

Salmon Recovery

2011 GRANTS AWARDED



PROJECTS IN ASOTIN COUNTY

\$132,160

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE RESTORING THE SOUTH FORK OF ASOTIN CREEK

GRANT AWARDED: \$132,160

The Department of Fish and Wildlife will use this grant to place more than 200 logs and trees with root wads in the lower south fork of Asotin Creek in the department's Asotin Wildlife Management Area. The creek is a single-thread channel that moves streambed gravels and water downstream quickly. The logs will slow the river, creating pools and more types of habitat in the creek. They also will encourage sediment to settle and create gravel bars. Finally, they will increase the length of the channel because the river will begin to re-establish meanders. In addition to placing large trees in the channel, the department also will drive wood posts into the stream bottom to act as temporary anchors for racking materials and collecting woody materials floating in the creek. The posts and the logs will narrow the channel width by half to three-quarters of its current width at the location they are placed, and gravels that deposit downstream of the structures will force the channel to migrate thereby increasing floodplain connectivity and channel length. The creek is home to steelhead, which are listed as threatened with extinction on the federal Endangered Species Act. The department will contribute \$23,322 in donations of equipment, labor and materials. See [more information](#) about this project. (11-1573)

For more projects in Asotin County, look under the "Multiple Counties" headline at the end of this document.

PROJECTS IN CHELAN COUNTY

\$1,296,713

CASCADE COLUMBIA FISHERIES ENHANCEMENT GROUP INSTALLING LARGE LOGS VERTICALLY IN THE WHITE RIVER TO DIVERSIFY HABITAT

GRANT AWARDED: \$194,100

The Cascade Columbia Fisheries Enhancement Group and the U.S. Fish and Wildlife Service will use this grant to accelerate floodplain recovery and enhance salmon habitat in the lower White River by using log piles to stabilize existing accumulations of woody materials. This project is intended to address habitat impacts caused by extensive 20th century logging in the riparian zone and log drives that removed most of the large, logjams in the river. This project will improve habitat for all salmon species that use the lower White River, including: spring Chinook, steelhead, sockeye and bull trout throughout the 3.75-mile treatment reach. The enhancement group has received matching contributions including \$100,000 from local public utility districts, and \$58,292 from the U.S. Fish and Wildlife Service. See [more information](#) about this project. (11-1460)

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CASCADE COLUMBIA FISHERIES ENHANCEMENT GROUP

GRANT AWARDED: \$6,953

PLANNING FOR ADDING NUTRIENTS TO THE WENATCHEE RIVER

The Cascade Columbia Fisheries Enhancement Group and Trout Unlimited's Washington Water Project will use this grant to determine the need for adding nutrients to tributaries of the upper Wenatchee River. Pacific salmon and steelhead once contributed large amounts of carbon, nitrogen and phosphorus to freshwater ecosystems in the Pacific Northwest when they died and their carcasses decomposed in the rivers. These nutrients are no longer available in the historic quantities because fewer adult fish are returning to spawn (and die). The enhancement group will evaluate baseline conditions, develop a treatment and monitoring plan, and get approval from the Department of Ecology for a pilot nutrient enhancement program in the upper Wenatchee River watershed. The enhancement group will contribute \$80,000 from the local public utility district and \$40,000 from the Yakama Nation. See [more information](#) about this project. (11-1469)

CHELAN-DOUGLAS LAND TRUST

GRANT AWARDED: \$280,000

PROTECTING ENTIAT RIVER'S STORMY REACH

The Chelan-Douglas Land Trust will use this grant to buy 53 acres from a willing landowner along the Entiat River, a tributary of the Columbia River. The area is critical habitat for spring Chinook salmon, steelhead and bull trout. The property includes the alluvial fan of Tye Creek, which splits as it flows to the river, and feeds a network of off-channel habitat. The property includes more than a half-mile of riverbank. According to the Bureau of Reclamation, 78 percent of the site is within the floodplain, all of the river's channel migration zone lies entirely within this property and the property has natural accumulations of large logs and tree root wads, which create habitat for fish. The Chelan-Douglas Land Trust will contribute \$56,000 from a local grant. See [more information](#) about this project. (11-1415)

CHELAN-DOUGLAS LAND TRUST

GRANT AWARDED: \$250,000

PROTECTING NASON CREEK

The Chelan-Douglas Land Trust will use this grant to buy up to 18 acres in the lower White Pine reach of Nason Creek, which flows into the Wenatchee River, a tributary of the Columbia River. The purchase will protect both sides of the riverbank for nearly a quarter-mile, as well as permanently protect several acres of floodplain and a year-round watered alcove that was formerly the main channel of Nason Creek. Nason Creek is a major spawning area for endangered spring Chinook and steelhead and a core area for bull trout, which are listed as threatened with extinction under the federal Endangered Species Act. The Chelan-Douglas Land Trust will contribute \$44,700 from a local grant. See [more information](#) about this project. (11-1372)

CHELAN COUNTY

GRANT AWARDED: \$162,290

RECONNECTING THE NASON CREEK BASIN

The Chelan County Natural Resources Department will use this grant to install an 89-foot-long bridge under the Burlington Northern Santa Fe railroad to allow water to flow from the Coulter,

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Roaring, Gill and Knutson Creek basins to Nason Creek. Opening up the river flow will reconnect nearly 15 percent of the upper Nason Creek basin. It also will allow Chinook salmon and steelhead access to habitat for spawning, rearing and hiding from predators. In total, this project will connect 148 acres of isolated wetlands and floodplains. Construction of the Great Northern Railway in the 1890s disconnected two large channel meanders and floodplain areas. The project area encompasses the entire lower White Pine River reach of Nason Creek. This is a 2.1-mile-long segment of Nason Creek. Chelan County will contribute \$2 million from a federal and a local grant. See [more information](#) about this project. (11-1336)

CHELAN COUNTY

GRANT AWARDED: \$332,713

REMOVING BARRIERS TO FISH MIGRATION IN THE UPPER CHUMSTICK CREEK

The Chelan County Natural Resources Department will use this grant to remove four culverts that are barriers to juvenile fish migration in the upper Chumstick Creek. Removing the barriers will allow steelhead and salmon to migrate to and from historical spawning and rearing habitat along the upper portion of Chumstick Creek. This will complete a 15-year effort to remove more than 30 barriers within the first 10 miles of the creek. Chelan County will contribute \$58,714 from a grant. See [more information](#) about this project. (11-1441)

CHELAN COUNTY

GRANT AWARDED: \$70,657

REPLACING A COULTER CREEK BARRIER

The Chelan County Natural Resources Department will use this grant to replace two culverts that are blocking fish migration in Coulter Creek to the lower White Pine reach of Nason Creek. The culverts will be replaced with an arch structure, improving access for Chinook salmon and steelhead to 1.6 miles of potential spawning habitat. The project will complement a second project to reconnect the larger Nason Creek with Coulter Creek by installing a bridge under the Burlington Northern Santa Fe Railroad. Chelan County will contribute \$12,469 from a local grant. See [more information](#) about this project. (11-1347)

PROJECTS IN CLALLAM COUNTY

\$2,447,641

CLALLAM CONSERVATION DISTRICT

GRANT AWARDED: \$142,000

RECONNECTING MEADOWBROOK CREEK AND THE DUNGENESS RIVER

The Clallam Conservation District will use this grant to improve salmon access to habitat by improving the connection between Meadowbrook Creek and the Dungeness River. Meadowbrook Creek is the last freshwater tributary to out-migrating salmon species in the Dungeness River before they enter Dungeness Bay in the Sequim area. Meadowbrook Creek flowed into the Dungeness River near the river mouth until 1999, when the creek breached the beach dune and began flowing directly into Dungeness Bay, thus disconnecting the historic freshwater estuary area. A very narrow (less than three feet) channel recently cut through one of several beach berms, allowing the creek to flow into the Dungeness River. The conservation

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district will expand the opening in the berm and stabilize the beach with logs and dune grass to reduce the risk of continued dune breaching. In addition, the conservation district will remove bank armoring and a small levee, and improve access to existing off-channel rearing habitat upstream. This work is part of the continuing effort to restore the floodplain and estuarine habitat of the lower Dungeness River and increase rearing and transitional habitat for salmon species, including Chinook, coho, chum and steelhead. The conservation district will contribute \$40,000 donated by the Dungeness Farms, which also supported a previous conservation easement in the area. See [more information](#) about this project. (11-1343)

COASTAL WATERSHED INSTITUTE

GRANT AWARDED: \$26,444

PLANNING FOR TWINS RIVER PROTECTION

The Coastal Watershed Institute will use this grant to develop a detailed parcel inventory and plan for the protection of the west Twin Rivers shoreline and adjacent riparian areas. The West Twin River is on the northwestern side of the Strait of Juan de Fuca, about an hour west of Port Angeles via Highway 112. The project site includes more than 3 miles, include 25 acres of shoreline and up to 76 acres of riparian area. The institute will inventory and survey the land and negotiate a final land transfer for the West Twin River shoreline. The institute also will hold work sessions with interested people to develop a plan for needed shoreline restoration. Completing the parcel inventory and shoreline plan is the strategic next step for timing and completion of future restoration actions. The institute will contribute \$13,000 in staff labor and partner with the North Olympic Land Trust and others to advance this project. See [more information](#) about this project. (11-1341)

JAMESTOWN S'KLALLAM TRIBE

GRANT AWARDED: \$519,937

OPENING FISH MIGRATION IN WASHINGTON HARBOR

The Jamestown S'Klallam Tribe will use this grant to remove two, 6-foot culverts and 600 feet of road, opening 37 acres of crucial pocket estuary habitat east of Sequim in Washington Harbor to summer chum and Chinook salmon, both of which are listed as threatened with extinction under the federal Endangered Species Act. Washington Harbor, a 118-acre estuary in Sequim, has estuarine marsh, eelgrass meadows and tide flats. It is along the migratory path of salmon from nearby Jimmycomelately, Salmon and Snow Creeks. Extensive restoration work has been completed in these creeks, and now it is time to restore historic pocket estuary habitat in the harbor to provide places for salmon to find food during their migration to the sea. A quarter-mile road, equipped with just two culverts, crosses the harbor and disrupts salmon access, tidal flows and habitat forming processes in the estuary's northern 37 acres. This area historically provided the finest tidal marsh and eelgrass habitat in the estuary. The impact of the roadway appears to have destroyed the eelgrass beds and evidence indicates that the estuary marsh has been deprived of sediment and is eroding. The tribe will contribute more than \$1 million from a state grant. See [more information](#) about this project. (11-1333)

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LOWER ELWHA KLALLAM TRIBE

GRANT AWARDED: \$635,919

PLACING LOGJAMS IN THE ELWHA RIVER

The Lower Elwha Klallam Tribe will use this grant to build 11 logjams in the Elwha River to increase habitat for salmon. About 100 years ago, two dams were built in the Elwha River, which eliminated 90 percent of the accessible habitat for salmon and truncated the transport of sediment and wood necessary for habitat restoration processes. Additionally, the lower river has been damaged by channelization, floodplain logging, wood clearing and other human activities. Removal of two hydroelectric dams by the National Park Service has begun, and this project will extend the tribe's comprehensive efforts to restore the floodplain of the lower Elwha River and maximize the benefits of dam removal. The logjams will slow the river, creating different types of habitat for salmon and help lateral connectivity between the river and its floodplain. The tribe will contribute \$112,388 from a federal grant and donations of labor and materials. See [more information](#) about this project. (11-1332)

LOWER ELWHA KLALLAM TRIBE

GRANT AWARDED: \$361,901

REPLANTING THE ELWHA RIVER BANKS AND FLOODPLAIN

The Lower Elwha Klallam Tribe will use this grant to hire crews to remove non-native, invasive weeds through 2016, move large logs and tree root wads from the shoreline to denuded sites and double planting efforts following removal of two Elwha River dams. Removal of the dams will expose nearly 800 acres of land devoid of vegetation. Native plant communities, particularly forest communities, are critical to a healthy functioning watershed. Large portions of the former reservoirs will revert to forests. Future floodplains, characterized by islands, overflow channels and ground water fed channels will occupy one-third of the newly exposed landscape. The project is unprecedented and additional funding will boost replanting efforts. This grant will fund crews to control exotic weeds, plant more than 14,000 plants on the dewatered Aldwell reservoir surface and mobilize large logs for erosion control and safe planting sites at both reservoirs. Crews also will provide logistical support for overall replanting efforts including building trail access and staging areas to the planting sites as well as transporting plant materials. The re-vegetation plan developed by specialists working for Olympic National Park and the Elwha Klallam Tribe. The tribe will contribute \$102,500 in staff labor. See [more information](#) about this project. (11-1257)

NORTH OLYMPIC SALMON COALITION

GRANT AWARDED: \$415,640

RECONNECTING THE SALT CREEK ESTUARY

The North Olympic Salmon Coalition will use this grant to breach a dike and construct vehicle crossings over Salt Creek, restoring an estuary and opening up 15 acres of salt marsh to salmon. Salt Creek is on the Strait of Juan de Fuca west of Port Angeles. Fifteen acres of the 48-acre estuary and salt marsh are isolated from Salt Creek and the rest of the estuary by a 1920s earthen dike road, Crescent Bay Lane. Two wooden culverts were installed when the dike was built. These undersized culverts mostly are collapsed and block most of the fish from passing through, sometimes stranding fish in the west estuary. The dike road is on private land and provides the sole access to nine homes and private forests. By breaching the dike, the coalition

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will restore tidal flows and open up the salt marsh. The project will increase habitat by one-third for juvenile Chinook salmon, bull trout and coho. The coalition will contribute \$73,348 from a federal grant via the Lower Elwha Klallam Tribe that is being used to fund project design. See [more information](#) about this project. (11-1289)

PACIFIC COAST SALMON COALITION

GRANT AWARDED: \$86,500

REPLACING A CULVERT ON THE NORTH FORK OF THE CALAWAH RIVER

The Pacific Coast Salmon Coalition will use this grant to replace an undersized, deteriorating culvert on Forest Service Road 2922 with a properly sized culvert. The culvert is on an unnamed tributary to the north fork of the Calawah River. This section of the north fork provides places for salmon to rest and hide from predators and is mostly in a national forest. The culvert is filled with sediment and culvert failure will deliver thousands of cubic yards of fine and coarse sediment to the north fork, smothering fish habitat there. The new, larger culvert will decrease significantly the likelihood that sediment and wood debris, generated during storms, will plug the inlet causing water to pond behind it and eventually causing the road fill to slough into the north fork. This segment of the north fork is used by winter steelhead, fall coho and cutthroat trout. The coalition will contribute \$111,693. See [more information](#) about this project. (11-1498)

PACIFIC COAST SALMON COALITION

GRANT AWARDED: \$169,300

REPLACING THE COAL CREEK CULVERT

The Pacific Coast Salmon Coalition will use this grant to remove an undersized, deteriorating culvert and replace it with a 60-foot-long bridge to allow fish passage. The culvert is on Coal Creek, which is a tributary to the Dickey River. The Dickey River and its tributaries provide abundant habitat for spawning and rearing coho salmon, steelhead and cutthroat trout. Also, the Dickey drainage is known as one of the top coho smolt producers in Washington. The culvert, which is under a well used logging road, is too small and has an outfall drop that plunges directly onto large rip rap placed to protect the road. The undersized culvert also causes a whirlpool that is destabilizing the creek. The coalition will contribute \$91,200. See [more information](#) about this project. (11-1462)

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

GRANT AWARDED: \$90,000

OPERATING THE ELWHA RIVER SALMON AND STEELHEAD WEIR

The Department of Fish and Wildlife will use this grant to support further operation of a salmon weir during removal of the Elwha River dams. The goal is to capture fish for stock preservation and to evaluate abundance and diversity of adult salmon and steelhead in the Elwha River. Elwha River Chinook salmon, steelhead and bull trout are listed as threatened with extinction under the federal Endangered Species Act, and sockeye, pink and chum salmon in the Elwha are at critically low levels. The weir captures all salmon species and provides scientific information needed to manage the recovery of Elwha River fish. Chinook and pink salmon brood stock will be collected for genetic conservation and for future rebuilding of depleted salmonid stocks. Hatchery versus wild return rates of Elwha River Chinook salmon and steelhead will be assessed

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and used to manage population recovery. The department will contribute \$16,000 from a federal grant. See [more information](#) about this project. (11-1335)

PROJECTS IN CLARK COUNTY

\$925,383

CLARK COUNTY

GRANT AWARDED: \$212,753

IMPROVING SIDE CHANNEL HABITAT IN THE EAST FORK OF THE LEWIS RIVER

Clark County will use this grant to grade the outlets of two side channels, install logs and tree root wads, remove invasive plants and replant the banks of the east fork of the Lewis River. The project will expand side channel habitat by 3,500 square feet. The restored habitat will provide excellent rearing habitat for juvenile salmon and steelhead. The east fork supports Chinook, chum, coho and steelhead, all of which are listed as threatened with extinction under the federal Endangered Species Act. Clark County will contribute \$61,891. See [more information](#) about this project. (11-1313)

COWLITZ INDIAN TRIBE

GRANT AWARDED: \$401,730

IMPROVING SIDE CHANNEL HABITAT IN THE LEWIS RIVER

The Cowlitz Indian Tribe will use this grant to place logs and logjams in two side channels of the north fork of the Lewis River to improve salmon habitat in the side channel. The reach is a critical rearing area for Chinook, coho, chum and steelhead, all of which are listed as threatened with extinction under the federal Endangered Species Act. The logs and root wads provide places for salmon to rest and hide from predators. The tribe also will remove invasive plants along the river banks and replant the area with native trees and shrubs to improve habitat for wildlife. The tribe will contribute \$91,400 from a local grant and donations of labor and materials. See [more information](#) about this project. (11-1315)

FISH FIRST

GRANT AWARDED: \$143,900

ENHANCING SIDE CHANNEL HABITAT AT DAYBREAK PARK

Fish First will use this grant to enhance two side channels on the east fork of the Lewis River, install wood structures in the river and replant stream banks with native trees and shrubs at Daybreak Park. The enhanced habitat will improve spawning and rearing opportunities for salmon and steelhead. The east fork is home to Chinook, chum, coho and steelhead, all of which are listed as threatened with extinction under the federal Endangered Species Act. Fish First will contribute \$26,100 in cash, labor, and materials. See [more information](#) about this project. (11-1266)

LOWER COLUMBIA FISH ENHANCEMENT GROUP

GRANT AWARDED: \$167,000

DESIGNING THE EAGLE ISLAND-NORTH CHANNEL RESTORATION PROJECT

The Lower Columbia Fish Enhancement Group will use this grant to design a project to restore optimum water flows in the north channel of Eagle Island in the lower north fork of the Lewis

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River near Woodland. Three large hydro-electric dams in the upper watershed and dikes built in the lower watershed have impaired habitat forming processes in this watershed and limited existing habitat to about 8 miles of river. Restoration of water flows is necessary to improve 2.2 miles of high value spawning and rearing habitat that supports one of the two healthy, naturally reproducing Chinook populations in the entire Columbia River watershed. Project partners and landowners include Washington Department of Fish and Wildlife, PacifiCorp and the Washington Department of Natural Resources. See [more information](#) about this project. (11-1239)

PROJECTS IN COLUMBIA COUNTY

\$265,720

POMEROY CONSERVATION DISTRICT

GRANT AWARDED: \$14,600

ASSESSING FISH PASSAGE BARRIERS IN THE PATAHA CREEK WATERSHED

The Pomeroy Conservation District will use this grant to assess the lower 50 miles of the Pataha Creek watershed focusing on identifying barriers to fish passage. Pataha Creek is a tributary of the Tucannon River in southeast Washington. It is home to steelhead, which are listed as threatened with extinction on the federal Endangered Species Act. Potential barriers will be identified from aerial images, followed by a site assessment of priority concerns. The finished products of this assessment will be a video of the 50-mile reach; an inventory report and restoration plan, a prioritized list and map of barriers and a conceptual plan for correcting at least one priority project. The conservation district will contribute \$3,000 in donations of labor. See [more information](#) about this project. (11-1574)

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

GRANT AWARDED: \$251,120

EXPANDING THE TUCANNON RIVER RESTORATION

The Department of Fish and Wildlife will use this grant to expand a project to increase the types of habitat, floodplain connection and off channel habitat in the Tucannon River at the department's Wooten Wildlife Area in Columbia County on U.S. Forest Service land. The department plans to place logs and root wads in the river to slow the river and create pools and different types of habitat for salmon, including places they can rest and hide from predators. When searching for the wood, the department was able to buy more than 200 whole trees from adjacent lands and plans to move them with a helicopter to reduce impacts to the landscape and river. The original project is being expanded from treating a half-mile of the river to 2 miles of the river. The department will contribute \$58,000 in donations of cash, labor and materials. See [more information](#) about this project. (11-1586)

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PROJECTS IN COWLITZ COUNTY

\$1,080,806

COWLITZ CONSERVATION DISTRICT

GRANT AWARDED: \$177,401

RESTORING ANDREWS TREE FARM WATERWAYS

The Cowlitz Conservation District will use this grant to restore portions of the Coweeman River and a tributary, Turner Creek, on the Andrews Tree Farm. The district will install logs and whole trees in the streams to enhance habitat for salmon. The woody materials slow the river, encourage gravel accumulation and create places for salmon to rest and hide from predators. The conservation district also will plant trees along stream banks to shade and cool the water. This reach of the Coweeman River and Turner Creek are home to fall Chinook, coho and winter steelhead, all of which are listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$40,000 from a state grant and donations of equipment, labor and materials. See [more information](#) about this project. (11-1306)

COWLITZ CONSERVATION DISTRICT

GRANT AWARDED: \$89,100

RESTORING NESBIT TREE FARM STREAM

The Cowlitz Conservation District will use this grant to restore a portion of the Coweeman River on the Nesbit Tree Farm. The conservation district will place logs and whole trees in the river to trap sediment on exposed bedrock to improve salmon habitat and cool the water. The woody materials also will slow the river and create places for salmon to rest and hide from predators. This reach of the river is home to fall Chinook, coho and winter steelhead, all of which are listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$20,000 from a state grant and donations of equipment, labor and materials. See [more information](#) about this project. (11-1379)

COWLITZ CONSERVATION DISTRICT

GRANT AWARDED: \$124,000

RESTORING THE COWEEMAN RIVER

The Cowlitz Conservation District will use this grant to place logs and whole trees in the Coweeman River on the Baxter and Andrews tree farms to improve habitat for salmon. The logs and trees will slow the river, encourage gravel to accumulate and create places for salmon to rest and hide from predators. The Coweeman River is home to Chinook, coho and winter steelhead, all of which are listed as threatened with extinction under the federal Endangered Species Act. The conservation district will contribute \$24,500 from a state grant and donations of equipment, labor and materials. See [more information](#) about this project. (11-1378)

COWLITZ COUNTY

GRANT AWARDED: \$204,000

REMOVING AN ABERNATHY CREEK BRIDGE

Cowlitz County will use this grant to remove a bridge and all related floodplain fill on an abandoned portion of Abernathy Creek Road. The bridge constrains the channel and limits the creek's ability to meander and connect with its floodplain. The County will install logs and tree root wads in the creek and replant its banks after the bridge is removed. The work will benefit

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coho salmon, which are listed as threatened with extinction under the federal Endangered Species Act, winter steelhead and sea-run coastal cutthroat trout. Cowlitz County will contribute \$36,000. See [more information](#) about this project. (11-1329)

COWLITZ INDIAN TRIBE

GRANT AWARDED: \$486,305

RESHAPING ABERNATHY CREEK

The Cowlitz Indian Tribe will use this grant to remove an abandoned roadbed that inhibits full connectivity between Abernathy Creek and its floodplain, and place logjams in the creek to increase habitat. The tribe will excavate channel meanders through the former roadbed and place logjams in the main channel, allowing the river to meander, forming pools and riffles important to salmon and steelhead. This reach of Abernathy Creek is home coho, which are listed as threatened with extinction under the federal Endangered Species Act, and winter steelhead. The tribe will contribute \$85,819 in donations of cash, donations of labor, donations of materials, grant. See [more information](#) about this project. (11-1386)

PROJECTS IN GRAYS HARBOR COUNTY

\$787,869

CHEHALIS BASIN FISHERIES TASK FORCE

GRANT AWARDED: \$79,000

CORRECTING THE CEDAR CREEK ROAD FISH PASSAGE BARRIER

The Chehalis Basin Fisheries Task Force will use this grant to correct a culvert on a Cedar Creek tributary that is blocking fish passage. Crews will replace a 4-foot-wide culvert under Cedar Creek Road that has a 3-foot outfall drop with 16-foot-wide bottomless arch culvert. The stream is an unnamed tributary of Cedar Creek, which is a tributary to the upper Chehalis River. This project will open 2 miles of spawning and rearing habitat for coho and cutthroat trout, as well as juvenile rearing habitat for Chinook and steelhead. This culvert is ranked 12 in priority to replace, out of more than 2,000 documented barriers in the Chehalis basin. The task force will contribute \$61,000 in cash and a federal grant. See [more information](#) about this project. (11-1250)

CHEHALIS BASIN FISHERIES TASK FORCE

GRANT AWARDED: \$66,528

RESTORING McDONALD CREEK

The Chehalis Basin Fisheries Task Force will use this grant to remove a shotgun culvert on a private farm access road and replace it with a 40-foot steel bridge. The culvert is a barrier to coho and cutthroat trout, which historically have used McDonald Creek for spawning and rearing. During high flows, the creek rushes through too fast for fish to travel through the culvert, and at the outfall of the culvert, there is a deep plunge pool. This culvert ranks among the top 20 percent of barrier culverts basin-wide needing repair or replacement. McDonald Creek, a tributary of the Chehalis River, is a very important refuge for fish during winter flooding and a spawning location in the spring and fall. The task force will contribute \$12,000 in donations of labor and materials. See [more information](#) about this project. (11-1285)

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GRAYS HARBOR CONSERVATION DISTRICT IMPROVING STEVEN'S CREEK FISH PASSAGE

GRANT AWARDED: \$65,650

The Grays Harbor Conservation District will use this grant to remove the last barrier in the west fork of Steven's Creek watershed, allowing unrestricted access to more than 4 miles of habitat and more than 165 acres of wetlands. The west fork of Stevens Creek joins Steven's Creek, one of three primary tributaries to the Humptulips River, in Grays Harbor County. The fish passage barrier consists of two culverts that are beginning to rust out, are completely impassable and have a large drop from the outfall. The site ranks in the top 7 percent of all sites in the Chehalis basin for potential habitat use. Healthy coho stocks will benefit from the removal of the culverts. The culverts will be replaced with a 50-foot-long bridge. The conservation district will contribute \$35,350 in donations of cash. See [more information](#) about this project. (11-1299)

GRAYS HARBOR CONSERVATION DISTRICT RESTORING GRISDALE FISH PASSAGE

GRANT AWARDED: \$116,008

The Grays Harbor Conservation District will use this grant to remove two culverts that are blocking fish passage to 6.6 miles of habitat and begin restoration work in two creeks. The two barriers lie along Save Creek, a tributary to the Wynoochee River, and Pigpen Creek, a tributary of Schaefer Creek, a major tributary to the Wynoochee River. The creeks are home to fall Chinook, coho, chum, cutthroat and winter and summer steelhead. Logs and tree root wads will be placed in the creeks to slow the water and create pools and other types of habitat for fish, as well as reduce erosion and allow sediment to build up on the creek bottom. The removal of the barriers will increase available spawning and rearing habitat. The conservation district will contribute \$62,466 from a federal grant and donations of cash. See [more information](#) about this project. (11-1261)

QUINAUTL INDIAN NATION OPENING FISH PASSAGE ON THE LOWER QUINAUTL RIVER

GRANT AWARDED: \$38,600

The Quinault Indian Nation will use this grant to create a channel through an abandoned road foundation that is blocking fish passage to upstream wetland habitat in the floodplains of the lower Quinault River in Grays Harbor County. The project is on the Quinault Indian Reservation Road, which was built through a historical side channel of the lower Quinault River. Water currently flows over the road. The wetland habitat on the upstream side of the road is critical juvenile coho rearing habitat. By re-establishing fish passage, the wetland will become available for rearing habitat. The tribe will contribute \$6,820 in donations of labor. See [more information](#) about this project. (11-1394)

QUINAUTL INDIAN NATION OPENING LUNCH CREEK FISH PASSAGE

GRANT AWARDED: \$6,991

The Quinault Indian Nation will use this grant to remove one collapsing bridge and a culvert in Lunch Creek, opening a channel along the 9200 Road and more than 1.5 miles of habitat. The tribe also will remove one culvert on a tributary to Lunch Creek. A bridge has collapsed into the Lunch Creek stream channel. About 80 percent of the flow is being diverted towards the left

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bank and into a 36-inch plastic relief culvert. The bridge is a complete barrier to fish and the relief culvert does not contain a channel for fish passage. Lunch Creek is a major tributary that forms the Raft River, which flows into the Pacific Ocean. Coho salmon, steelhead trout, cutthroat trout and native char use Lunch Creek. The tribe will contribute \$3,300 from a federal grant. See [more information](#) about this project. (11-1396)

QUINAUTL INDIAN NATION

GRANT AWARDED: \$13,710

RECONNECTING A ROAD IMPOUNDED POND

The Quinault Indian Nation will use this grant to decommission a road and restore fish passage to a pond, connecting it to the Quinault River in Grays Harbor County. The roadbed and culvert were installed through a wetland in the floodplain of the Quinault River. The undersized, plugged culvert contains a beaver dam and the roadbed is blocking fish passage. Upstream of the culvert is a 2.2-acre wetland with juvenile coho rearing habitat. Downstream is a 7-acre wetland that forms a channel and flows into the lower Quinault River. By reestablishing fish passage, coho salmon could use the wetland for rearing habitat. The tribe will contribute \$2,420 in donations of labor. See [more information](#) about this project. (11-1395)

QUINAUTL INDIAN NATION

GRANT AWARDED: \$197,030

REPLACING A FISH BLOCKING CULVERT ON THE SOUTH FORK OF THE SALMON RIVER

The Quinault Indian Nation will use this grant to replace a culvert that's blocking fish passage in the south fork of the Salmon River on the Quinault Indian Nation Reservation in Grays Harbor County. A 14-foot culvert is restricting fish passage to nearly 6 miles of habitat on the south fork and other tributaries. The culvert will be replaced with a 70-foot-long bridge. The Salmon River is a moderate-sized tributary that flows into the Queets River and supports runs of coho salmon, steelhead trout and cutthroat trout. The culvert is too small, has a steep slope and is passable by only 33 percent of fish. Removing this barrier and replacing it with a properly designed bridge will allow for fish passage of all life stages. The tribe will contribute \$34,770 in staff labor and donations of materials. See [more information](#) about this project. (11-1393)

WILD FISH CONSERVANCY

GRANT AWARDED: \$204,352

ASSESSING FISH USE OF THE GRAYS HARBOR ESTUARY

The Wild Fish Conservancy will use this grant to assess near-shore habitat use patterns of juvenile salmonids in the Grays Harbor estuary. Conservancy staff will sample at least 30 sites throughout Grays Harbor and will target locations where habitat restoration and protection projects could be sited. In addition to fish usage data, staff will take coded wire tag readings, and will collect relevant physical habitat parameters and water quality data to determine how these variables might be driving habitat use in the estuary. An outcome of this project will be a report that includes suggested habitat restoration and protection actions based on the data collected in the project. The Wild Fish Conservancy will contribute \$33,100 in donations of equipment and labor. See [more information](#) about this project. (11-1298)

Salmon Recovery 2011 GRANTS AWARDED



PROJECTS IN ISLAND COUNTY

\$1,010,949

NORTHWEST STRAITS MARINE CONSERVATION FOUNDATION REMOVING ABANDONED FISHING NETS

GRANT AWARDED: \$52,959

The Northwest Straits Marine Conservation Foundation will use this grant to remove about 32 derelict fishing nets from Lawson Reef, along the west and east sides of Whidbey Island, and at Possession Bar. Most of these nets were lost or snagged on rocks years ago, yet continue to kill salmon and other fish, birds, marine mammals and other organisms. Removal of the nets will occur in known salmon migratory pathways, and restore ecological function to 3 acres of marine habitat. The foundation already has removed more than 300 derelict fishing nets from Island County waters. These funds will complete the removal all known derelict nets from shallow, sub-tidal waters of Island County down to a depth of 105 feet. More information about the impact of these nets and ongoing efforts towards their removal in Puget Sound can be found at www.derelictgear.org. The foundation will contribute \$10,500 from a federal grant. See [more information](#) about this project. (11-1296)

SKAGIT FISHERIES ENHANCEMENT GROUP ASSESSING SWAN LAKE RESTORATION

GRANT AWARDED: \$163,654

The Skagit Fisheries Enhancement Group, in partnership with the Swan Lake Watershed Preservation Group and Island County, will use this grant to complete an engineering feasibility assessment to determine the best approaches for improving the habitat quality and ecological function of Swan Lake. The site is on the west side of north Whidbey Island, west of Oak Harbor and south of Ault Field. This site is a coastal marsh with limited tidal connection and currently is not accessible to salmon. The assessment will examine a range of potential restoration alternatives while accounting for site constraints and hydrology. The study will analyze a number of technical aspects of the site including detailed topographic and bathymetric mapping, wave and littoral drift assessment, wetland functional assessment, inlet analysis, reference site analysis and infrastructure analysis. The enhancement group will contribute \$29,000 from Island County and a Conservation Futures¹ Fund grant. See [more information](#) about this project. (11-1297)

WHIDBEY CAMANO LAND TRUST RESTORING THE DUGUALLA HEIGHTS LAGOON

GRANT AWARDED: \$794,336

The Whidbey Camano Land Trust, in partnership with the Whidbey Island Conservation District, will use this grant to restore juvenile salmon rearing habitat at a 25-acre, former pocket estuary adjacent to Dugualla Bay. The site is east of Highway 20 on Whidbey Island, north of Oak Harbor in the Dugualla Heights neighborhood. Historically, the site was a complex near-shore ecosystem that included a salt marsh, backshore lagoon and barrier beach with a shifting tidal opening. It was dredged in the 1960s to create an artificial lagoon and homes were built around

¹ Conservation 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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it. The land trust will: (1) reopen a historic tidal connection to Dugualla Bay by removing a 30-inch drainpipe and installing an open channel; (2) re-grade the former marsh and lagoon to create low marsh and intertidal habitat; (3) improve shoreline habitat by converting a pasture to native shrub-scrub and high marsh habitats; and (4) restore 220 feet of a natural, freshwater stream channel. The land trust has worked closely with the adjacent community and the design protects the surrounding homes. Dugualla Bay is used heavily by juvenile Puget Sound Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, as well as coho salmon, bull trout, chum, cutthroat and pink salmon. These juvenile salmon rely on the shallow shoreline habitats this project will restore for feeding, hiding from predators and transitioning to saltwater and freshwater. The land trust will contribute \$140,177 from a federal grant and another grant. See [more information](#) about this project. (11-1290)

PROJECTS IN JEFFERSON COUNTY

\$1,803,600

HOOD CANAL SALMON ENHANCEMENT GROUP

GRANT AWARDED: \$320,000

PROTECTING LAND IN THE BIG QUILCENE RIVER DELTA

The Hood Canal Salmon Enhancement Group will use this grant to buy 30 acres along the lower Big Quilcene River in the town of Quilcene. The land represents the last unprotected land of the lower river, and is critical to completing the remaining stages of a multi-phased restoration effort in Quilcene Bay. The grant also will pay for the removal of structures and wetland landfill material. The acquisition will provide protection from further development in the lower segment of the river and will protect estuarine tidelands, salt marsh and riverbanks. Conservation of this area will benefit Chinook, coho, chum, pink salmon, coastal cutthroat, steelhead and bull trout. The land also is home to bald eagle, harbor seal and waterfowl. The enhancement group will contribute \$1,073,287 from two grants. See [more information](#) about this project. (11-1349)

HOOD CANAL SALMON ENHANCEMENT GROUP

GRANT AWARDED: \$175,000

RESTORING BIG QUILCENE RIVER HABITAT

The Hood Canal Salmon Enhancement Group will use this grant to restore the spawning habitat in a section of the Big Quilcene River. The enhancement group will install logjams to help distribute the river's flow more evenly and to capture gravels appropriately sized for spawning. In the latter part of the 20th century, landowners graded the river channel to prevent flooding of their property. The manipulation of the river channel has resulted in about a half-mile of the river being severely incised and devoid of spawning gravel. The restoration of this section of the river is critical to summer chum, which are listed as threatened with extinction under the federal Endangered Species Act. This is the third phase of a restoration project. In 2009, the enhancement group installed three logjams in the south side channel. In 2010, the group added logs and tree root wads to the north and south channels, removed several hundred feet of dikes from the floodplain and constructed erosion barriers for downstream properties. The habitat improvements made to the river to date have performed well but the north channel of the river

Salmon Recovery

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still is incised deeply. The enhancement group will contribute \$148,596 from a private grant. See [more information](#) about this project. (11-1350)

JEFFERSON COUNTY CONSERVATION DISTRICT

GRANT AWARDED: \$159,540

DESIGNING PROJECTS FOR THE HOH RIVER

The Jefferson County Conservation District, in partnership with Wild Fish Conservancy, will use this grant to identify the extent and nature of problems and habitat deficiencies in the floodplains of the middle Hoh River. The district will do a feasibility study with a habitat inventory that will inform conceptual designs at five potential projects sites. The study's goal is to recommend projects that will re-establish natural processes that are essential in forming, connecting and sustaining a diversity of floodplain habitats. The conservation district will contribute \$28,155 in donations of labor and materials. See [more information](#) about this project. (11-1466)

NORTH OLYMPIC SALMON COALITION

GRANT AWARDED: \$483,592

RESTORING MAYNARD BEACH IN DISCOVERY BAY

The North Olympic Salmon Coalition will use this grant to restore more than a quarter-mile of shoreline in lower Discovery Bay between Port Townsend and Sequim to improve habitat for multiple species. The area is used by juvenile summer chum salmon, which are listed as threatened with extinction under the federal Endangered Species Act, spawning forage fish and a unique population of native Olympia oysters. The coalition will remove early 1900s industrial fill, shoreline armoring, a creosote railway trestle and a defunct tide gate. By removing a portion of the old railroad grade, a 1-acre pocket estuary will be created where now an artificially impounded freshwater pond exists. Two acres of beach, degraded by the presence of rip rap and paved with industrial fractured rock, will be cleaned up and re-graded to a natural slope using material suitable for forage fish spawning and shellfish. The coalition will contribute \$85,340 from a federal grant and donations of cash. See [more information](#) about this project. (11-1314)

PACIFIC COAST SALMON COALITION

GRANT AWARDED: \$86,791

RESTORING CHRISTMAS CREEK DRAINAGE

The Pacific Coast Salmon Coalition will use this grant to remove three culverts on Christmas Creek and reshape the land back to its natural grade. The coalition will replace one of the culverts with a new one, and simply remove two others. The work will open the majority of blockages on significant fish bearing tributaries to a major producer of smolt on the Clearwater River in Jefferson County. The Christmas Creek tributaries currently have more than 3 miles of inaccessible habitat for spawning, rearing and overwintering. The tributaries are used by coho, steelhead and cutthroat. The coalition will contribute \$46,733 in cash and donations of materials. See [more information](#) about this project. (11-1340)

Salmon Recovery

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WILD FISH CONSERVANCY

GRANT AWARDED: \$505,677

RESTORING THE DOSEWALIPS FLOODPLAIN AND ESTUARY

The Wild Fish Conservancy will use this grant to finish another phase of work to restore the Dosewalips floodplain and estuary. The project, entirely within Dosewallips State Park, was started in 2003 and has included levee and revetment removal as well as the installation of logjams and the reestablishment of native forests. This phase will include removal of more than a quarter-mile of revetment and levee, construction of three logjams and decommissioning of a road and campsites in the channel migration zone. The conservancy will contribute \$139,000 from a state grant. See [more information](#) about this project. (11-1354)

10,000 YEARS INSTITUTE

GRANT AWARDED: \$73,000

CONTROLLING HOH RIVER KNOTWEED

The 10,000 Years Institute will use this grant to eradicate invasive bohemian and giant knotweed to preserve and restore the forests along the Hoh River. Knotweed rapidly and completely disrupts natural succession in Washington's forests, damaging critical habitats that support the Hoh River's wild salmon, steelhead and bull trout. The Hoh River watershed is famous for recreational fishing and boating. The project covers 30 miles of the Hoh River floodplain on the Olympic Peninsula in west Jefferson County, from the point of original infestation at a homestead, downstream to the river's mouth at the Pacific Ocean. After nine years of surveys and treatment, the Hoh knotweed infestation has been reduced successfully to a sparse but widely dispersed population. The majority of 108 plant sites observed in 2010 were less than 3 feet in height, and only one to two stems. New plants grow from stem and root fragments, deposited by floodwaters. Data from this project also informs scientists about this species' ecology and effectiveness of evolving control strategies. The institute will contribute \$35,948 in donations of labor and materials. See [more information](#) about this project. (11-1455)

For more projects in Jefferson County, look under the "Multiple Counties" headline at the end of this document.

PROJECTS IN KING COUNTY

\$1,893,221

BOTHELL

GRANT AWARDED: \$50,000

STUDYING THE RESTORATION SAMMAMISH RIVER SIDE CHANNEL

The City of Bothell will use this grant to assess the feasibility of reconnecting more than a quarter-mile of side channel and wetlands to the Sammamish River. This work would restore off-channel rearing habitat for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, and other species, such as coho, sockeye and steelhead. The City will evaluate several restoration options, including removing non-native plants and fill; excavating connections to the side channel, wetlands and river; placing logs and tree root wads in the side channel, wetlands and possibly river shoreline; replanting the area; and incorporating

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public outreach education opportunities. The side channel would be connected to the Sammamish River at both the upper and lower ends. Bothell will contribute \$8,825 in staff labor. See [more information](#) about this project. (11-1517)

ISSAQUAH

GRANT AWARDED: \$294,952

RESTORING ISSAQUAH CREEK

The City of Issaquah will use this grant to restore creek bank habitat at the confluence of Issaquah Creek and the east fork of Issaquah Creek. Conceptually, the City would remove the hardened creek banks, reconfigure the channel; add logjams and large woody materials; create side-channel habitat for juvenile salmon species at the two relic oxbows; replant the creek banks; and, restore a wetland. The two creeks are bounded by three contiguous parks: Tolle Anderson, Cybil-Madeline, and Issaquah Creek Parks and Parks Maintenance facility. Issaquah will contribute \$55,408 in staff labor, \$210,000 in city funds and a local grant. See [more information](#) about this project. (11-1496)

KENT

GRANT AWARDED: \$253,581

DESIGNING DOWNEY FARMSTEAD RESTORATION

The City of Kent will use this grant to complete the design and get permits for a project to realign Frager Road to allow creation of a side channel network and expanded floodplain at the Downey farmstead on the south bank of the Green River. The goal of the project is to create habitat for Chinook salmon to rear, rest and hide from predators. A secondary goal is to create additional flood storage to help alleviate flooding in urban and agricultural areas. The road alignment will provide a greater buffer from the river and will continue to be open to vehicular, bicycle and pedestrian access adjacent to river. Kent will contribute \$46,419 from a local grant. See [more information](#) about this project. (11-1219)

KING COUNTY

GRANT AWARDED: \$200,000

DESIGNING THE MCELHOE PEARSON LEVEE SETBACK

King County Water and Land Resources Division will use this grant to complete final designs to breach the McElhoe Pearson levee and place setback protection along the road on the Snoqualmie River near Carnation. This project will open habitat behind the levee, restoring up to 2.26 acres of off-channel habitat. The McElhoe Pearson levee is along the right bank of the Snoqualmie River, just upstream of the Carnation Farms Road bridge. Since the construction of the levee in 1960, the area behind the levee has been protected from significant changes and habitat forming processes and now contains a forest. The goal of this project is to restore natural floodplain inundation and channel migration processes along the Snoqualmie River, thereby restoring habitat conditions for numerous native salmon species, including Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, and coho, chum, pink salmon, steelhead and cutthroat trout. See [more information](#) about this project. (11-1271)

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KING COUNTY

GRANT AWARDED: \$200,000

DESIGNING THE REMOVAL OF THE PORTER LEVEE

The King County Water and Land Resources Division will use this grant to prepare a preliminary design for a project to remove up to a quarter-mile of the Porter levee to restore channel migration and habitat-forming processes. The County will develop a surveyed site plan, perform wetland and geotechnical studies and a hydrologic analysis, and prepare preliminary design plan drawings, a design report and an engineering cost estimate for construction of the project. The project will benefit Chinook and steelhead, which are listed as threatened with extinction under the federal Endangered Species Act, and coho. See [more information](#) about this project. (11-1364)

KING COUNTY

GRANT AWARDED: \$300,000

PRESERVING THE POINT HEYER DRIFT CELL

The King County Water and Land Resources Division will use this grant to buy nearly 15 acres of Vashon Island east shoreline to preserve the Point Heyer drift cell, which is the equivalent of a slow moving river of sand and gravel along the Puget Sound shoreline. This is part of a larger effort to preserve the entire drift cell, which begins at the feeder bluffs at Vashon Landing and ends 2.2 miles to the south at the Point Heyer barrier lagoon. Purchase of this land adds 5 acres of forest, nearly 5 acres of forested bluff and 484 feet of shoreline to the Point Heyer Natural Area. Eelgrass beds are present the entire length in the intertidal zone. The barrier lagoon and its more than 5-acre salt marsh are important habitat for juvenile salmonids. Chinook, chum, coho, cutthroat, pink and steelhead are known or expected to be present along the eastern shoreline of Vashon Island. Forage fish, which are a key food for salmon, also spawn along the drift cell. King County will contribute \$417,946 in conservation futures² and local and state grants. See [more information](#) about this project. (11-1282)

KING COUNTY

GRANT AWARDED: \$400,000

PROTECTING THE CEDAR RIVER BY BUYING FLOODPLAIN AT THE MOUTH OF TAYLOR CREEK

The King County Water and Land Resources Division will use this grant to acquire up to 13 acres at the mouth of the Taylor Creek on the Cedar River in an area characterized by significant ecological features and extensive existing public ownership. The landowners are willing to sell after many received flood damage in two recent floods. The land will contribute to establishing a contiguous corridor of shoreline that builds on property already acquired along both banks. The project sets the stage for large scale restoration of this reach of the Cedar River, expanding the habitat and water quality benefits of the reach and the river through levee setbacks. The lower Cedar River supports some of the most significant salmon runs in the region, including Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. King County will contribute \$400,000 from a local grant. See [more information](#) about this project. (11-1528)

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

Salmon Recovery

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KING COUNTY

GRANT AWARDED: \$131,091

RESTORING BIG SPRING CREEK

The King County Department of Natural Resources and Parks will use this grant to begin restoring Big Spring Creek. The county will build about three-quarter mile of new stream channel, create open-water and emergent pools, place logs and tree root wads into the newly created stream channel and wetland, replant the creek banks and re-route Big Spring Creek from road-side ditches to the recreated channel. The County also will monitor and maintain the area for at least five years after construction. King County will contribute \$275,000. See [more information](#) about this project. (11-1368)

SOUND SALMON SOLUTIONS

GRANT AWARDED: \$63,597

RESTORING THE SNOQUALMIE RIVERBANKS

Sound Salmon Solutions will use this grant to study the lower on-third mile of Cherry Creek from below the pump station to the Snoqualmie River. The information collected from this study will provide context for and identify high priority restoration projects that will improve habitat conditions for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, and other salmon species. The feasibility analyses will look at conditions within reaches of stream, identify barriers to doing projects and highlight the best and highest priority sites where restoration will be most successful. Sounds Salmon Solutions will complete this project within 18 months and is contributing \$12,380 in donated labor and equipment rental to this project. See [more information](#) about this project. (11-1256)

PROJECTS IN KITSAP COUNTY

\$366,735

BAINBRIDGE ISLAND LAND TRUST

GRANT AWARDED: \$286,410

RESTORING POWEL SHORELINE

The Bainbridge Island Land Trust will use this grant to remove armoring along more than a quarter-mile of privately owned shoreline in Port Madison on Bainbridge Island. The project will increase, by 163 percent, the intertidal habitat area, almost triple the amount of salt marsh habitat over time and enhance 32,795 square feet of shoreline habitat. This project focuses on recreating shallow, intertidal habitat important to juvenile salmon, particularly Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. The intertidal habitat is used for migration, feeding, refuge and physiological transition to and from saltwater. This is a showcase project for other landowners to increase awareness of the importance and option of voluntarily restoring shoreline habitats in Puget Sound. The land trust and Powel family will contribute \$50,543 from another grant and cash contributions. See [more information](#) about this project. (11-1505)

Salmon Recovery

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MID SOUND FISHERIES ENHANCEMENT GROUP ENHANCING GORST CREEK HABITAT

GRANT AWARDED: \$80,325

The Mid Sound Fisheries Enhancement Group will use this grant to enhance habitat in about a quarter-mile of Gorst Creek just downstream of Jarstad Park off West Belfair Valley Road. The creek has lost a lot of its quality spawning habitat. The enhancement group will place logs and tree root wads in the creek to slow the creek, reducing erosion and creating places for salmon to rest and hide from predators. The root wads also will create pools and eddies, which are places for fish rearing. The enhancement group also will stabilize the creek bank and slope the banks back where possible to re-connect the creek with the existing floodplain. Finally, the enhancement group will plant the creek bank. Both spawning and rearing habitat will be created, and current spawning habitat will be protected. Gorst Creek is home to steelhead and Chinook salmon, both of which are listed as threatened with extinction under the federal Endangered Species Act, as well as coho and chum salmon. The enhancement group will contribute \$14,175 from another grant. See [more information](#) about this project. (11-1470)

For more projects in Kitsap County, look under the "Multiple Counties" headline at the end of this document.

PROJECTS IN KITTITAS COUNTY

\$585,813

KITTITAS CONSERVATION TRUST DESIGNING LOGJAMS FOR THE CLE ELUM RIVER

GRANT AWARDED: \$172,000

The Kittitas Conservation Trust will use this planning and design grant to produce engineering designs for eight logjams that are proposed for construction in the lower Cle Elum River. The trust will produce a concept design, including a feasibility study and scientific analysis, and a preliminary and final project design. The project will draw upon existing logjam-related data, including extensive topographical surveys of the project reach, hydraulic modeling coupled with geomorphic assessments and analyses. The logjams are proposed to be placed in the Cle Elum River, 2 miles downstream from Lake Cle Elum dam. They are expected to direct the river into side channel rearing habitat, and improve freshwater quality and availability in a reach where natural river dynamics have been dramatically altered by the dam. The river is used by Chinook, coho, sockeye, steelhead and bull trout. See [more information](#) about this project. (11-1564)

KITTITAS COUNTY CONSERVATION DISTRICT FIXING IRRIGATION DIVERSIONS ON COLEMAN CREEK

GRANT AWARDED: \$333,313

The Kittitas County Conservation District will use this grant to build a siphon at the Ellensburg Water Company and Coleman Creek intersection and replace the upstream diversion with a structure that includes a fish screen and fishway for passage. This project is one in a series designed to provide safe fish passage in the lower 5 miles of Coleman Creek. This project will improve fish access for spring and summer Chinook and steelhead. The conservation district will

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contribute \$375,330 from federal and state grants and donations of cash. See [more information](#) about this project. (11-1525)

MID-COLUMBIA FISHERIES ENHANCEMENT GROUP

GRANT AWARDED: \$80,500

DESIGNING TEANAWAY FORKS LARGE WOOD TRAPPING

The Mid-Columbia Fisheries Enhancement Group will use this grant to design large wood trapping structures in the Teanaway River forks to increase pools, retain spawning gravels, provide overhead cover, and decrease stream temperatures. The enhancement group first will assess current habitat in the west, middle and north forks of the Teanaway River, and will meet with Teanaway landowners to discuss the potential for trapped large wood to improve fish habitat. The enhancement group then will identify a 2-mile reach in the north fork of the Teanaway River, and half-mile reaches in the middle and west forks of the Teanaway River to serve as pilot reaches. The group will design large wood trapping structures to function as key pieces at meander bends and at slope breaks within the rivers. This project is intended to design habitat improvements for spring Chinook, steelhead, bull trout and cutthroat trout. See [more information](#) about this project. (11-1321)

For more projects in Kittitas County, look under the "Multiple Counties" headline at the end of this document.

PROJECTS IN KLICKITAT COUNTY

\$718,400

COLUMBIA LAND TRUST

GRANT AWARDED: \$520,000

RESTORING THE KLICKITAT RIVER FLOODPLAIN

The Columbia Land Trust in partnership with the Yakama Nation Fisheries Program will use this grant to remove fill and pull back a road to restore connectivity to the Klickitat River floodplain and soften the channel boundary along 1.7 miles of road. The partners also will replant the disturbed areas with native trees to improve the riverbank. This portion of the river has the greatest habitat complexity of any reach in the lower Klickitat River and provides critical spawning, migration and rearing habitat for winter and summer steelhead, which are listed as threatened under the federal Endangered Species Act, as well as Chinook and coho salmon. The project sponsors will contribute \$92,175 from a grant. See [more information](#) about this project. (11-1428)

EASTERN KLICKITAT CONSERVATION DISTRICT

GRANT AWARDED: \$63,400

ASSESSING AND COMPLETING CONCEPTUAL DESIGNS FOR ROCK CREEK RESTORATION PROJECTS

The Eastern Klickitat Conservation District in partnership with the Yakama Nation Fisheries Program will use this grant to assess Rock Creek and its tributaries in Klickitat County, east of Goldendale, and make recommendations on the most likely sites for habitat improvement. The project area will cover the length of Rock Creek from the mouth to above the Bickleton Bridge,

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Luna Gulch up to river mile three and Squaw Creek up to Harrison Creek. Also in this proposal will be a thorough geomorphic survey of the project area, including field survey, geomorphic mapping and channel migration study. The goal of this project is to lay the groundwork for successful improvement of habitat for rearing and spawning steelhead and Chinook salmon. The ultimate outcome is to build structures in the water, stabilize the channel and create cold-water pools for fish to rest during dry periods. The project partners will contribute \$11,188 in donations of cash. See [more information](#) about this project. (11-1344)

UNDERWOOD CONSERVATION DISTRICT

GRANT AWARDED: \$135,000

FIXING BUCK CREEK FISH PASSAGE AND MAKING IRRIGATION IMPROVEMENTS

The Underwood Conservation District will use this grant to assess the feasibility and complete 70 percent of the design for a project to restore fish passage in Buck Creek, install a fish screen and improve the irrigation system overflow. The irrigation dam on Buck Creek at the outtake for the White Salmon Irrigation District is a barrier to fish passage, and the diversion itself is unscreened. The project will focus on providing fish passage at the dam and screening the irrigation outtake in Buck Creek. This will restore access to more than 1 mile of spawning and rearing habitat for Chinook, coho, bull trout and steelhead, all of which are listed as threatened under the federal Endangered Species Act, as well as cutthroat and rainbow trout, all of which are anticipated to use Buck Creek once Condit Dam is removed. See [more information](#) about this project. (11-1499)

PROJECTS IN MASON COUNTY

\$1,624,289

CAPITOL LAND TRUST

GRANT AWARDED: \$450,000

CONSERVING THE UPPER GOLDSBOROUGH CREEK

The Capitol Land Trust will use this grant to buy and conserve 185 acres of wetland and shoreline on upper Goldsborough Creek, east of Shelton. The project site, consisting of three non-contiguous parcels, is bisected by more than 1.3 miles of Goldsborough Creek and tributaries and contains more than 160 acres of riparian corridor and wetlands that are an active part of the Goldsborough Creek floodplain. The creek is used by coho, winter steelhead and cutthroat trout. The project site is next to two other properties already conserved by Capitol Land Trust. This project is part of a larger initiative to restore and protect the Goldsborough Creek watershed. The creek is the only creek in southern Puget Sound that has seen its numbers of coho increase. The land trust will contribute \$79,411 in donated property interest. See [more information](#) about this project. (11-1554)

HOOD CANAL SALMON ENHANCEMENT GROUP

GRANT AWARDED: \$300,000

RESTORING THE UNION RIVER ESTUARY

The Hood Canal Salmon Enhancement Group will use this grant to breach a dike in two places, allowing water to flow freely over 32 acres in the Union River estuary in Belfair. The breaches will

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allow the water to recreate a historic salt marsh, which is vital for endangered Hood Canal summer chum, Puget Sound Chinook, which are listed as threatened with extinction under the federal Endangered Species Act, as well as coho and cutthroat trout. Crews will build a walkway over the dike breaches to maintain an existing trail system. In addition to helping salmon, the restoration work will prevent flooding of the neighboring farm and potentially increase its productivity. The enhancement group will contribute \$1.5 million from a federal grant. See [more information](#) about this project. (11-1348)

LONG LIVE THE KINGS

GRANT AWARDED: \$135,591

COMPLETING DESIGNS FOR THE LILLIWAUP CREEK RESTORATION PROJECT

Long Live the Kings will use this grant to finalize the design plan for restoring Lilliwaup Creek. The creek is home to summer chum salmon and steelhead trout, both of which are listed as threatened with extinction under the federal Endangered Species Act. The last half mile of creek historically was a spawning and rearing stronghold for summer chum despite being cut short by a 125-foot waterfall. Now this habitat is in poor shape because of thousands of yards of gravel that filled it in 2007. The gravel reduces the creek's flow, somewhat blocking its connection to the estuary. The creek banks also lack plants and trees, which can stabilize the creek by preventing sediment from dumping into the creek, provide shade to cool the water and attract insects that salmon eat. Unmaintained culverts block fish use of side streams and pools. Local residents are concerned about the creek's condition and express interest in seeing it restored. Over 16 years and several hundred thousand dollars in supplementation efforts to recover the Lilliwaup summer chum population are at risk if these issues are not addressed. See [more information](#) about this project. (11-1316)

MASON CONSERVATION DISTRICT

GRANT AWARDED: \$58,227

IMPROVING HABITAT IN CRANBERRY CREEK

The Mason Conservation District will use this grant to put logs and tree root wads in the lowest reach of Cranberry Creek to improve habitat for coho, chum, Chinook, searun cutthroat and resident trout. The logs and root wads will slow the creek, creating places for salmon to rest and hide from predators. The conservation district also will replant the creek shoreline to create a buffer. The trees will shade the creek, cooling the water for salmon. This project will benefit Cranberry Creek by improving the quality and quantity of shoreline habitat, increasing pools and providing shaded refuge to juvenile fish, especially during extreme summer low flows. The conservation district will contribute \$10,276 from a local grant. See [more information](#) about this project. (11-1559)

MASON CONSERVATION DISTRICT AND SKOKOMISH TRIBE

GRANT AWARDED: \$203,591

PROTECTING SKOKOMISH RIVER FLOODPLAIN LANDS

The Mason Conservation District will use this grant to acquire and restore land in the Skokomish River floodplain. Several important parcels will be conserved in an important wetland system adjacent to State Route 101 and the Skokomish River, and will complete a landscape scale conservation effort by the Skokomish Tribe, Washington Department of Fish and Wildlife,

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Forterra and Mason County. The grant will help pay for appraisals, surveying, title search and transactions, building demolition and replanting. The conservation district and tribe will contribute \$77,500 in donations and a grant. See [more information](#) about this project. (11-1358)

MASON COUNTY

GRANT AWARDED: \$71,981

CONSERVING SUNSET BLUFF SHORELINE

The Mason County Parks and Trails Department will use this grant to buy 36.5 acres along the shoreline of Oakland Bay in south Puget Sound. The land includes about a quarter-mile of natural, unarmored shoreline, 10.3 acres of marine riparian habitat, 4.2 acres of stream riparian habitat and 22 acres of forest and open areas. The County plans to use the site for a low-impact, day-use, natural setting public park. Conservation as a park will maintain water quality, protect habitat for forage fish and keep a natural shoreline with high-functioning ecological processes for salmon species rearing and migration. This project is the third of four strategic shoreline acquisitions on Oakland Bay that will conserve land for wildlife and people. The project is supported by the Squaxin Island Tribe, Taylor Shellfish, People for Puget Sound, Capitol Land Trust and the Oakland Bay Clean Water District, among many others. Mason County will contribute \$400,000 from a private grant. See [more information](#) about this project. (11-1522)

MASON COUNTY

GRANT AWARDED: \$28,760

PROTECTING THE NORTH BAY AND COULTER CREEK ESTUARY

Mason County will use this grant to buy and protect 50 acres of tidelands, salt marsh and forest associated with North Bay and the Coulter Creek estuary, in Case Inlet. Completing this acquisition will protect a half-mile of Puget Sound shoreline habitat and a majority of the Coulter Creek estuary. The salt marsh and shoreline are largely undisturbed and provide critical rearing habitat for several species of salmon. Protecting this property will ensure the availability of salmon rearing and transitional habitat and safeguard existing natural shoreline processes. The forest will remain a forest and eliminate the potential for housing development and uses that would be attractive on one of the last few remaining undeveloped parcels on North Bay. Mason County will contribute \$884,240 from a state grant. See [more information](#) about this project. (11-1391)

SKOKOMISH TRIBE

GRANT AWARDED: \$326,139

REMOVING BARRIERS TO FISH PASSAGE IN THE SKOKOMISH RIVER ESTUARY

The Skokomish Tribe will use this grant to complete design, engineering, construction and replanting for a project to remove multiple barriers to out-migrating juvenile fish near the great bend of Hood Canal. The barrier removals will open saltwater and freshwater habitats to Puget Sound Chinook, Hood Canal summer chum and coastal bull trout, all of which are listed as threatened with extinction under the federal Endangered Species Act. Other fish to benefit are coastal steelhead, cutthroat, coho and pink salmon. This is the third phase of the Skokomish estuary restoration project. The tribe will contribute \$605,688 from state and federal grants. See [more information](#) about this project. (11-1361)

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SOUTH PUGET SOUND SALMON ENHANCEMENT GROUP **IMPROVING GOLDSBOROUGH CREEK HABITAT**

GRANT AWARDED: \$50,000

The South Puget Sound Salmon Enhancement Group will use this grant to place logs and tree root wads in Goldsborough Creek to improve habitat for coho, chum, steelhead and cutthroat. The enhancement group will place a large crib wall along the railroad bank to stabilize the bank, replant the creek bank and place a logjam on the edge of the thalweg upstream of the railroad. The logjam will split high stream flows and reactivate a relict side channel, creating a place or salmon species to go during high water. The enhancement group will contribute \$167,000 from a federal grant. See [more information](#) about this project. (11-1543)

For more projects in Mason County, look under the "Multiple Counties" headline at the end of this document.

PROJECTS IN OKANOGAN COUNTY

\$656,287

CASCADE COLUMBIA FISHERIES ENHANCEMENT GROUP **DESIGNING WAYS TO PROVIDE COOL WATER FOR SALMON NEAR DRISCOLL ISLAND**

GRANT AWARDED: \$42,500

The Cascade Columbia Fisheries Enhancement Group will use this grant to investigate the feasibility and design a side channel restoration project that would provide a cool water, off-channel place for juvenile salmon species to rest during the summer and early fall. Water temperatures frequently are too warm for salmon species to survive in the Okanogan and Similkameen Rivers. See [more information](#) about this project. (11-1240)

METHOW CONSERVANCY **CONSERVING THE BANKS OF THE UPPER METHOW RIVER**

GRANT AWARDED: \$286,072

The Methow Conservancy will use this grant to buy conservation easements on nearly 60 acres along the upper Methow River, removing the possibility for development. The upper Methow River is a major spawning area for spring Chinook salmon, which are endangered, and for steelhead, which are listed as threatened with extinction under the federal Endangered Species Act, as well as being a core area for bull trout, which also are listed as threatened with extinction. The first easement would cover about a half-mile of riverfront and a large side channel. A second easement would cover the floodplain, 980 feet of riverfront, a portion of Cold Creek and extensive wetlands. This project will add to other riverfront properties already conserved by the Methow Conservancy, protecting almost 24 miles of riverfront (including both sides of the river) along the 23-mile upper Methow River. The easements would prohibit development permanently along the riverbanks, and habitat destruction by deeding development rights and habitat protection provisions to the conservancy. Without protection, it is highly likely that riverbank plants and trees would be cleared for river access and houses. The existing shoreline regulations in Okanogan County allow homes to be built within 50 feet of the ordinary high water mark and also allow motorized recreational trails, logging, filling and diking. The

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easements would restrict these activities and ensure that floodplain processes important for maintaining water storage, water cooling, woody material recruitment and erosion control remain in perpetuity. The conservancy will contribute \$53,500 in donations of cash and land. See [more information](#) about this project. (11-1495)

METHOW SALMON RECOVERY FOUNDATION

GRANT AWARDED: \$31,015

BUYING LAND ALONG THE METHOW RIVER

The Methow Salmon Recovery Foundation will use this grant to buy nearly 1 acre along the Methow River, off Witte Road, north of Twisp. The land includes riverbank, side channel habitat and an active floodplain. The land is adjacent to another salmon grant funded Methow Salmon property, which encompasses 17 acres. The land could be developed for a single-family home. The surrounding land provides significant habitat diversity, natural water storage and critical rearing, refuge and migratory habitat for upper Columbia River spring Chinook, which are endangered, and summer steelhead and bull trout, both of which are listed as threatened with extinction under the federal Endangered Species Act, as well as a wide variety of other wildlife. The neighboring land supports some of the highest densities of summer Chinook spawning in the Methow River. The foundation will contribute \$6,310 from another grant. See [more information](#) about this project. (11-1426)

METHOW SALMON RECOVERY FOUNDATION

GRANT AWARDED: \$111,700

PURCHASING THE BANKS OF THE TWISP RIVER

The Methow Salmon Recovery Foundation will use this grant to buy all or part of 4.3 acres on the left bank of the Twisp River, in Twisp. The land is mostly active floodplain and side channel and purchasing it would allow removal of a protective levee that limits restoration in the area. The land is adjacent to other salmon grant funded Methow Salmon properties, which now encompass nearly 32 acres with ongoing restoration activities, environmental education and a growing trail system. The parcels, though not currently for sale, could be developed. The river is home to upper Columbia River spring Chinook, which are endangered, and steelhead and bull trout, both of which are listed as threatened with extinction under the federal Endangered Species Act. The foundation will contribute \$29,000 from another grant. See [more information](#) about this project. (11-1425)

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

GRANT AWARDED: \$185,000

PROTECTING THE SILVER SIDE CHANNEL OF THE METHOW RIVER

The Department of Fish and Wildlife will use this grant to buy 25 acres and purchase a conservation easement on another 20 acres along the Methow River, about 3 miles downstream from Twisp on the east side of the Silver side channel. The purchases will allow the department to protect the forested riverbanks, floodplain and a significant channel migration zone. Protecting this area will allow for a large restoration project to benefit Chinook salmon, which are endangered, steelhead and bull trout, both of which are listed as threatened with extinction under the federal Endangered Species Act, and coho salmon. The Methow River doesn't have many side channels with rearing habitats, and this site contains one of the best opportunities to

Salmon Recovery

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restore this critical habitat. The area has deep water, cool temperatures, and trees that provide shade. Outdoor recreation would be allowed on acquired lands, which would be adjacent to lands already owned by the department. The department will contribute \$360,000 from two grants. See [more information](#) about this project. (11-1518)

PROJECTS IN PACIFIC COUNTY

\$485,989

COLUMBIA LAND TRUST

GRANT AWARDED: \$150,000

CONSERVING THE COLUMBIA RIVER ESTUARY

The Columbia Land Trust will use this grant to buy 420 acres of fish and wildlife habitat on the lower Columbia River estuary. All Columbia River salmon and steelhead, most of which are protected under the federal Endangered Species Act, use the Columbia River estuary before migrating to the ocean. The land is on Knappton Cove, between the Astoria-Megler Bridge and Naselle in Pacific County. The property consists of wetlands, tidelands, forest, three-quarters of a mile of Columbia River shoreline and eight small streams. The land is adjacent to 130 acres conserved by Washington Department of Fish and Wildlife, contributing to a conservation area totaling 550 acres with nearly 2 miles of Columbia River shoreline. The shoreline, streams, marsh and cove-sheltered tidelands provide places for salmon to feed and transition from freshwater to saltwater. The forest and streams also provide cool water, nutrients, prey and large wood, which, when it falls in the river, creates places for salmon to rest and hide. The land trust will contribute \$150,000 from a federal grant. See [more information](#) about this project. (11-1346)

COLUMBIA LAND TRUST

GRANT AWARDED: \$100,000

CONSERVING WILLAPA BAY AND THE NORTH NEMAH RIVER

The Columbia Land Trust will use this grant to conserve 80 acres of wildlife habitat at the confluence of the North Nemah River and Willapa Bay. Located at State Highway 101, south of South Bend, the property consists of wetlands, river bank and forest. It has 1,000 feet of North Nemah River, nearly a half-mile of fish-bearing streams, 30 acres of salt marsh and 20 acres of riverbank habitats. The property is adjacent to more than 900 acres of Willapa Bay shoreline conserved by the Washington Department of Fish and Wildlife and Cascade Land Conservancy, adding to habitat connectivity. Fall and spring Chinook, chum, winter and summer steelhead, coho and cutthroat all use the site. The Nemah River also has a production hatchery, mostly releasing coho to support the fishing industry and recreationalist. All of these fish must pass and use the property's tidelands, shoreline, wetlands and streams at least twice in their lives. It is likely that traditional uses such as fishing and hunting by permission will be allowed. The land trust will contribute \$100,000 from a federal grant. See [more information](#) about this project. (11-1598)

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PACIFIC CONSERVATION DISTRICT

GRANT AWARDED: \$150,000

CONTROLLING KNOTWEED CONTROL ON THE NORTH RIVER

The Pacific Conservation District will use this grant to control invasive knotweed in the North River watershed during the next two years. This project continues work that was begun in 2011. Crews will re-treat about 10 river miles and begin treatment on another 22 river miles. The crews also will treat infestations in some small streams that flow into the North River. The Pacific County Weed Board will treat knotweed infesting county rights-of-way that are near the watershed. The conservation district will be dedicating time to public education, assistance and knotweed control monitoring. The conservation district will contribute \$26,465 in donations of equipment, labor and materials. See [more information](#) about this project. (11-1599)

THE NATURE CONSERVANCY

GRANT AWARDED: \$85,989

REMOVING FISH BARRIERS IN ELLSWORTH CREEK

The Nature Conservancy will use this grant to remove a fish blocking culvert and associated fill, giving fish access to about 1 mile of habitat. Culvert removal also will reduce impacts from chronic sediment inputs and road-induced landslides. The project is in a tributary of Ellsworth Creek, near its confluence in the Naselle River and Willapa Bay estuary. Originally constructed for rail access during World War I, the road was built by filling the creek, creating a barrier to fish. The project will open rearing habitat for coho salmon, cutthroat and steelhead trout. Removing this fish barrier and the adjoining road is the final phase in The Nature Conservancy's efforts to remove all stream-adjacent roads in the Ellsworth Creek watershed. The Nature Conservancy will contribute \$32,508 from a federal grant and donations of cash. See [more information](#) about this project. (11-1597)

PROJECTS IN PEND OREILLE COUNTY

\$360,000

KALISPEL TRIBE

GRANT AWARDED: \$196,955

RESTORING THE MIDDLE BRANCH OF LECLERC CREEK

The Kalispel Tribe, in partnership with the U.S. Forest Service's (Colville), will use this grant to obliterate 2.6 miles of U.S. Forest Service Road 1935, which lies in the floodplain and alongside the middle branch of LeClerc Creek. The project partners will rebuild 2.2 miles of new road away from the creek and replant the creek banks. This is part of a larger project that will include removal of four barriers to fish passage at road crossings, including seven culverts. Relocation and obliteration of the road will improve continuity and function of the floodplain and creek banks. It will help with stream shading, erosion control and stabilization of the creek banks. The overall project also will restore fish passage to more than 5 miles of native bull trout and westslope cutthroat trout habitat. The tribe and Forest Service will contribute \$263,778. See [more information](#) about this project. (11-1516)

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PEND OREILLE COUNTY

GRANT AWARDED: \$80,846

DESIGNING INDIAN CREEK FISH PASSAGE

Pend Oreille County Public Works Department will use this grant to design and obtain environmental permits for a project to fix a stream crossing on Indian Creek. The existing culvert blocks fish passage to about 5 miles of habitat. Indian Creek is a tributary to the Pend Oreille River. The crossing location is about 5 miles north and west of Newport on LeClerc Road. This creek provides habitat for native bull trout and westslope cutthroat trout. See [more information](#) about this project. (11-1511)

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

GRANT AWARDED: \$82,199

ASSESSING AND PRIORITIZATION BARRIER FIXES IN THE PEND OREILLE WATERSHED

The Department of Fish and Wildlife will use this grant to inventory, assess and prioritize for fixing all human-made, fish passage barriers in Water Resource Inventory Area 62, which primarily includes waters within Pend Oreille County that contribute to the Pend Oreille River. The department will use this information to update the local salmon recovery strategy. Several inventories have been conducted in the past decade, but large gaps of information still exist. For example, none of the previous assessments were conducted in the Colville National Forest, which makes up nearly half the land in Water Resource Inventory Area 62. The department found that 90 percent of stream crossing structures in the Idaho Panhandle National Forest, within the water resource inventory area, were barriers to fish passage, and expect a similar percentage in the Colville National Forest. As part of this work, the department will analyze 17 culverts that were identified as "unknown" barriers during previous inventories and complete inventories of surface water diversions along the Pend Oreille River. The department will contribute \$25,020 in staff labor and donations of labor. See [more information](#) about this project. (11-1514)

PROJECTS IN PIERCE COUNTY

\$2,970,987

NISQUALLY LAND TRUST

GRANT AWARDED: \$330,530

PROTECTING THE MASHSEL RIVER SHORELINE

The Nisqually Land Trust will use this grant to buy 29 acres with Mashel River shoreline, expanding the block of protected shoreline to 250 acres. The purchase will protect the land permanently and ensure available habitat for Chinook salmon and steelhead trout, both of which are listed as threatened with extinction under the federal Endangered Species Act, in an important channel-migration zone. The Mashel River is the largest salmon-bearing tributary to the Nisqually River, near Eatonville. The land trust will contribute \$58,328 in conservation futures³. See [more information](#) about this project. (11-1531)

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

Salmon Recovery

2011 GRANTS AWARDED



NISQUALLY LAND TRUST

GRANT AWARDED: \$225,000

PROTECTING THE MIDDLE OHOP CREEK

The Nisqually Land Trust will use this grant to protect 38 acres and nearly a half-mile of riverbank along middle Ohop Creek. The land trust will use a voluntary land preservation agreement known as a conservation easement to protect the land permanently. It also will plant the riverbank to improve habitat. This stretch of Ohop Creek supports spawning areas for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, as well as coho and pink salmon. Protection of this property will allow for continued channel migration in this section of the Ohop valley, near Eatonville. The land trust will contribute \$76,050 from a local grant and donated land. See [more information](#) about this project. (11-1530)

NISQUALLY LAND TRUST

GRANT AWARDED: \$400,000

PROTECTING THE OHOP VALLEY

The Nisqually Land Trust will use this grant to buy for permanent protection about 114 acres in the lower Ohop Valley. This acquisition will make it possible to proceed with the next phase of the channel realignment and valley restoration of lower Ohop Creek, and will protect permanently the bluffs and forest adjacent to the Ohop Creek floodplain. The previous phase occurred on land trust property immediately upstream and restored more than 100 acres of riverbank and wetland and recreated more than 1 mile of stream channel. This protection project would allow for an additional 2 miles of new stream that would connect the current phase with the intact areas near the confluence with the Nisqually River. The 89-year-old landowner will retain a life estate to live in and use the home and buildings on a small portion of the property and will serve as a volunteer site steward. The property directly adjoins a land trust property and the Nisqually Mashel State Park. The purchase will create a substantially larger protected habitat block in the Ohop Valley. The land trust will contribute \$270,000 in conservation futures⁴. See [more information](#) about this project. (11-1538)

ORTING

GRANT AWARDED: \$689,226

BUILDING THE CALISTOGA SETBACK LEVEE

The City of Orting will use this grant to remove 1.5 miles of an existing levee and construct a new levee away from the existing river channel to reconnect about 53 acres of Puyallup River floodplain and an additional 46 acres of side-stream habitat. Historically, the Puyallup River would meander through the entire floodplain, a natural river process. This created excellent salmon habitat with multiple river channels separated by sand and gravel bars. In the 1930s, a man-made levee system disconnected the river from its floodplain and prevented natural meandering, isolating critical salmon habitat. Since construction of miles of levee on the river and development of the floodplains, spawning Chinook numbers have been reduced from 42,000 to 1,300. The new levee will reestablish natural riverine processes, reconnect a portion of

⁴ Conservation 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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the Puyallup River to its natural floodplain and restore salmon habitat damaged by human construction. Additionally, structures constructed of logs will help promote the braiding of the river as well as provide refuge for salmon species. This levee will benefit Chinook and bull trout, both of which are listed as threatened with extinction under the federal Endangered Species Act. Orting will contribute \$138,080. See [more information](#) about this project. (11-1506)

PIERCE COUNTY

GRANT AWARDED: \$489,656

BEGINNING RESTORATION OF THE SOUTH FORK OF THE PUYALLUP RIVER

Pierce County Surface Water Management will use this grant to construct a major side channel in the left overbank floodplain of the Puyallup River. This is the first phase of a larger project to reconnect and restore the floodplain of the south fork of the Puyallup River for salmon and other fish species. The proposed major side channel is nearly a half-mile long. Several logjams will be built and placed in and along the side channel and its banks. Two logjams will be placed in the Puyallup River near the upstream end of the side channel connection point. The logjams slow the river, creating pools, riffles and places for fish to rest and hide from predators. They also will create more types of habitat in the river and make the floodplain function more naturally. A portion of the grant will be used for additional hydraulic modeling and engineering design work for the major side channel. Pierce County will contribute \$86,410. See [more information](#) about this project. (11-1465)

PIERCE COUNTY

GRANT AWARDED: \$393,225

RESTORING THE FLOODPLAIN AT FENNEL CREEK

Pierce County Surface Water Management will use this grant to design, get permits, remove a revetment and plant trees in a floodplain along the Puyallup River. Fennel Creek provides important spawning and rearing habitat to multiple species of salmon and has been degraded by past agricultural practices. Both the Puyallup River and Fennel Creek need restoration. Crews will remove a rip rap revetment, allowing the banks to slowly erode and add flow diversity to the Puyallup River for salmon. Crews also will plant trees in the floodplain. Work will be done at, and along, the right bank of the Puyallup River at mile 18. The project will benefit Chinook and steelhead, both of which are listed as threatened with extinction under the federal Endangered Species Act, as well as bull trout, chum, coho, cutthroat and pink salmon. Pierce County will contribute \$69,392. See [more information](#) about this project. (11-1508)

PIERCE COUNTY CONSERVATION DISTRICT

GRANT AWARDED: \$55,250

ERADICATING NISQUALLY KNOTWEED

The Pierce County Conservation District will use this grant to inventory and eradicate Japanese knotweed from the Nisqually River basin. The conservation district will complete surveys of the Nisqually River and its tributaries, begin to eradicate all knotweed found in the basin beginning at the furthest upstream occurrence, replant native vegetation, and inform residents in target communities about knotweed and other invasive plants. The district will survey 75+ river miles of the Nisqually and its tributaries in Pierce, Thurston and Lewis Counties and treat about 150 acres. The Nisqually River and its tributaries are important spawning and rearing reaches for

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Nisqually River Chinook, coho, chum and steelhead. Japanese knotweed significantly degrades habitat for fish along the river. The conservation district will contribute \$9,750. See [more information](#) about this project. (11-1533)

SOUTH PUGET SOUND SALMON ENHANCEMENT GROUP REMOVING A ROAD OVER THE CLEARWATER RIVER

GRANT AWARDED: \$60,000

The South Puget Sound Salmon Enhancement Group will use this grant to remove more than a quarter-mile of road, remove fill and surfacing material and grade the former road bed on the Clearwater River. This project expands the length of road being removed by Hancock Forest Management, which already is abandoning a section of road in the upper project reach. Hancock Forest Management will remove a section of road between two washouts surrounding Mineral Creek. This grant expands the area of road to be removed to include more than a quarter-mile section upstream of Mineral Creek to the confluence of the Clearwater River with Byron Creek. Removal of the road will connect up to 10 acres of floodplain habitat including a 5-acre wetland that provides valuable rearing habitat. The enhancement group will contribute \$60,000 in donations of cash. See [more information](#) about this project. (11-1463)

SOUTH PUGET SOUND SALMON ENHANCEMENT GROUP REMOVING PENROSE POINT STATE PARK BULKHEAD

GRANT AWARDED: \$328,100

The South Puget Sound Salmon Enhancement Group will use this grant to remove a creosote bulkhead, rip rap armor and fill along a bluff-backed beach in Penrose Point State Park on Carr Inlet. The 700-foot-long bulkhead with rip rap toe protection has damaged the habitat and habitat forming processes in the park. Removal of the bulkhead will improve the beach for rearing and foraging salmonids, specifically Chinook, salmon, which are listed as threatened with extinction under the federal Endangered Species Act, as well as coho, chum and pink salmon. The enhancement group will contribute \$57,900 from a grant and donated labor. See [more information](#) about this project. (11-1459)

PROJECTS IN SAN JUAN COUNTY

\$405,830

FRIENDS OF THE SAN JUANS

GRANT AWARDED: \$49,850

CREATING A NEIGHBORHOOD SALMON CONSERVATION EASEMENT PROGRAM

The Friends of the San Juans will use this grant to develop materials for a Neighborhood Salmon Conservation Easement Program. The friends group will create a multiple landowner easement template, inform landowners and test incentives at targeted salmon recovery regions in San Juan County. Protection of high quality shoreline habitat is the top salmon recovery strategy for the county, but it's not being achieved with regulations and buying land is too expensive. The friends group will create a neighborhood easement tool that protects shoreline habitat along adjacent parcels. Planning will focus on Waldron, south Lopez and northwest Orcas Island. These three areas are top protection priorities for salmon and forage fish and a culture of

Salmon Recovery

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environmental stewardship. The Friends of the San Juans will contribute \$8,800 from a grant. See [more information](#) about this project. (11-1560)

FRIENDS OF THE SAN JUANS

GRANT AWARDED: \$99,985

RESTORING BLAKELY ISLAND FORAGE FISH HABITAT

The Friends of the San Juans will use this grant to restore surf smelt spawning habitat and improve shoreline habitat for salmon and salmon prey by removing a historic log handling and beach access facility, associated armoring, fill and beach debris and restoring the area. In the northern portion of Thatcher Bay on Blakely Island, a historic log handling and beach access structure is damaging surf smelt spawning habitat and other habitats important to salmon and the food salmon eat. Restoration activities include removing the current structure, as well as associated beach debris, re-grading the upper beach and backshore and replanting vegetation. The project improves habitat for forage fish, Chinook salmon and eelgrass. Friends of the San Juans will contribute \$17,730. See [more information](#) about this project. (11-1523)

NORTHWEST STRAITS MARINE CONSERVATION FOUNDATION

GRANT AWARDED: \$255,995

REMOVING ABANDONED FISHING GEAR

Northwest Straits Marine Conservation Foundation will use this grant to remove about 190 derelict fishing nets from around the San Juan Islands, focusing on Hein Bank and along the west side of San Juan Island. The nets will be removed from salmon migratory pathways. The foundation estimates the nets are degrading 19 acres of habitat and entangling more than 62 mammals, 1,096 birds, 3,460 fish and 117,375 invertebrates every year. This project will eliminate a direct source of mortality for adult salmon, rockfish and other marine animals and restore 19 acres of marine habitat important to salmon and rockfish for migration, rearing, feeding and refuge. The foundation will contribute \$45,699 from a federal grant. See [more information](#) about this project. (11-1567)

PROJECTS IN SKAGIT COUNTY

\$2,298,337

LUMMI NATION

GRANT AWARDED: \$419,838

RESTORING THE SOUTH FORK OF THE NOOKSACK RIVER'S CAVANAUGH ISLAND

The Lummi Nation will use this grant to construct six engineered logjams and wood structures in the south fork of the Nooksack River, upstream of Dye's Canyon. The project reach includes the greatest length of side channel habitat in the south fork's watershed. The logjams and wood structures will slow the river and create pools, which give salmon cool water in the summer and rearing pools in the winter. The south fork is home to Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, and bull trout. This project addresses the number one known factor limiting salmon populations in the area: Habitat diversity. The logjams and wood structures increase the complexity of habitat. The tribe will contribute \$128,042 from a federal grant. See [more information](#) about this project. (11-1450)

Salmon Recovery

2011 GRANTS AWARDED



SEATTLE

GRANT AWARDED: \$1,253,818

PROTECTING SKAGIT RIVER FLOODPLAIN

Seattle City Light and the Skagit Land Trust will use this grant to purchase 105 acres to protect high quality Chinook salmon habitat in the Skagit River system. The land includes floodplains of the Skagit River and major tributaries in the upper Skagit River reach, upstream of Rockport. The top four target properties are along Sorenson Creek, Jackman Creek, Jones Creek and the Skagit River. A lack of freshwater rearing and spawning habitat is limiting the production of the six independent Skagit River Chinook populations. Seattle City Light will contribute \$221,262 in donated property interest. See [more information](#) about this project. (11-1536)

SKAGIT COUNTY

GRANT AWARDED: \$102,000

REMOVING THE ROBINSON PARK ARMORING

Skagit County Public Works will use this grant to complete a risk assessment of the potential effect of removing an old bank hardening along Robinson Road, and then move toward removing the armoring and replanting the area. This road has long been abandoned but bank armoring remains. The armoring is about 250 feet and is covered by red alder, salmonberry and blackberry. The 32-acre county park on the Skagit River, just west of the town of Lyman, was purchased with a previous salmon grant. The risk assessment will include looking at the risk of removing additional bank hardening on additional county land upstream on the Skagit River. The County also plans to remove invasive plants. Skagit County will contribute \$18,000. See [more information](#) about this project. (11-1534)

SKAGIT FISH ENHANCEMENT GROUP

GRANT AWARDED: \$137,962

RESTORING HOBBIT CORNERS FLOODPLAIN

The Skagit Fish Enhancement Group will use this grant to place logs and tree root wads in the Sauk River as well as remove invasive plants from its shoreline and replant the riverbanks. The enhancement group's goal is to improve floodplain function by restoring native trees and shrubs and improving side channel habitat. The logs and root wads will slow the river, creating places for salmon to rest and hide. The enhancement group will contribute \$24,346 in donations of cash and labor. See [more information](#) about this project. (11-1555)

SKAGIT RIVER SYSTEM COOPERATIVE

GRANT AWARDED: \$384,719

BEGINNING RESTORATION OF ILLABOT CREEK

The Skagit River System Cooperative will use this grant to begin restoring Illabot Creek. The cooperative will remove a little less than a quarter-mile of dike downstream of the bridge over Illabot Creek, install log and rock structures to protect the existing power line towers, excavate pilot channels on the alluvial fan to encourage channel development and install log and tree root wads in the creek to improve habitat. Logs and tree root wads slow the water and provide places for salmon to rest and hide from predators. The restoration will improve the complexity of habitats, re-connect the creek with 12 acres of alluvial fan and increase the number and size of channels as Illabot Creek migrates over time. Illabot Creek is a highly productive tributary to the upper Skagit River that supports Chinook, chum, coho and pink salmon, native char and

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steelhead trout. Much of the watershed already has been protected or restored; however a half-mile reach on the historic alluvial fan of Illabot Creek is heavily degraded because the channel was relocated, straightened and constrained with rip rap dikes to protect the bridge crossing on Rockport-Cascade Road. This changed Illabot Creek to a single channel, reduced channel area and habitat complexity, degraded creek banks and eliminated connectivity with the floodplain and alluvial fan. The cooperative will contribute \$67,891 in donations of cash. See [more information](#) about this project. (11-1542)

For more projects in Skagit County, look under the "Multiple Counties" headline at the end of this document.

PROJECTS IN SKAMANIA COUNTY

\$47,306

LOWER COLUMBIA RIVER FISH ENHANCEMENT GROUP DESIGNING IMPROVEMENTS TO HARDY CREEK

GRANT AWARDED: \$47,306

The Lower Columbia River Fish Enhancement Group will use this grant to develop restoration designs to allow salmon access to two, spring-fed streams and investigate groundwater levels for future chum spawning areas. The enhancement group will focus on addressing barriers to fish passage in Domestic Springs and Grenia Creek, tributaries to Hardy Creek. Lower Columbia River chum and coho salmon, both of which are listed as threatened with extinction under the federal Endangered Species Act, spawn in the lower reaches of Hardy Creek adjacent to these channels. However they are unable to get to the isolated, spring-fed habitat because of water control structures managed by U.S. Fish and Wildlife Service for the benefit of western pond turtle and waterfowl. See [more information](#) about this project. (11-1365)

PROJECTS IN SNOHOMISH COUNTY

\$2,497,397

PEOPLE FOR PUGET SOUND STUDYING THE FEASIBILITY OF UNCOVERING WILLOW CREEK

GRANT AWARDED: \$100,000

People for Puget Sound will use this grant to explore the feasibility of maximizing Chinook salmon rearing habitat in Edmonds marsh by taking Willow Creek out of a pipe and restoring the stream connection to Puget Sound. The organization will document the current topography and hydrology of the marsh complex and scope feasibility of three options for taking the creek out of a pipe and restoring its connection to Puget Sound. This information will help assess maximum size and ecological function for juvenile Chinook rearing habitat. People for Puget Sound will contribute \$52,100 including donated labor from the City of Edmonds and a federal grant from the National Oceanic and Atmospheric Administration. See [more information](#) about this project. (11-1553)

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SKAGIT RIVER SYSTEM COOPERATIVE REMOVING SUIATTLE RIVER RIP-RAP

GRANT AWARDED: \$177,557

The Skagit River System Cooperative will use this grant to remove less than a quarter-mile of rip-rap bank protection on the Suiattle River to improve habitat complexity for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. The rip-rap is on U.S. Forest Service Road 25, about 1 mile upstream from Circle Creek, where the road has been closed to motorized access. Rip-rap bank protection structures damage salmon habitat by reducing habitat complexity, degrading river bank functions and limiting the formation of secondary channels and off-channel habitat in the floodplain. Complex, natural habitat along river channels provides important foraging and resting opportunities for juvenile Chinook salmon. The cooperative will contribute \$31,333 from a federal grant. See [more information](#) about this project. (11-1563)

SNOHOMISH COUNTY INSTALLING WOODY MATERIALS IN THE SOUTH FORK OF THE STILLAGUAMISH RIVER

GRANT AWARDED: \$200,000

Snohomish County will use this grant to place logs and tree root wads in two places in the south fork of the Stillaguamish River to improve habitat for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. The work will be done east of Arlington and north of Granite Falls. Logs and tree root wads will slow the river, creating places for salmon to rest and hide from predators. The grant will pay for final site selection, designs, permitting and construction. Snohomish County will contribute \$36,000 in donations of cash. See [more information](#) about this project. (11-1417)

SNOHOMISH COUNTY RESTORING THE LOWER SKYKOMISH RIVER

GRANT AWARDED: \$144,502

Snohomish County will use this grant to place logs and tree root wads in the Skykomish River and plant 5 acres of trees near Sultan to improve habitat. The projects are in a portion of the reach adjacent to two, large, right-bank side channels, downstream from the confluence of the Sultan and Skykomish Rivers. This project works closely with farmers and results in a win-win for agricultural productivity and salmon viability. The County is proposing this project as a first phase of implementing its reach-scale assessment of the Skykomish River, which runs from Sultan to the just downstream of Monroe. Snohomish County will contribute \$36,125. See [more information](#) about this project. (11-1238)

SNOHOMISH COUNTY RESTORING THE SMITH ISLAND MARSH

GRANT AWARDED: \$750,000

Snohomish County will use this grant to build a setback dike and fill a ditch on Smith Island, restoring natural marsh conditions to about 400 acres in the heart of the Snohomish River estuary near Everett. This is part of a larger restoration project that includes breaching the levee, excavating a tidal channel, installing logs and tree root wads in the water and reshaping and replanting the land. The project will improve conditions for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, and other salmon species

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by increasing access to critical estuarine marsh habitat. The Smith Island project is the largest of four estuarine restoration projects proposed or completed in the lower Snohomish estuary. Snohomish County will contribute \$132,353 in a state grant. See [more information](#) about this project. (11-1273)

SOUND SALMON SOLUTIONS

GRANT AWARDED: \$369,152

ENHANCING MIDDLE PILCHUCK RIVER HABITAT

Sound Salmon Solutions will use this grant to re-establish habitat in the Pilchuck River near Lake Stevens. Sound Salmon Solutions will place logs and tree root wads in the river, remove invasive plants and plant native trees on the riverbank to create buffers on 5 acres and exclude livestock from these buffers along 1 mile of the Pilchuck River. Installing logs and tree root wads slows the river and creates places for salmon to rest and hide from predators. Logs in river systems also increase pool habitat that salmon use for cover and cool water in summer. Removing invasive weeds will improve the diversity of plants along the riverbanks. Planting the riverbanks with trees will provide shade to cool the water as well as attract insects that salmon eat. Excluding livestock will keep the plants in the newly planted area alive. The project will increase habitat for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, as well as chum, coho, pink salmon, steelhead and cutthroat trout. Sound Salmon Solutions will contribute \$84,200 in donations of cash, labor and materials. See [more information](#) about this project. (11-1263)

STILLAGUAMISH TRIBE OF INDIANS

GRANT AWARDED: \$300,000

PLACING LOGJAMS IN THE NORTH FORK OF THE STILLAGUAMISH RIVER

The Stillaguamish Tribe of Indians will use this grant to install five or six logjams in the north fork of the Stillaguamish River west of Darrington. The logjams will slow the river, creating places for salmon to rest, spawn and hide from predators. They also will increase the types of habitat within the river and protect the riverbanks from erosion. The river is home to Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. The tribe will contribute \$75,000. See [more information](#) about this project. (11-1381)

STILLAGUAMISH TRIBE OF INDIANS

GRANT AWARDED: \$206,280

PROTECTING TREE FARM HOLE

The Stillaguamish Tribe of Indians will use this grant to buy 126 acres of floodplain forest on the north fork of the Stillaguamish River, protecting it from logging and development. The tribe also will perform some minor restoration work. The land is outside of Arlington and encompasses more than 1 mile of shoreline on the north fork of the Stillaguamish River and more than a half-mile of side channel. It is a spawning and rearing area for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act, and pink, coho, chum, bull trout and steelhead. The tribe also will replant the former home site. The tribe will contribute \$781,220 from a federal grant and another grant. See [more information](#) about this project. (11-1377)

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STILLY-SNOHOMISH FISHERIES ENHANCEMENT TASK FORCE RESTORING JIM CREEK

GRANT AWARDED: \$249,906

The Stilly-Snohomish Fisheries Enhancement Task Force will use this grant to improve the habitat along a half-mile of Jim Creek near Arlington by removing invasive weeds from 4 acres and replanting, installing nearly a half-mile of fencing to keep livestock out of the creek, removing 150 feet of bank armoring and installing three logjams in the creek. Jim Creek is one of a few tributaries below Granite Falls to provide significant habitat for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. Adding logjams will slow the river, creating places for salmon to rest and hide from predators. Logjams also increase the types of habitat. Trees planted along the creek bank will shade the water, cooling temperatures, and attract insects, which are eaten by salmon. The task force will contribute \$50,529 from a federal grant and donations of labor and materials. See [more information](#) about this project. (11-1410)

For more projects in Snohomish County, look under the "Multiple Counties" headline at the end of this document.

PROJECTS IN THURSTON COUNTY

\$473,714

CAPITOL LAND TRUST PROTECTING AND RESTORING SPURGEON CREEK

GRANT AWARDED: \$160,714

The Capitol Land Trust will use this grant to conserve more than a quarter-mile of Spurgeon Creek shoreline and uplands and replace a pair of failing culverts that are blocking fish passage. The land trust will purchase a permanent, voluntary land preservation agreement known as a conservation easement on 14 acres. It also will replace a failing and partially blocking pair of culverts in Spurgeon Creek that are under the driveway to the property. Spurgeon Creek is a cold water tributary of the Deschutes River in Thurston County that provides important habitat for salmonids. The site is on Spurgeon Creek, 1 mile up from the confluence with the Deschutes River. This unique site contains intact and restored creek bank buffers as well as wetlands, a meadow, a forested pond and upland forest. The primary objective of the project is to permanently protect this section of the creek to provide critical habitat for salmon species in an area that is impacted heavily by agriculture and development, and to prevent the failing culverts from becoming a complete fish barrier. The creek is home to coho, steelhead, Chinook, coastal cutthroat trout and Olympic mudminnow. The secondary objective of the project is to build on the efforts of community groups and volunteers who have replanted the creek banks on this property. The land trust will contribute \$28,361 from a federal grant and donated property interest. See [more information](#) about this project. (11-1556)

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CAPITOL LAND TRUST

GRANT AWARDED: \$136,000

PROTECTING THE DESCHUTES RIVER

The Capitol Land Trust will use this grant to buy 29 acres southeast of the Olympia Airport to conserve more than a quarter-mile of the Deschutes River. The property is undeveloped, with a wide and diverse riparian buffer with active side channels. The remaining forested uplands are in the Deschutes River floodplain. The river is home to coho, steelhead and cutthroat trout. The project would expand the Capitol Land Trust's adjacent property, the Stewart Preserve, which already conserves 45 acres and nearly three-quarter mile of Deschutes River shoreline. The land trust will contribute \$24,000 in donations of cash. See [more information](#) about this project. (11-1562)

PORT OF OLYMPIA

GRANT AWARDED: \$60,000

RESTORING MISSION CREEK ESTUARY

The Port of Olympia will use this grant to remove a road embankment, culvert, beach armor, invading plants and some sediment to reclaim the small Mission Creek estuary. Mission Creek flows through Priest Point Park and discharges into Budd Inlet and Puget Sound near Olympia. An earthen road embankment was built in the early 20th century to provide vehicle access across the mouth of Mission Creek. An overflow weir box and culvert were installed to manage freshwater discharge and limit saltwater inundation into the area upstream of the road embankment. The existing road embankment and culvert completely block fish passage and estuarine function. Removing these obstacles will benefit Chinook, coho, chum, cutthroat and steelhead. This project has been under development for nearly a decade and brings together a broad coalition of partners. The Port of Olympia will contribute \$120,000 in cash. See [more information](#) about this project. (11-1526)

WILD FISH CONSERVANCY

GRANT AWARDED: \$117,000

ASSESSING WATER TYPE IN THE CHEHALIS RIVER BASIN

The Wild Fish Conservancy will use this grant to document and correct water type classifications in about 55 miles of at-risk streams in Beaver Creek and in the Chehalis River watershed. Errors in Washington State water type maps result in incorrect labeling of up to 60 percent of the fish-bearing streams. The Wild Fish Conservancy systematically has documented that streams mapped incorrectly or not at all limit local and state government's ability to protect habitat on private lands. The Wild Fish Conservancy will map previously unmapped or incorrectly mapped water courses to ensure informed and responsible watershed management. The conservancy will incorporate assessment results in a Web-based, interactive map available to planners, landowners and resource managers (see www.wildfishconservancy.org). The conservancy also will submit assessment results to the Washington Department of Natural Resources for correction of state regulatory water type maps. In addition to corrected water type maps, this assessment will benefit salmon by generating detailed fish distribution data and prioritizing restoration opportunities on lesser-known tributaries of the Chehalis River. The conservancy will contribute \$20,650 from a private grant and donations of equipment and materials. See [more information](#) about this project. (11-1258)

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PROJECTS IN WAHAKIYAKUM COUNTY

\$361,505

LOWER COLUMBIA FISH ENHANCEMENT GROUP RESTORING THE GRAYS RIVER

GRANT AWARDED: \$226,180

The Lower Columbia Fish Enhancement Group will use this grant to install wood structures on Columbia Land Trust property in the Grays River to reduce water velocity, create habitat diversity and collect sediments against the toe of eroding stream banks. The structures will create pools, collect flood debris and stabilize the river channel. Additional structures will be placed along more than a half-mile of shoreline to protect important chum salmon habitat in nearby Crazy Johnson Creek. The enhancement group also will remove non-native plants and replant the area with native trees and shrubs. The Grays River is home to Chinook, chum and coho, all of which are listed as threatened with extinction under the federal Endangered Species Act. Winter steelhead also will benefit from the project. The enhancement group and Columbia Land Trust will contribute \$76,300 in donations of equipment, labor and materials. See [more information](#) about this project. (11-1380)

WAHAKIYAKUM CONSERVATION DISTRICT ENHANCING SALMON HABITAT IN THE ELOCHOMAN RIVER

GRANT AWARDED: \$135,325

The Wahkiakum Conservation District will use this grant to place logs and tree root wads in the Elochoman River. The logs and root wads increase salmon habitat quantity and diversity by slowing the river and creating places for salmon to rest and hide from predators. They also help stabilize the channel by reducing erosion and protecting young trees on the riverbanks. The work will improve salmon habitat along more than a half-mile of the river and create a streamside forest on 4.5 acres. The Elochoman River is home to chum, coho and Chinook, all of which are listed as threatened with extinction under the federal Endangered Species Act. Winter steelhead also will benefit from the project. The conservation district will contribute \$39,500 from federal and local grants and donations of equipment and labor. See [more information](#) about this project. (11-1310)

PROJECTS IN WALLA WALLA COUNTY

\$1,131,220

TRI-STATE STEELHEADERS DESIGNING IMPROVEMENTS TO MILL CREEK FISH PASSAGE

GRANT AWARDED: \$427,377

The Tri-State Steelheaders will use this grant to complete final designs and construct fish passage improvements in a 285-foot-long section of what is known as reach type 6 on Mill Creek, near Walla Walla. In the 1940s, the U.S. Army Corps of Engineers built a concrete flume to house 2 miles of Mill Creek to reduce flooding in Walla Walla. Summer steelhead and bull trout, which are listed as threatened with extinction under the federal Endangered Species Act, have trouble passing through the flume. Proposed passage improvements include modification of

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baffles to help fish get through, addition of resting pools to help tired fish make the journey and addition of surface roughness to slow the water during high flow. This will be the third of several projects to improve passage to high quality habitat in the upper Mill Creek watershed. Tri-State Steelheaders will contribute \$75,500 in donations of cash. See [more information](#) about this project. (11-1587)

TRI-STATE STEELHEADERS

GRANT AWARDED: \$476,234

REMOVING THE BRIDGE TO BRIDGE LEVEE

The Tri-State Steelheaders will use this grant to begin restoration of the upper one-third of a Walla Walla River reach near Lowden. The group will remove a half-mile of levee on property owned by the Washington Department of Fish and Wildlife below McDonald Bridge. The group also will place logs and tree root wads in the river. The logs will slow the river, creating pools and other types of habitat. The work will create about 100 feet of off-channel habitat. Ultimately, the project will reduce confinement of the river, floodplain isolation and degraded habitat in the river and along its banks. The Walla Walla River is used by re-introduced spring Chinook salmon. It also is used by summer steelhead and bull trout, all of which are listed as threatened with the risk of extinction on the federal Endangered Species Act as well as sculpin, leopard dace and river lamprey. The Tri-State Steelheaders will contribute \$84,100. See [more information](#) about this project. (11-1588)

WALLA WALLA COUNTY CONSERVATION DISTRICT

GRANT AWARDED: \$94,297

REDESIGNING THE JONES DITCH DIVERSION ENTRANCE

The Walla Walla County Conservation District will use this grant to design a new diversion entrance on Mill Creek and exit to Yellowhawk Creek to allow water in Jones ditch year-round. The ditch will become a 1.4-mile-long side channel, providing rearing habitat for salmon species entering from either creek. Fish screens for three small pumping stations on the ditch will be designed to prevent fish from getting pulled into the pumps. When not used for irrigation, the ditch currently drains, stranding fish. The improvements will keep water in the ditch all year. A measuring device will monitor flow from Mill Creek and pump station diversions will be metered. The creeks are home to steelhead and bull trout, which are listed as threatened with extinction on the federal Endangered Species Act. See [more information](#) about this project. (11-1583)

WALLA WALLA COUNTY CONSERVATION DISTRICT

GRANT AWARDED: \$133,312

RESTORING MCCAW REACH

The Walla Walla County Conservation District will use this grant to finalize designs and begin restoration on nearly a half-mile of the McCaw reach of the Touchet River near Waitsburg. The reach is a major spawning area for mid-Columbia River steelhead, which are listed as threatened with extinction on the federal Endangered Species Act. The goal is to design improvements that will increase the overall river channel complexity by increasing development of gravel bars, pools and overall stream length. The existing channel is reduced in complexity, has degraded riverbank vegetation and is incised in some areas. This project will place logs and tree root wads in the main channel and side channels to encourage the activation of side channels, increase bar

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deposition and develop pools. The completion of this project will provide mid Columbia River steelhead rearing habitat, bull trout wintering habitat and Chinook salmon passage and holding habitat. The conservation district will contribute \$23,526 in donations of materials. See [more information](#) about this project. (11-1580)

PROJECTS IN WHATCOM COUNTY

\$1,500,119

NOOKSACK INDIAN TRIBE

GRANT AWARDED: \$573,222

RESTORING THE NORTH FORK OF THE NOOKSACK RIVER'S WILDCAT REACH

The Nooksack Indian Tribe will use this grant to will build 20 engineered logjams in the north fork of the Nooksack River to stabilize the channel and protect maturing forested islands in the main channel. This project is the second phase of a larger project to restore the north fork throughout the Wildcat reach. Protecting and encouraging growth of forested channel islands ultimately will increase spawning-to-incubation success for Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. The tribe will contribute \$101,157 from a federal grant. See [more information](#) about this project. (11-1572)

NOOKSACK INDIAN TRIBE

GRANT AWARDED: \$58,519

RESTORING THE SOUTH FORK OF THE NOOKSACK RIVER'S HARDCRABBLE REACH

The Nooksack Indian Tribe will use this grant to build an engineered logjam in the south fork of the Nooksack River at the Hardscrabble Creek confluence. The logjam will slow the river and create scour pools, where cool water enters the south fork, creating areas where salmon can hide and rest in cool water during the summer. Other projects in the Acme-Confluence reach have placed or will place clusters of logjams at or around river miles 1.2, 3.8, 6.5. This project, at river mile 5.1, will reduce spacing to an average of 1.4 miles between projects, thereby improving the extent and connectivity of important summer holding and rearing habitat in the lower south fork. The south fork is home to Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. The tribe will contribute \$10,327 from a federal grant. See [more information](#) about this project. (11-1566)

NOOKSACK INDIAN TRIBE

GRANT AWARDED: \$493,378

RESTORING THE SOUTH FORK OF THE NOOKSACK RIVER'S HUTCHINSON REACH

The Nooksack Indian Tribe will use this grant to construct 11 engineered logjams and stabilize five existing logjams in the south fork of the Nooksack River. Logjams will create important salmon habitat by increasing the number and depth of pools for holding and rearing and the number of pools for spawning, as well as increasing habitat diversity, channel length and floodplain connectivity. The south fork is home to Chinook salmon, which are listed as threatened with extinction under the federal Endangered Species Act. The tribe will contribute \$87,067 from a federal grant. See [more information](#) about this project. (11-1539)

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WHATCOM LAND TRUST

GRANT AWARDED: \$375,000

PROTECTING THE NORTH FORK OF THE NOOKSACK RIVER

Whatcom Land Trust will use this grant to buy 60 acres adjacent to already conserved salmon habitat to protect critical spawning, rearing and refugia habitats in the north fork of the Nooksack River. This project will build upon a decade of success in restoring and protecting critical habitat for spring Chinook, which are listed as threatened with extinction under the federal Endangered Species Act. It adds to an evolving salmon conservation corridor and will secure an additional two priority properties with significant frontage to allow natural processes to sustain habitat diversity, key habitat quantity and channel stability for Chinook, winter steelhead, bull trout and other salmon species. The land trust will contribute \$66,200 in donations of cash. See [more information](#) about this project. (11-1430)

PROJECTS IN YAKIMA COUNTY

\$508,887

MID-COLUMBIA FISHERIES ENHANCEMENT GROUP

GRANT AWARDED: \$90,754

RESTORING LOWER COWICHE CREEK

The Mid-Columbia Fisheries Enhancement Group will use this grant to improve floodplain habitat on Cowiche Creek by setting back a dike, removing concrete and replanting native vegetation. Lower Cowiche Creek supports spawning and rearing habitat for middle Columbia River steelhead, which are listed as threatened with extinction under the federal Endangered Species Act. Cowiche Creek is impaired by elevated water temperatures, high nutrient loads and removal of native vegetation in many areas. The creek is constrained by dikes, and the banks have been reinforced artificially with concrete and other non-native materials. The enhancement group will set back a 500-foot-long dike, remove concrete from the channel and banks along another 500 feet, reshape and replant the creek banks, place wood to create more diverse habitat in the creek and reconnect floodplains and wetlands. The enhancement group will work with landowners and the Cowiche Canyon Conservancy to ensure that stream restoration accommodates the future alignment of the William O. Douglas Trail. The group also will work with other landowners in the reach to identify two more properties where restoration could occur in the future. The enhancement group will contribute \$16,037 in federal money, staff labor and donated labor. See [more information](#) about this project. (11-1320)

ROBERT INOUE

GRANT AWARDED: \$37,733

RESTORING RATTLESNAKE CREEK SIDE CHANNEL

Robert Inouye will use this grant to restore a Rattlesnake Creek side channel by allowing unscreened creek water to flow into the side channel, opening up the entire reach of this prime rearing habitat for the creek's steelhead, coho, Chinook and bull trout. The work will keep fish from reaching the irrigation ditch and reduce flow interruption problems. Rattlesnake Creek begins in the William O. Douglas Wilderness and flows unchecked to the Naches River. Each spring, the creek runs fast and cold, but in summer it slows down and shrinks between rocky

Salmon Recovery

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banks. By September, the lower Rattlesnake Creek water is so warm it can kill salmon. Nearby, the landowner has been restoring a complex, three-quarter mile long side channel. It offers excellent off-creek habitat for young fish. It winds through forest and meadows with mature riverbank vegetation. The moderate flows are cooled by the shade of tall cottonwood, Douglas fir and ponderosa pine. The side channel offers a mix of pools, falls, riffles and backwaters with woody materials, gravels, boulders and sandy stretches. This refuge system recharges the groundwater and can help juvenile fish survive. It hosts salmon, sculpin, crayfish and aquatic insects, and is visited by dippers, ducks, raccoon, deer and elk. Beavers helped by felling dozens of cottonwoods and building a string of ponds. Unfortunately, the side channel suffers from intermittent winter flows and has limited fish access because it gets its water from a screened irrigation ditch. Both of those problems will be addressed in this project. Mr. Inouye and other project supporters will contribute \$9,900 in labor and materials. See [more information](#) about this project. (11-1373)

YAKIMA COUNTY

GRANT AWARDED: \$105,000

DESIGNING LOWER COWICHE CREEK RESTORATION

Yakima County Public Services will use this grant to plan and design the stream restoration, levee removal and stream relocation project on lower Cowiche Creek at the Naches River confluence. Yakima County and the City of Yakima are planning to relocate the Naches River Fruitvale Diversion and related structures upstream to the Nelson Dam. This action will reduce the need for the existing Cowiche Creek levee system, which was created to redirect Cowiche Creek onto an unnatural floodplain to minimize risk to landowners and irrigation diversion structures. Yakima County is working with a landowner to create a conservation easement through the historical floodplain for this stream relocation project. The creek is prime habitat for steelhead, which are listed as threatened with extinction under the federal Endangered Species Act, and spring Chinook, bull trout and coho. See [more information](#) about this project. (11-1600)

YAKIMA

GRANT AWARDED: \$275,400

RESTORING THE CITY OF YAKIMA'S FLOODPLAIN ECOSYSTEM

The City of Yakima will use this grant to restore a floodplain and off-channel along the Yakima River. The reach once hosted thousands of acres of naturally functioning floodplain that provided diverse habitat for fish and a high level of ecological resiliency that benefited multiple species. The City will reshape a shallow gravel-pit pond in the floodplain, restore the pond's outlet to the Yakima River, replant the area and replace a 40-foot culvert with a structure that will allow for unrestricted movement of fish. This project is the first phase of a three-phase project that will lead to a massive levy setback that will restore 200-300 acres of habitat in the Gap to Gap reach on property owned by the City, the Greenway, Yakama Nation and Washington Department of Transportation. The project will benefit steelhead, coho and Chinook salmon, lamprey and resident fish. Yakima will contribute \$157,000 in cash and a grant. See [more information](#) about this project. (11-1565)

For more projects in Yakima County, look under the "Multiple Counties" headline at the end of this document.

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PROJECTS IN MULTIPLE COUNTIES

\$1,146,853

■ ASOTIN AND GARFIELD COUNTIES

ASOTIN COUNTY PUBLIC UTILITY DISTRICT ASSESSING ALPOWA CREEK HABITAT

GRANT AWARDED: \$69,300

The Asotin County Public Utility District will use this grant to develop a restoration and protection plan for 13 miles of stream reaches in the Alpowia Creek watershed. Alpowia Creek is a tributary to the Snake River, downstream from the confluence of the Clearwater River below Clarkston. Alpowia has narrow floodplains with very steep, uninhabitable valley walls making creek bank and floodplain protection and connection important components to protect summer steelhead and fall Chinook salmon, both of which are listed as threatened with extinction on the federal Endangered Species Act. This project will assess landowner interest in barrier and habitat surveys and conservation easements; conduct barrier and habitat surveys where permission is granted; develop a map and prioritized list of potential barrier corrections, habitat enhancement projects, and conservation easements; and develop a conceptual design for at least one priority restoration project. The utility district will contribute \$12,234 in staff labor. See [more information](#) about this project. (11-1576)

■ JEFFERSON, KITSAP AND MASON COUNTIES

HOOD CANAL SALMON ENHANCEMENT GROUP CONTROLLING INVASIVE KNOTWEED

GRANT AWARDED: \$229,752

The Hood Canal Salmon Enhancement Group will use this grant to continue its work to control the invasive knotweed plant on six river systems throughout Hood Canal. Crews will survey the riverbanks for knotweed and control it when found. Knotweed is not native to Washington and can quickly smother native plants, destroying riverbank plants essential for salmon recovery. The enhancement group will continue its assessment and treatment of knotweed and planting riverbanks with native trees and shrubs along the Dewatto, Big and Little Quilcene, Tahuya and Union Rivers; continue assessment and knotweed control efforts on the Dosewallips River; and begin assessment and control efforts along the Duckabush River and Big Anderson Creek. The enhancement group also will continue to inform the public about the impacts knotweed has on salmon habitat. The enhancement group will contribute \$45,000 from federal and state grants and donations of labor. See [more information](#) about this project. (11-1363)

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■ JEFFERSON AND MASON COUNTIES

JEFFERSON LAND TRUST

GRANT AWARDED: \$147,000

PROTECTING LOWER CHIMACUM CREEK

The Jefferson Land Trust will use this grant to buy 5 acres in the Chimacum Creek estuary, just north of Irondale and Port Hadlock. The estuary is one of the least damaged estuaries in the Strait of Juan de Fuca and Hood Canal. Nestled in a deep, forested ravine, lower Chimacum Creek runs through the heart of Port Hadlock's pending urban growth area of Jefferson County. The existing forest corridor links together more than 1 mile of core habitat area for summer chum salmon and steelhead trout, both of which are listed as threatened with extinction under the federal Endangered Species Act, as well as coho salmon. The purchase will protect permanently the channel migration zone, the forested creek bank buffer and the streambed for spawning summer chum and rearing habitat for coho salmon, steelhead and cutthroat. Chumsortium partners plan to enhance the habitat by planting the creek banks and removing roads. The land trust will contribute \$26,200 in conservation futures⁵ and donations of materials. See [more information](#) about this project. (11-1356)

■ KITSAP AND MASON COUNTIES

WILD FISH CONSERVANCY

GRANT AWARDED: \$97,301

ASSESSING SALMON'S USE OF HOOD CANAL SHORELINES

The Wild Fish Conservancy will use this grant to fund a pilot year of work examining juvenile salmon species habitat use patterns along Hood Canal shorelines. The goal is to refine the salmon recovery plans and process for selecting projects to improve Hood Canal summer chum and Chinook salmon, both of which are listed as threatened with extinction under the federal Endangered Species Act. The first year's work will focus on compiling existing data and literature to develop a study plan, developing new project partners and preliminary surveying at some sites. The conservancy estimates it will need 3-5 years worth of data to develop a complete picture of near-shore fish use in Hood Canal. The review process will determine if this project will receive continued funding in future years. The conservancy will contribute \$15,920 in donations of equipment and labor. See [more information](#) about this project. (11-1355)

⁵ Conservation futures are a portion of property taxes used by local governments to buy land or development rights to protect natural areas, forests, wetlands, and farms.

Salmon Recovery

2011 GRANTS AWARDED



■ KITTITAS AND YAKIMA COUNTIES

YAKAMA NATION

GRANT AWARDED: \$98,500

RESTORING LOWER REECER CREEK HABITAT ALONG POTT ROAD

The Yakama Nation will use this grant to restore the banks of lower Reecer Creek. Due to a long history of agricultural use followed by five years of non-use, weeds have overtaken most of the property along Pott Road. The tribe will replant the creek banks on 30 acres, enhance spawning substrate in about 100 yards of stream and install logs and tree root wads in the creek to increase the different types of habitat in the creek. The tribe will contribute \$18,500 in donations of equipment and labor. See [more information](#) about this project. (11-1595)

■ SKAGIT AND SNOHOMISH COUNTIES

SKAGIT RIVER SYSTEM COOPERATIVE

GRANT AWARDED: \$505,000

EXTENDING THE DOWNEY CREEK BRIDGE TO RECONNECT A SIDE CHANNEL

The Skagit River System Cooperative will use this grant to lengthen the Suiattle River Road bridge over Downey Creek to allow the creek to reconnect with its side channel as it enters the Suiattle River. The cooperative will remove a road embankment and add three, 70-foot-long sections to an existing bridge for a total span length of 325 feet. The longer bridge will allow the creek to re-connect to an existing side channel, enable the creek to return to a more natural process of channel migration and side channel formation and improve connectivity between Downey Creek and the Suiattle River floodplain. This will improve Chinook salmon habitat. Downey Creek is a highly productive tributary to the Suiattle River that in recent years has provided up to 40 percent of the spring Chinook spawning in the Suiattle River basin. Due to high natural turbidity only very limited spawning occurs in the main Suiattle River, so tributaries such as Downey Creek provide unique and important habitat. The cooperative will contribute \$478,000 in donations of cash. See [more information](#) about this project. (11-1521)