage where Beatty Creek passes under Chelsie Lane. The barrier is a culvert, which is a pipe or other structure that carries water under a road. Culverts can block fish migration when they collapse. The culvert failed in 2018, and portions of the road and dirt inundated the creek and damaged utilities affecting 15 households. Replacing the culvert will restore natural stream processes and mitigate for climate change. The creek is used by steelhead trout, 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 resident and searun cutthroat trout. The enhancement group will contribute \$560,207 from donations of cash, labor, and materials. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1417)

Thurston County

Grant Awarded: \$80,000

Grant Awarded: \$177,871

Removing a Barrier on Peissner Road at Elbow Lake Creek

Thurston County Public Works will use this grant to replace a culvert with a bridge on Peissner Road as it passes over Elbow Lake Creek, a tributary to the Nisqually River. A culvert is a pipe or



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other structure that carries streams under roads. They often are barriers to fish migration because they can be too steep or too small for fish to pass through easily. The downstream barriers have been removed. Removing this barrier will allow the creek to create a more natural, meandering stream channel and will give fish access to upstream habitat. The bridge also will allow more wood and gravel to move downstream. The river is used by Chinook salmon and steelhead trout, 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 County will contribute \$44,000 in cash and donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1349)

Projects in Wahkiakum County

Total: \$215,000

Grant Awarded: \$215,000

Wahkiakum Conservation District **Restoring Cadman Creek Habitat**

The Wahkiakum Conservation District will use this grant to work with Wahkiakum County to replace a culvert, which is partially blocking fish access to about 1 mile of upstream habitat in Cadman Creek, a tributary in the Skamokawa River watershed. Culverts are large pipes or other structures that carry water under roads. The conservation district also will place logs in the creek to create places for fish to rest, feed, and hide from predators. The logs also slow the water, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the creek, creating riffles and pools, which give salmon more varied habitat. The conservation district also will plant trees and shrubs along the creek shoreline to shade the water, cooling it for fish. The plants drop branches and leaves into the water, which provide food for the insects salmon eat. The roots of the plants help keep soil from entering the water, where it can smother fish spawning gravel. The creeks are used by coho salmon, which is a species listed as threatened with extinction under the federal Endangered Species Act, as well as by steelhead trout, which are important to lower Columbia River steelhead recovery. The conservation district will contribute \$54,250 in state and federal grants. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1226)

Projects in Walla Walla County

Tri-State Steelheaders Inc. Building Fish Passage on Mill Creek

The Tri-State Steelheaders will use this grant to retrofit about 1 mile of a concrete channel from Park Street to Roosevelt Avenue to allow fish passage in Mill Creek through Walla Walla. This project is part of a larger effort to correct fish passage problems in the Mill Creek Flood Control Project. Existing flood control measures on Mill Creek include a concrete channel that extends

Total: \$3,137,559

Grant Awarded: \$2,750,000



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more than 2 miles through Walla Walla. The concrete channel creates passage problems and poor habitat because of low flows, high summer water temperatures, and high water velocities. Often by mid-May, fish get trapped in the flood control channel because there isn't enough water and what's there is too warm and they die. Upstream of the flood control project is a critical and underused area for spawning and rearing. Restoring passage to upper Mill Creek provides an important recovery opportunity for steelhead and bull trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. This project will also benefit reintroduced spring Chinook salmon. The Tri-State Steelheaders will contribute \$500,000 from a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1718)

Tri-State Steelheaders Inc. Designing the Restoration of the Walla Walla River

The Tri-State Steelheaders will use this grant to produce final designs for the third phase of a restoration project on 2 miles of the Walla Walla River near Lowden. This design ultimately will lead to a restoration project that will improve floodplain connection and add logs to the river. Adding logs to a river creates places for fish to rest, feed, and hide from predators. The logs also slow the water, which reduces erosion and allows small rocks to settle to the bottom, creating areas for salmon to spawn. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. This section of the river is identified as a major spawning area for steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act, and for bull trout and reintroduced Chinook salmon. The Tri-State Steelheaders will contribute \$9,750 in a state grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1497)

Walla Walla County Conservation District Adding Logs to the Touchet River to Enhance Habitat

Grant Awarded: \$332,309

Grant Awarded: \$55,250

The Walla Walla County Conservation District will use this grant to place large tree root wads and logs in 1 mile of the Touchet River near Waitsburg. Adding logs to a river creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. This is the third part in a larger effort to restore the Touchet River. The river is used by steelhead, which is a species listed as threatened with extinction under the federal Endangered Species Act, and by reintroduced spring Chinook salmon. The conservation district will contribute \$60,000 in a federal grant. Visit RCO's online Project Snapshot for <u>more information and photographs of this project</u>. (19-1461)

Projects in Whatcom County

Lummi Nation Grant Awarded: \$64,310 Monitoring Chinook Salmon in the South Fork Nooksack River

The Lummi Nation will use this grant to monitor juvenile Chinook salmon in the South Fork Nooksack River. Data collected from a passive integrated transponder (PIT) antenna array, kind of like a barcode for individual fish, will help scientists better understand the Chinook life history. About 1,200 Chinook will be captured upstream from the PIT-array from late winter to late spring and tagged so scientist can monitor their distribution and movement. Secondary recaptures in the lower Nooksack River will give scientists an understanding of their freshwater survival. The river is used by Chinook salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The Lummi Nation will contribute \$11,541 in donations of labor. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1393)

Nooksack Indian Tribe **Restoring Habitat in the North Fork Nooksack River**

The Nooksack Indian Tribe will use this grant to build 27 log structures to restore the side channels in the North Fork Nooksack River near Maple Falls. Side channels are smaller branches of the river that are important areas for salmon to spawn. Side channels are less susceptible to flows that wash out gravel and salmon redds (nests). Adding logjams to a river slows the water, which reduces erosion and encourages the water to flow into the protected side channels, creating additional areas for salmon to spawn. Logiams also create places for fish to rest, feed, and hide from predators. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied and productive habitat. The Tribe also will plant native trees and shrubs on the log structures. The plants drop branches and leaves into the water, which provide food for the insects salmon eat and the plant roots keep soil from entering the water, where it can smother fish spawning gravel. The river is used by Chinook salmon and steelhead trout, both of which are species listed as threatened with extinction under the federal Endangered Species Act. The Tribe will contribute \$102,147 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1395)

Projects in Yakima County

Confederated Tribes and Bands of the Yakama Nation Grant Awarded: \$120,000 **Designing a Project to Restore Ahtanum Creek**

The Yakama Nation will use this grant to design a project to restore floodplain connectivity and increase the types of habitat along nearly a mile of Ahtanum Creek in Union Gap. The design will include placement of logjams, creation of a side channel and inlet structure, and a replanting

Grant Awarded: \$578,793

\$414,000



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Total: \$643,103



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plan. When implemented, these actions will increase habitat complexity and slow flow in Ahtanum Creek, increase the length of the creek channel, and reconnect the creek to its floodplain. The creek is used by steelhead trout, 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. (19-1446)

Confederated Tribes and Bands of the Yakama Nation Grant Awarded: \$90,000 Planning the Restoration of Habitat in and Along the Tieton River

The Yakama Nation will use this grant to design a project to restore habitat in and around a half-mile of the Tieton River as it passes through the Oak Creek Wildlife Area. The project will include reconnecting side channels and floodplain habitat, increasing gravel for spawning, placing logs in the river, and planting native trees and shrubs along its bank. Adding logs to a river creates places for fish to rest, feed, and hide from predators. It also slows the river, which reduces erosion and allows small rocks to settle to the riverbed, creating areas for salmon to spawn. Finally, logs change the flow of the river, creating riffles and pools, which give salmon more varied habitat. Planting trees and bushes along a shoreline shades 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 river is used by steelhead trout, 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. (19-1447)

Confederated Tribes and Bands of the Yakama Nation Grant Awarded: \$204,000 Restoring Klickitat River Fish Passage

The Yakama Nation will use this grant to replace an undersized culvert, which is a pipe or other structure that carries water under a road, with a larger structure to open access for migrating fish in Piscoe Creek, a tributary to the Klickitat River. Correction of this barrier will reconnect 5.5 miles of upstream habitat. The river is used by steelhead trout, which is a species listed as threatened with extinction under the federal Endangered Species Act. The Yakama Nation will contribute \$36,000 in a federal grant. Visit RCO's online Project Snapshot for more information and photographs of this project. (19-1550)