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Gov. Gary Locke Announces \$26.7 Million in Grants to Protect and Restore Salmon

OLYMPIA – Dec. 9, 2004 – Gov. Gary Locke today announced the award of \$26.7 million in grants to local communities across the state to protect and restore salmon habitat in Washington state.

The grants, ranging from \$26,000 to more than \$1 million, were given to organizations within 27 counties for work ranging from planting trees along streams to cool the water for salmon, to replacing crushed culverts that prevent salmon from migrating, to changing stream channels to create better places for salmon to spawn and grow.

Salmon, an icon of the Northwest, were put on the federal list of endangered species in 1991. By then, the number of salmon had fallen to only 40 percent of historic levels in Washington, Oregon, Idaho and California. By 1999, almost three-fourths of Washington was affected by Endangered Species Act listings of salmon and bull trout. Those listings set off a series of activities including the formation of the Salmon Recovery Funding Board to oversee the investment of state and federal funds for salmon recovery. Since 2000, the board has awarded \$214.7 million in grants for 591 projects.

“These grants are an important part of helping restore salmon,” Locke said. “Washington’s approach to funding these projects is a national model. We asked local groups to set the priorities within their communities and develop projects. These projects have involved thousands of citizens statewide – from school children to city mayors. It’s a tremendous grassroots effort.”

This year, there were 188 projects requesting a total of \$47.4 million, nearly double the funding available. The Salmon Recovery Funding Board approved projects for funding on Dec. 3. The grant awards are as follows:

Chelan	\$994,591	Kitsap	\$905,182	San Juan	\$133,829
Clallam	\$1.48 million	Kittitas	\$923,860	Skagit	\$1.59 million
Clark	\$199,999	Klickitat	\$829,256	Skamania	\$459,644
Cowlitz	\$545,360	Lewis	\$380,149	Snohomish	\$1.57 million
Garfield	\$51,000	Mason	\$1.7 million	Thurston	\$1.37 million
Grays Harbor	\$920,607	Okanogan	\$1.22 million	Wahkiakum	\$269,485
Island	\$221,127	Pacific	\$1.3 million	Walla Walla	\$558,898
Jefferson	\$1.56 million	Pend Oreille	\$924,442	Whatcom	\$1.15 million
King	\$3.66 million	Pierce	\$1.5 million	Yakima	\$323,698

Projects were proposed by a wide range of watershed interest groups including local governments, nonprofit organizations and tribes. Local technical advisors use their scientific understanding of the watershed to evaluate projects and then local citizen groups used those recommendations to make a final list to submit to the board.

This year, local communities were asked to develop strategic plans for salmon recovery in their watersheds and to make sure the projects they submitted for funding addressed those strategies. A statewide panel of experts then reviewed their projects lists.

“Local communities have demonstrated steady progress in the quality of the projects they submit for funding,” said William Ruckelshaus, board chairman. “We asked them to go a step further this year and develop strategic plans that will be a road map for them and for us. That way we know the projects are the most effective and we are addressing the highest priority needs for their areas. Collectively, we are doing a better job of funding the best of best.”

The Salmon Recovery Funding Board awarded grants for 103 individual projects, including 53 projects for habitat improvements such as planting trees along streams for shade and removing fish passage barriers. The board provided grants for 16 projects that focus on the purchase of key salmon habitat, 26 projects for studies and plans to help identify priority activities for the future and another eight projects that combine habitat acquisition, improvements or studies.

The Salmon Recovery Funding Board was established in July 1999 by the state Legislature to help oversee the investment of state and federal funds for salmon recovery. Citizen members appointed by the governor are: Ruckelshaus; Frank L. “Larry” Cassidy, Vancouver; Brenda McMurray, Yakima; James Peters, Olympia; and Steve Tharinger, Clallam County. Five state agency directors or elected leaders also serve as members (Conservation Commission, Department of Ecology, Department of Fish and Wildlife, Commission of Public Lands and Department of Transportation).

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Editor’s Note: For descriptions of the projects in each county, visit www.iac.wa.gov/.



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Chelan County

\$994,591

Slowing and cooling the Entiat River to help Salmon

\$102,555

The Chelan County Conservation District will use this grant to begin the restoration of 1.2 miles of the Entiat River reach between the Entiat Fire Station and extending upstream to the Dinkleman Cyn Bridge. The grant will pay for the first phase of work, which will include putting in plants along 1,000 feet of the river to cool the water, improve the condition of the banks and provide the cover and nutrients needed by salmon. Work also will include placing large rocks or wood along 700 feet of a nearby irrigation ditch to create a place where young salmon can be reared, and installing two structures in the river to both direct the water toward the newly created rearing habitat and to restore resting pools in the lowest portion of the reach. A fish passage structure also will be added to the ditch outfall to provide fish access to the habitat in the ditch. This project is the highest priority restoration project in the Entiat watershed. The river has been altered in the past by logging, dams and development. The work will benefit Chinook salmon, which are listed as endangered of extinction by the federal Endangered Species Act, as well as steelhead and coho salmon. The conservation district will match this grant by providing \$20,451 from another state grant and donated materials.

(04-1503)

Creating salmon habitat on the Wenatchee River

\$146,000

The Chelan County Public Utilities District will use this grant to create high quality, year-round rearing habitat, predator escape cover and resting areas near Dryden for Chinook and steelhead salmon, which are listed as endangered of extinction under the federal Endangered Species Act, as well as other salmon. The district will create off-channel habitat by breaching the dike and adding habitat structures such as rock, root wads and logs. The project, on 8.8 acres of flood plain and shoreline, is off Depot Road in Dryden. The Wenatchee River salmon habitat has been damaged by development. The Wenatchee River is critically important to the recovery of salmon and the overall restoration of the watershed. The Chelan County Public Utilities District will match this grant with \$34,000.

(04-1461)

Creating a plan for increasing flows necessary for salmon

\$170,000

Chelan County will use this grant to determine appropriate water flows for salmon, bull trout and steelhead in the lower Wenatchee River and several of its tributaries, including Peshastin Creek, Nason Creek, Chiwawa River, Chumstick Creek and Mission Creek. The study will help the county determine what needs to be done to improve habitat for salmon for inclusion in the final Wenatchee Watershed Plan. The study will help identify where the river flows need to be protected and where they need to be restored through methods such as conservation and lease or purchase of water rights. Chinook and steelhead salmon both have been listed as endangered of extinction under the federal Endangered Species Act. The county will match this grant with another \$30,000 state grant.

(04-1700)

Improving fish screens in Monitor

\$257,044

The Jones-Shotwell Ditch Board will use this grant to modernize its diversion facilities 1 mile west of Monitor on the Wenatchee River. Modernizing the facilities will improve the ability of salmon threatened and endangered with extinction to get to habitat. The existing diversion, which is a structure that diverts water from the Wenatchee River into irrigation channels, consists of a rock dam, a 600-foot-long, man-made diversion channel and an outdated screening device. The district plans to replace the rock dam with a permanent rock structure and to screen the diversion's pumps so that young salmon aren't trapped in the system. The district also will remove some of the concrete structures in the diversion channel and add habitat elements to



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

eliminate the need to excavate the channel. The outdated screening device is a barrier to adult salmon attempting to enter the diversion channel from downstream. Building passage over the structure will allow the salmon to enter the diversion channel. The district will match this grant with \$46,047 in donated labor. (04-1508)

Removing salmon barriers **\$70,000**

Chelan County will use this grant to build a fish passage structure at the Peshastin Irrigation District diversion structure on lower Peshastin Creek, about 4 miles south of the intersection of U.S. highways 2 and 97. The county will build a roughened channel by placing boulders in the stream creating a way for the fish to ascend the river. The county also will install a fish screen to prevent any fish from entering the irrigation water at the Peshastin Dam. Providing fish passage will allow steelhead, bull trout and spring Chinook salmon to get to spawning and rearing habitat. The county will match this grant with \$185,000 in labor and a federal grant. (04-1509)

Studying the ability to create habitat for salmon on the Lower Wenatchee River **\$82,450**

Chelan County will use this grant to complete a hydrogeomorphic feasibility study to determine a design for off-channel habitat in the lower Wenatchee River, near Leavenworth, for spring Chinook and summer steelhead trout, both of which are endangered of extinction. Within the lower Wenatchee River, there is a lack of off-channel habitat, which young salmon use to rest and hide from predators. Creating off-channel habitat is the most feasible tool for increasing the availability of rearing habitat for young Chinook and steelhead. Chelan County will match this grant with a \$14,550 state grant. (04-1517)

Studying the ability to create off-channel habitat for salmon **\$82,450**

Chelan County will use this grant to complete a hydrogeomorphic feasibility study to determine a design for off-channel habitat in the lower Wenatchee River, east of Dryden, for spring Chinook and summer steelhead trout. Within the lower Wenatchee River, there is a lack of off-channel habitat, which young salmon use to rest and hide from predators. Creating off-channel habitat is the most feasible tool for increasing the availability of rearing habitat for young Chinook and steelhead. Chelan County will match this grant with a \$14,550 state grant. (04-1538)

Restoring Beebe Springs **\$84,092**

The Lake Chelan Sportsman's Association will use this grant to design and estimate costs for construction of a new floodplain and meandering channel for Beebe Creek, a small tributary to the Columbia River near Chelan Falls. Aside from the blackberries, plants are absent along most of the river, as is woody debris, both of which create habitat for salmon. Despite its degraded state, the river is home to steelhead, coho, spring and summer Chinook and bull trout. The grant will pay for the costs of investigating sites to select the best location and configuration for the stream, determine fish production potential and prepare engineering designs and site restoration plans for the new floodplain and meandering channel. The work will be done on the west bank of the Columbia River immediately north of the Beebe Bridge. The design produced with this grant will be used to build a complex channel, at least four times longer than the existing channel, increasing the quantity and quality of salmon spawning and rearing habitat. The sportsman's association will match this grant with \$14,840 in donated labor. (04-1701)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Clallam County

\$1,475,725

Placing logjams in the Dungeness River to help salmon

\$729,065

The Jamestown S'Klallam Tribe will use this grant to place 11 large logjams in the Railroad Bridge reach of the Dungeness River, immediately downstream of U.S. Highway 101's crossing of the Dungeness River near Railroad Bridge Park. The logjams, along with previously placed jams and a few natural jams, will create rearing pools and places where salmon can rest during high flows. The tribe also will plant black cottonwood along the shores. The tribe will match this grant with \$185,100 in donated labor and a federal grant.

(04-1589)

Enclosing ditches to save and clean water for salmon

\$501,160

The Agnew Irrigation District will use this grant to enclose five open irrigation ditches southwest of Sequim in pipes to conserve water and improve habitat in the Dungeness River. Enclosing the ditches eliminates leakage and thus means less water must be diverted from the river for irrigation. A secondary benefit of the project is to improve water quality by eliminating the ability of animal waste to enter the irrigation system at these ditches. The ditches tail into Matriotti Creek, and ultimately Dungeness River and Bay. Cleaner water will benefit all salmon that use the river, including the three species that are threatened with extinction – spring and summer Chinook, summer chum and bull trout. This project is part of a larger community effort toward salmon recovery and watershed restoration. The Agnew Irrigation District will match this grant with \$88,440 in equipment use and labor.

(04-1663)

Studying Morse Creek for salmon restoration

\$160,500

The North Olympic Salmon Coalition will use this grant to study options for restoring salmon habitat in Morse Creek and its estuary. The creek, which is on the east edge of Port Angeles, is so degraded that there are very few areas for salmon spawning and rearing. The strategy for the area calls for development of a watershed-scale plan to restore the past productivity of eight salmon species that use this creek. In the first phase, the Morse Creek's floodplain wetland area was purchased. This grant will pay for the second phase, which calls for engineering, hydraulic and ecological analysis to provide a long-term vision for restoration of the creek and estuary and engineering plans for short- and long-term projects. The group also wants to analyze the impacts of and to Highway 101, residential communities and the estuary by any restoration projects. The North Olympic Salmon Coalition will match this grant with \$31,000 in cash and donated labor.

(04-1590)

Studying the Clallam River to improve salmon habitat

\$85,000

Clallam County will use this grant to conduct a watershed-scale habitat assessment of the Clallam River and to develop a list of projects to improve salmon habitat. The work will be guided by a restoration work group, modeled on the Dungeness River Restoration Workgroup. The work group will include technical representatives from the project sponsors, as well as local citizens from Clallam Bay and the watershed. The Clallam River flows through the community of Clallam Bay and has been under intense scrutiny recently. Rapid and significant changes in the location of the river mouth threaten state and county park infrastructure. The periodic closure of the river mouth during low flows has been identified as a potential barrier to salmon migration, and the water has been deemed too warm for salmon. Despite these conditions, the Clallam River remains a viable salmon stream, with the potential for greater production. The county will match this grant with \$24,000 in donated labor.

(04-1537)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Clark County \$199,999

Restoring the Lower Washougal River \$199,999

The Lower Columbia Regional Fisheries Enhancement Group will use this grant to begin restoring the degraded floodplain of the lower Washougal River in Camas. The first phase of the project has three primary objectives: 1) Construct two swallow water channels just downstream of the old gravel quarries, allowing natural watershed processes to eventually fill the holes in the floodplain created by mining; 2) Place large woody debris and boulders into the river and abandoned quarries to create places for salmon rearing; and 3) Rehabilitate three abandoned gravel quarries as 10 acres of rearing habitat. The project will directly benefit chum and Chinook salmon, which are listed as threatened with extinction. The low cost of this project is made possible by using the abundant boulders left over from gravel mining that ended in the mid-1970s. The property is owned by the City of Camas and the Georgia-Pacific Company. Project partners include the City of Camas, the Georgia-Pacific Company, Burlington Northern-Santa Fe Railroad, Lower Columbia River Estuary Partnership, Concrete Products, Inc. and several private property owners. The Lower Columbia Regional Fisheries Enhancement Group will match this grant with \$64,601 in cash donations. (04-1573)

Cowlitz County \$545,360

Protecting and restoring Germany Creek \$545,360

The Columbia Land Trust will use this grant to purchase 155 acres of critical shore land and floodplain habitat and to restore the area for spawning, rearing and migrating salmon. The property, which is threatened with sale and development, is along the lower mile of Germany Creek, above State Route 4. The creek is home to steelhead, coho, cutthroat, as well as Chinook and chum salmon, which are threatened with extinction. It is identified as a priority watershed for salmon recovery. While all species in the watershed use the site for migration, spawning and rearing, it is particularly important to chum salmon. The project will rehabilitate about 250 feet of an old creek channel to provide chum salmon spawning habitat, restore 2.5 acres of rearing habitat for a variety of salmon and manage the shoreline to enhance its value for salmon. The Columbia Land Trust will match this grant with \$263,250 from a federal grant and donated labor and materials. (04-1563)

Garfield County \$51,000

Helping landowners with fish screening \$51,000

The Pomeroy Conservation District will use this grant to assess current screen conditions on structures that divert river water for irrigation and then design and install screens that need to be replaced. Funding assistance will be provided to landowners for installing 30 screens on the Pataha, Deadman, Meadow and Alpowa creeks. Regionally, fish barriers and screens are the highest priority for action because of the immediate and long-term benefits to fish. The Alpowa, Deadman, Meadow and Pataha creeks provide spawning and rearing habitat for steelhead, which are threatened with extinction. Without screens, salmon can get trapped and die in structures that divert the river water for irrigation. This is a critical component of the planning efforts in southeast Washington and provides the landowner with incentives. The Pomeroy Conservation District will match this grant with \$9,000 in donated labor and materials. (04-1568)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Grays Harbor County

\$920,607

Replacing fish-blocking culverts on Dekay Road **\$307,546**

The Chehalis Basin Fisheries Task Force will use this grant to replace culverts at three crossings on Dekay Road, north of Hoquiam. The crossings are on Polson Creek, a tributary of the west fork of the Hoquiam River. Two of the culverts will be replaced with bottomless box culverts and the third will be replaced with a concrete bridge, allowing the creek to regain normal functions and provide access to all fish at all life stages. Polson Creek has excellent coho and cutthroat spawning and rearing habitat while the Hoquiam River is used by Chinook, chum and steelhead salmon. If the barrier culverts are removed, young salmon could use the upper portions of this watershed. Combined, the three crossings will open a total of 3 miles on Polson Creek. There are eight culverts that need replacing on this stream; one is already funded for replacement and this grant would take care of another three. The Chehalis Basin Fisheries Task Force will match this grant with \$102,422 in cash and donated materials. (04-1695)

Planting and fencing Vance Creek to help salmon **\$26,031**

Chehalis Basin Fisheries Task Force will use this grant to fence and plant the shoreline of Vance Creek, a tributary of the Chehalis River. The 8.6-mile-long creek supports cutthroat trout and coho salmon as well as lamprey eels, sculpins, mud minnows and other aquatic life. Local landowners have agreed to allow fencing and planting on a 25-foot buffer on both sides of the stream. The Chehalis Basin Education Consortium and teachers from the local school district will provide technical expertise while volunteers and students will replant more than 3 miles of the lower portion of the stream and place 2.37 miles of fence to keep livestock from entering the stream. The plants will provide needed shade and nutrients to spawning and rearing salmon and the fence will prevent animal waste from entering the stream. The fisheries task force will match this grant with \$30,900 in donated labor. (04-1698)

Replacing culverts to help salmon **\$137,030**

The Quinault Indian Nation will use this grant to remove two fish blocking culverts in an unnamed tributary to Cook Creek, which is a tributary of the Quinault River, and replace them with bridges. The project includes removing the culverts and placing two, new, pre-fabricated bridges, installing rock weirs to stabilize the new channel and replanting the area with native plants. Project partners include the Bureau of Indian Affairs and the U.S. Department of Agriculture's Natural Resources Conservation Service. The project will open a combined 1.2 miles of high quality habitat for coho and steelhead salmon and sea-run cutthroat and resident trout. The Quinault Indian Nation will match this grant with \$24,181 in donated labor and materials. (04-1704)

Replacing the July Creek culvert **\$450,000**

The Pacific Coast Salmon Coalition will use this grant to restore fish passage to spawning and rearing habitat on a tributary on the north shore of Lake Quinault. This project involves replacing a 20-year-old, 7-foot circular culvert that is undersized for the flows coming out of the headwaters with a bridge. The culvert outfall drop is four and a half feet and a complete barrier to salmon. Log step weirs and rock will be added to stabilize the channel. The bridge will allow for a natural stream bottom and for the stream to meander within the channel. Overall, replacing the culvert and modifying the log steps will improve the slope of the channel throughout the project area. The Pacific Coast Salmon Coalition will match this grant with \$70,000 in donated labor. (04-1703)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Island County

\$221,127

Restoring a place for salmon to eat, rest, and grow on Arrowhead Lagoon **\$221,127**

The Skagit River System Cooperative, in cooperation with local landowners, will use this grant to restore about 2 acres of habitat in the eastern portion of Arrowhead Lagoon, which is on the north coast of Camano Island. The lagoon is in the path of currents from the Skagit and Stillaguamish rivers and provides refuge, foraging and rearing places for young migrant Chinook, as well as a nursery and habitat for other fish. Work will include removing trail fill, a failing culvert and a short bridge; constructing a new bridge; removing fill along the northern interior shoreline; and planting in selected areas. This restoration proposal is timely because local landowners, represented by the Eagle Tree Estates Property Owners' Association, have requested assistance for a failing culvert in the existing beach access trail. Removal of fill and construction of a spanning bridge will result in significant ecological improvement compared to the proposed culvert replacement alone. The Skagit River System Cooperative will match this grant with a \$39,023 federal grant.

(04-1217)

Jefferson County

\$1,563,771

Buying critical salmon habitat along the Dosewallips River floodplain **\$246,600**

Jefferson County will use this grant to permanently protect critical salmon habitat and floodplain connections by purchasing 93 acres, about 1.5 miles upstream from the mouth of the Dosewallips River, just west of Brinnon. The Dosewallips River contains some of the most important and highest quality salmon habitat in eastern Jefferson County. The purchase will prevent future habitat degradation and will provide an opportunity for endangered salmon to maintain spawning populations in the river. The acquisition includes an entire river reach that has a complex floodplain, substantial woody debris, side channels and tributaries used as spawning and rearing habitat by Puget Sound Chinook salmon and Hood Canal summer chum and coho salmon, all threatened with extinction. In addition, the high quality habitat is used by steelhead, pink salmon and cutthroat trout. Jefferson County will match this grant with \$50,000.

(04-1639)

Restoring the Little Quilcene River Estuary **\$362,000**

The Hood Canal Salmon Enhancement Group will use this grant to restore more natural estuarine function of the Little Quilcene River by removing about 1,500 feet of dike on the north side of the river and 700 feet of sea-dike from the eastern portion of the estuary. This project will begin to reverse the damage done nearly 100 years ago when the river was directed into Quilcene Bay by manmade dikes. The group also will build a bridge over Donovan Creek, which flows into the estuary, and replace a culvert on the west side of Donovan Creek. These changes will allow the Little Quilcene River to function more naturally and allow tides more access to the entire northern portion of the larger Quilcene estuary. The 12.2-mile-long Little Quilcene River flows into Quilcene Bay just north of the town of Quilcene. It is home to summer chum and Chinook, both listed as threatened with extinction under the federal Endangered Species Act, as well as coho, steelhead, pink and cutthroat trout. The Hood Canal Salmon Enhancement Group is partnering with the Wetlands Reserve Program, Jefferson County Conservation District, Jefferson County, local property owners and the Washington Department of Fish and Wildlife to design, construct and manage this important project. This is the third project in Quilcene Bay to restore the nearshore and estuary function. The Hood Canal Salmon Enhancement Group will match this grant with \$958,280 in federal and private grants.

(04-1647)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Removing dikes along the Big Quilcene River **\$144,772**

The Hood Canal Salmon Enhancement Group will use this grant to restore more natural estuarine functions by removing about 1,100 feet of dike on the north side of the Big Quilcene River. This will allow the river to reestablish a natural floodplain and allow a broader area of tidal exchange. The nearly 19-mile-long Big Quilcene River flows into Quilcene Bay just south of the town of Quilcene. Nearly 100 years ago, the lower portion of the river was directed into Quilcene Bay by manmade dikes. Roads were built across the upper section of the estuary and a substantial amount of fill was placed behind the dikes. The river is home to summer and fall chum, Chinook, coho, steelhead, and cutthroat trout. The Hood Canal Salmon Enhancement Group is partnering with the Jefferson Conservation District, Jefferson County, and the Washington Department of Fish and Wildlife to design, construct and manage this project. The enhancement group will match this grant with \$25,621 in federal and private grants. (04-1648)

Restoring the Salmon and Snow creeks watershed **\$687,149**

The North Olympic Salmon Coalition, in partnership with the Washington Department of Fish and Wildlife and the Jefferson Conservation District, will use this grant to pay for planting 31 acres of shoreline at the mouth of Salmon and Snow creeks in Discovery Bay. The grant also will allow the partnership to conduct multiple estuary restoration projects. Overall, they will determine the final design for several high priority restoration actions; develop a plan for future projects; determine the feasibility of reconnecting and restoring lower Salmon and Snow creeks; begin projects including removing fill from salt marsh and tidal channels, restoring the shoreline and removing abandoned buildings; and extend planting to 180 feet on each side of the new Salmon Creek channel and 180 feet from the existing channel. Salmon and Snow creeks are home to summer chum, which are threatened with extinction, as well as coho, steelhead and cutthroat. This work is phase five of a decade of ongoing recovery efforts. The North Olympic Salmon Coalition will match this grant with \$122,521 in federal and state grants and donated labor. (04-1649)

Removing an abandoned fish hatchery **\$123,250**

The Washington Department of Fish and Wildlife will use this grant to remove the hatchery on Shale Creek on the Clearwater River north of Aberdeen. The facility was constructed in 1987 by the department in cooperation with the Quinalt Indian Nation to enhance the coho run in the Queets and Clearwater rivers. Because a new hatchery was built on the Salmon River, a tributary to the Queets River, the facility is no longer being used and the water control structure spanning Shale Creek collects large amounts of woody debris causing the associated concrete apron to increase water velocity and scour out the downstream pool resulting in a barrier to fish migration. This project will open more than 10 miles of spawning and rearing habitat to salmon, steelhead and trout. The Department of Fish and Wildlife will match this grant with \$21,750 in donated equipment and labor. (04-1498)

King County

\$3,664,922

Restoring the Cedar Rapids Floodplain **\$708,907**

King County Water and Land Resources Division will use this grant to restore 1,850 feet of shoreline and floodplain habitat along a stretch of the Cedar River, east of Renton. Levees along this area have degraded habitat for Chinook salmon. There are very few pools where salmon can rest and find cover and there is little gravel on the riverbed where salmon can spawn because of the river's swiftness. The project will restore a more natural form and improve habitats in this important Chinook spawning and rearing area. Project work will include removing levees and



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

bank armoring; restoring the river's channel, gravel bar and pool habitats; reconnecting the river to floodplain and side-channel habitats; anchoring floating logs to reduce the swiftness of the river near the bank; depositing spawning gravel; removing invasive plants from the river banks and from 7 acres of the floodplain; and replanting the area with native trees and shrubs. King County will match this grant with \$150,000 in equipment, labor and materials and donated labor. (04-1660)

Buying a critical piece of land to protect salmon in the Cedar River **\$367,264**

King County Water and Land Resources Division will use this grant to purchase nearly 28 acres along the Cedar River, an area considered essential to preventing the extinction of Chinook salmon in the river. The acquisition would protect 25.6 acres of forestland and 2.29 acres of spawning and rearing habitat. This site, in unincorporated King County, is part of a larger, 220-acre reach and is the largest remaining, unprotected river frontage in the reach. The lower Cedar River supports one of three independent Chinook populations. King County Water and Land Resources Division will match this grant with \$64,811 in donations. (04-1354)

Restoring salmon habitat on Lake Washington **\$350,000**

The Seattle Parks and Recreation Department will use this grant to restore 700 feet of Rainier Beach shoreline on Lake Washington by removing bank armoring, grading the bank, removing debris and converting a defunct marina into prime shallow water habitat. Chinook salmon depend on Lake Washington for both rearing and migration. However, extensive modifications of the shoreline, including bank armoring, construction of buildings over the water and removal of shoreline plants, have severely restricted the quantity and quality of shallow water areas that young salmon rely upon for rearing and refuge. The restoration of the southern portion of Lake Washington is as important as restoring the lower Cedar River for Cedar River Chinook salmon. The Rainier Beach project will complement several other efforts by the City of Seattle to expand rearing habitat in southern Lake Washington. The Seattle Parks and Recreation Department will match this grant with \$100,000. (04-1594)

Removing a seawall to make Seahurst Park's shore better for salmon **\$190,500**

The City of Burien, in partnership with the U.S. Army Corps of Engineers, will use this grant to remove a failing seawall at Seahurst Park and restore a 1,000-foot section of the shore. The restoration work will include returning the shore to a more natural slope along the south section of the park. This is the first phase of shoreline restoration. Subsequent phases will involve planting and remove armoring along the remainder of the park. Since being armored in the 1970s, the beach elevation has dropped three to four feet because of wave scouring. The changes in the beach have significantly degraded its quality as habitat for salmon and the organisms they depend on, particularly forage fish. At 169 acres and nearly 1 mile of shoreline, Seahurst Park can become one of the largest parcels in central Puget Sound with shoreline features that are uniformly favorable for salmon. The City of Burien will match this grant with \$897,500. (04-1423)

Preserving salmon habitat on Maury Island's Piner Point **\$398,980**

King County Water and Land Resources Division will use this grant to buy 1/4 mile of Puget Sound shoreline near the mouth of Quartermaster Harbor on the southeast tip of Maury Island. Development in King County has degraded shoreline habitat so protecting currently functioning habitat has become a priority. In addition to the five parcels the project has sparked interest from two adjacent property owners who are considering donating their property if this project is successful. The Maury Island shoreline is a spawning ground for surf smelt, an important food for salmon. King County Water and Land Resources will match this grant with \$71,000. (04-1335)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Restoring Lower Newaukum Creek **\$788,581**

The King County Department of Natural Resource and Parks will use this grant to restore channel, floodplain and shoreline conditions in the lower 1,800 feet of Newaukum Creek. This would be accomplished by restoring a historic meander, setting back a berm, regrading portions of the floodplain to mimic natural channel conditions and elevations, placing large woody debris jams in the creek and floodplain and planting native plants. Chinook spawn in Newaukum Creek in large numbers, comprising about 16 percent of the naturally spawning adult Chinook that enter the Green/Duwamish River Basin. This project will help maintain the diversity of spawning areas that are important to the long-term health of the Green/Duwamish population. The project also benefits coho, steelhead, chum, cutthroat, sockeye and pink salmon. King County will match this grant with \$15,000 in cash and a local grant. (04-1338)

Designing a new channel for Boise Creek **\$160,690**

King County Department of Natural Resources and Parks will use this grant to design and get the permits for a project to restore channel, floodplain, and shoreline conditions at the mouth of Boise Creek, a tributary to the White River near Buckley. Boise Creek is one of the largest producers of Chinook, coho and steelhead salmon of all the creeks entering the White River. This project will design the relocation of the lowest 500 feet of the creek into a newly constructed channel about 1,200 feet in length. It also will restore the slope of the historic channel and create valuable salmon habitat. King County will match this grant with \$53,564. (04-1467)

Reconnecting the Lower Tolt River Floodplain **\$700,000**

The King County Department of Natural Resources and Parks will use this grant to restore active floodplain area in the lower ½ mile of the Tolt River by setting back levees and allowing the river to meander through the restored floodplain area. The project will restore side channel habitat and create pools and shallow water areas, making it a better place for salmon. Work will be done at the confluence of the Tolt and Snoqualmie rivers in Carnation and includes removing 2,500 feet of levee along the right bank of the Tolt River, building a set back levee about 800 feet behind the existing levee, placing large woody debris in the river to create resting places and cover for salmon, planting and constructing signs and trails. Snoqualmie fall Chinook spawn in the Tolt River in large numbers, comprising 17.5 percent of the annual returning spawners in this watershed. King County will match this grant with \$1.8 million in cash and a state grant. (04-1596)

Kitsap County **\$905,182**

Assessing salmon habitat in Kitsap County **\$181,050**

Kitsap County, in partnership with Battelle Marine Sciences Laboratory, will use this grant to assess the habitat condition of 220 miles of marine shoreline along the East Kitsap Peninsula. The assessment will measure the level of disruption to shoreline functions. The county will use the results to complete a habitat inventory and identify critical areas and landscape features that need protection and restoration for salmon recovery. Kitsap County will match this grant with \$95,000 in donated labor. (04-1442)

Restoring salmon habitat in Chico Creek **\$474,132**

Kitsap County will use this grant to restore productive spawning habitat, provide resting places for salmon during high river flows and help salmon migrate to the 16 miles of habitat in the upper watershed. Chico Creek, which flows into Dye's Inlet in Kitsap County, supports one of the largest runs of fall chum salmon, estimated at 30,000-80,000 fish a year, in the south Puget Sound. The creek is home to coho, steelhead and cutthroat as well. Currently, the stream has



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

been disconnected from its historic floodplain and is overly wide and shallow for use by fish. The restoration project will remove the log weirs and establish a more natural, meandering stream and floodplain. The river banks will be planted with native trees and shrub. Large woody debris will be placed in the stream to provide cover and a place for salmon to rest, feed and spawn. The county will match this grant with \$313,900 in donated cash, labor and materials. (04-1209)

Preserving salmon habitat

\$250,000

The Bainbridge Island Land Trust will use this grant to buy nearly 560 feet of high quality marine shoreline. The land is along Port Orchard Bay between Bainbridge Island and the Kitsap Peninsula. It features an eroding bank supplying necessary sediment to the beach, mature forest and a beach. The shoreline has been documented to support a great diversity of salmon, including Chinook, chum, coho, pink, cutthroat, steelhead, as well as sand lance, surf smelt and herring. The property is a priority conservation area because of its importance to maintaining properly functioning water conditions necessary for salmon survival. It contains very sensitive habitats, including a lagoon, a pocket estuary and spawning areas. The property is at-risk of being sold and developed. This grant will contribute to the acquisition of the 64-acre Close property, which abuts the 318-acre Gazzam Lake Park and Wildlife Preserve. The Bainbridge Island Land Trust will match this grant with \$2.25 million from voter-approved bonds, donations and another state grant. (04-1438)

Kittitas County

\$923,860

Buying land to protect salmon habitat

\$123,000

The Yakama Nation will use this grant to purchase 50 acres of land, which encompasses 2,400 feet of a side channel of the Yakima River, west of Ellensburg. The 100-year floodplain of the Yakima River and side channel will be permanently protected as habitat. Recent research conducted by the Yakama Nation, Washington Department of Fish and Wildlife, the University of Montana and Central Washington University identified this area as highly productive for Chinook, steelhead and coho salmon. These habitats are exceptionally important, given the regulated flow of the Yakima River. Artificially high summer flows diminish rearing habitat quality, making stable side channels even more important. The landowners are willing sellers. The tribe will match this grant with \$106,520 in federal and local grants and labor. (04-1680)

Buying land along the upper Yakima River to protect salmon

\$123,400

The MountainStar Conservation Trust will use this grant to buy 23.49 acres in an important fish producing reach of the Upper Yakima River, west of Cle Elum. The mature forest on this land is in a naturally functioning floodplain that supports high priority habitat along the stream bank. Spawning and rearing life cycle stages of steelhead, spring Chinook and coho salmon depend on protecting functioning habitat from becoming fragmented and degraded. This project will protect habitat in a gateway area where 50 percent of the Yakima basin spring Chinook migrate into the upper Yakima River system. The land will be managed for low impact uses, such as fishing. The MountainStar Conservation Trust will match this grant with \$53,000 in cash and donated labor. (04-1679)

Purchasing a conservation easement to protect salmon habitat

\$380,000

The MountainStar Conservation Trust will use this grant to purchase a conservation easement on 96 acres along the north fork of the Teanaway River in northern Kittitas County. The river is home to bull trout and Chinook salmon. The highly functional flood plain nurtures complex salmon habitat and comprises 353.5 acres of forest and meadow. This project is the first phase



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

of a habitat protection strategy, and extinguishes the development, timber and grazing rights with the purchase of the conservation easement over the lower 96 acres of the floodplain. The landowner manages more than 20,000 acres of commercial forest drained by this watershed and wants to augment timber revenues by subdividing and selling land along the river. This project helps salmon recovery by protecting 96 acres of highly functional floodplain in a naturally flowing tributary to the upper Yakima River. The MountainStar Conservation Trust will match this grant with \$80,000 in cash and donated labor. (04-1672)

Removing fish barriers on Reecer Creek **\$269,060**

The Kittitas County Conservation District will use this grant to remove barriers to fish migration on Reecer Creek, west of Ellensburg. Currently, structures near the mouth of the creek block steelhead, Chinook and coho salmon from entering the watershed. The project will remove two structures and two unscreened water diversions will be screened to prevent fish entrapment. Once completed, the project would open up more than 2 miles of spawning and rearing habitat. The City of Ellensburg, as part of this project, will remove two additional diversion dams on the creek that also create a barrier to fish passage. The Kittitas County Conservation District will match this grant with \$91,466 in federal and state grants, donated equipment, labor, land, materials and property interest. (04-1675)

Planting trees along Wilson Creek **\$28,400**

The Kittitas County Conservation District will use this grant to plant shrubs and trees that will provide shade, leaves and woody debris, which create habitat for salmon, along 1/4 mile of Wilson Creek, near the sewage treatment plant south of Ellensburg. The project area has sparse Pacific willow, cottonwood and shrubs but is dominated by reed canary grass. Less than 10 percent of the lower 8 miles of Wilson Creek has trees and shrubs that create inviting salmon habitat. The conservation district will match this grant with \$8,520 in donated labor. (04-1676)

Klickitat County **\$829,256**

Protecting and restoring habitat along the Klickitat River **\$577,981**

The Columbia Land Trust will use this grant to protect and restore habitat along 14 miles of the Klickitat River. This portion of the river has the greatest habitat complexity of any reach on the lower Klickitat River and provides critical spawning, migration and rearing habitat for winter and summer steelhead, which are threatened with extinction, and Chinook and coho salmon. This reach provides the highest proportion of spawning, rearing and migrating habitat for all three species. The habitat has been degraded by a combination of floods and road fill. The Columbia Land Trust will match this grant with \$102,000 from a federal grant and donated labor. (04-1715)

Making Snyder Creek Mill Site fish friendly **\$204,873**

The Washington Department of Fish and Wildlife will use this grant to restore fish passage in Snyder Creek, a Klickitat River tributary. The work will provide mid-Columbia River steelhead, which are threatened with extinction, and coho salmon with access to good spawning and rearing habitat above the Klickitat mill site, which is at the mouth of the creek. The mill site reach of Snyder Creek contains multiple barriers, including a 2,413-foot concrete flume. This project will install 96 weirs, create bank protection and reconstruct a section of the flume wall. The department will match this grant with \$200,000 in donated materials and equipment and labor. (04-1714)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Planting trees to improve salmon habitat on the Lower Klickitat River **\$46,402**

The Mid-Columbia Regional Fish Enhancement Group will use this grant to plant cottonwood, alder and willow trees along 16 miles of the Klickitat River, near the town of Klickitat. This area is a migration and rearing corridor for nearly all migratory fish in the Klickitat watershed. The trees will shade and cool the water and deposit woody debris in the river, which creates places for fish to hide and rest. Streamside conditions in this area are generally poor because of past floods and encroachment by road fill. Plants have been very slow to grow in this area. Activities will occur on seven sites and total 6.9 acres with 1.45 miles of stream bank. The Mid-Columbia Regional Fish Enhancement Group will match this grant with \$13,370 from a federal grant and donated labor. (04-1711)

Lewis County **\$380,149**

Replacing culverts to open up fish habitat **\$35,149**

The Lewis County Conservation District will use this grant to remove three culverts and replace them with a railcar bridge that will allow fish of all ages and lifestyles to migrate up and down Stearns Creek. The project is southwest of Chehalis on Pleasant Valley Road, about 2.8 miles from the confluence of Stearns Creek and the Chehalis River. This is a high priority project that will give the coho, cutthroat and steelhead that live in the creek access to more than 12 miles of habitat. The Lewis County Conservation District will match this grant with \$18,000 from other federal and state grants. (04-1670)

Replacing a culvert on Lucas Creek **\$345,000**

Lewis County Public Works will use this grant to replace a culvert in Lucas Creek east of Chehalis with a bridge to improve fish passage. Lucas Creek is a tributary to Newaukum River, which flows into the Chehalis River, and is home to Chinook, coho, steelhead, resident and sea-run cutthroat trout and rainbow trout. The culvert is a barrier to migrating adult fish and its 1-foot drop at the outlet presents a barrier to young salmon trying to migrate upstream. The grant will allow the county to place a new precast concrete bridge, gravel, large woody debris (which creates salmon habitat), and streamside plantings in the creek to restore fish passage. Lewis County will match this grant with \$147,900. (04-1689)

Mason County **\$1,700,851**

Replacing culverts to let fish pass through **\$156,000**

Mason County Public Works will use this grant to replace two culvert crossings on a county road near Schaffer State Park, 20 miles southwest of Shelton. The crossings, which are above the confluence of two major forks of an unnamed tributary to the east fork of the Satsop River, are too steep and prevent young salmon from migrating. The existing culverts would be replaced with 10-foot-wide concrete box culverts. Replacement of both culverts would provide salmon access to more than 2 miles of habitat. Fish that use the stream includes chum, coho and coastal and resident cutthroat. The county will match this grant with \$39,000 in equipment and labor. (04-1669)

Replacing culverts to help salmon **\$104,000**

Mason County Public Works will use this grant to replace a culvert in Petersen Creek, a tributary to the east fork of the Satsop River. The crossing is made up of two culverts stacked on top of each other on Beeville Road, near Matlock. The bottom culvert is a barrier to fish because of its slope. The grant would allow the county to install an 18-foot-wide oval aluminum culvert that



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

would open 3.85 miles of habitat. This crossing is the lowermost remaining fish passage barrier on a county road. Chum, coho and coastal and resident cutthroat salmon use the stream. The county will match this grant with \$26,000 in equipment and labor. (04-1668)

Buying land to protect salmon **\$655,300**

With this grant, the Capitol Land Trust will purchase a 95-acre parcel near Shelton containing 2,000 feet of intact, functional marine shoreline, nearshore and estuarine habitat on upper Oakland Bay as well as about $\frac{3}{4}$ mile of Malaney Creek habitat from estuary to uplands. A rich and diverse buffer of native plants and trees lines the property's shorelines and uplands, providing feeding, resting and transitioning habitat for chum, Chinook, cutthroat, steelhead and coho salmon. The land, one of the region's largest, remaining, intact shoreline properties, was identified as a priority conservation project. The property's owner has kept the property off the market for two years to enable conservation efforts, but has indicated that the property will be put up for sale if not already acquired. Current regulations would allow for 19 homes along the shoreline. The Capitol Land Trust will match this grant with a \$600,000 local grant and a donation of land. (04-1464)

Planning projects to benefit salmon **\$74,662**

The South Puget Sound Salmon Enhancement Group in partnership with the Squaxin Island Tribe will use this grant to identify and design up to five salmon restoration projects in the lower Puget Sound, Oakland Bay, Pickering Passage and Totten Inlet. Local and regional experts will provide scientific input on the potential restoration project list. Project types may include bulkhead removal, wood and gravel placement on the beach, restoration of pocket estuary function, dam and levee removal and construction of tidal culverts. Projects that provide the greatest benefit to salmon, high likelihood of success and landowner willingness will be considered for restoration actions. The South Puget Sound Salmon Enhancement Group will match this grant with \$15,600 in money and donated equipment and labor. (04-1474)

Building a bridge to help fish passage **\$440,064**

The South Puget Sound Salmon Enhancement Group will use this grant to install a 65-foot-long, concrete bridge that will improve fish passage on Hiawata Creek, about $\frac{1}{4}$ mile upstream of the estuary in Pickering Passage near Allyn. Chum, coho and coastal cutthroat as well as other fish use Hiawata Creek. The upper wetland headwaters provide rich rearing opportunities while the lower stream reach provides spawning opportunities. The existing concrete culvert is undersized and failing. Due to high flows, a large outfall drop and a small diameter culvert, the downstream channel has become severely degraded and portions have become a barrier for salmon. The downstream channel will be re-graded and realigned to provide a deeper creek for fish and large woody debris and boulders will be placed in the remainder of the stream to help natural channel formation. The South Puget Sound Salmon Enhancement Group will match this grant with \$77,700 in money and donated labor. (04-1470)

Studying the Skokomish River **\$270,825**

The Skokomish Indian Tribe will use this grant to study the Skokomish River basin. The tribe will be looking at areas for habitat and floodplain enhancement, restoration and acquisition. The watershed is home to Puget Sound Chinook, Hood Canal summer chum and bull trout. This project brings together the tribe, Mason County, Mason Conservation District and the Washington State Department of Transportation, and provides a funding match for securing additional support from the U.S. Army Corps of Engineers. The corps will lead the assessment. The tribe will match this grant with \$65,000 in state and federal grants, equipment and donated materials. (04-1712)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Okanogan County \$1,221,608

Removing a dam to allow fish to pass \$364,018

The Chewuch Basin Council will use this grant to replace the 7-foot-tall Fulton Dam on the Chewuch River in Winthrop with a partial-span dam. Across the remainder of the channel, the council will create a roughened channel that will average 20 feet in width and 100 feet in length to make it easier for Chinook salmon, bull trout and steelhead to pass. The Chewuch Basin Council will match this grant with \$109,205 in donated labor. (04-1485)

Protecting spawning areas in the Chewuch basin \$425,000

The Methow Conservancy will protect 150 acres and 2.4 miles of riverfront habitat by purchasing conservation easements on four properties. The properties in the Chewuch Basin provide spawning areas for about 25 percent of the spring Chinook salmon in the Methow watershed, and also support spawning steelhead, cutthroat trout, coho and bull trout. The lower 8 miles of the Chewuch basin significantly contribute to the spawning success for all fish in the basin. This project will permanently decrease pressure from residential development and recreation by placing conservation easements on the land. The Methow Conservancy will match this grant with \$75,000 in donated property interest. (04-1492)

Studying the Okanogan River \$80,683

The Colville Confederated Tribes will use this grant to complete the GIS analysis of 106 miles of data on the Okanogan River already collected and extend the coverage another 55 miles to include previously un-surveyed salmon habitats. The study will collect high-resolution topographic data and information on water temperatures for select areas in the Okanogan River. High temperatures can be deadly to salmon and temperature information is vital when considering protection activities. The information will help the tribe prioritize opportunities for habitat restoration. The Colville Confederated Tribes will match this grant with \$22,968 in donated labor. (04-1717)

Replacing the Chewuck Dam \$110,279

The Chewuch Basin Council will use this grant to replace the Chewuch Dam, which is 8 miles north of Winthrop on the East Chewuch Road, with a partial span structure and roughened channel. The Chewuch Dam on the Chewuch River effectively blocks fish migration at low flows. Re-construction of the dam and roughened channel will provide improved passage for fish at all flow levels while maintaining irrigation viability. This channel will average 20 feet in width and 100 feet in length with a 4 percent slope. Removing the dam will give fish access to 30 miles of habitat in the Chewuch River. The council will match this grant with \$161,812 in donations and donated labor. (04-1489)

Putting ditches into pipes to improve river flow \$180,913

The Okanogan Conservation District will use this grant to place two irrigation ditches, the Fort/Thurlow and Miller ditches near Twisp, into pipes. The ditches are on private property in the Beaver Creek drainage, a tributary of the Methow River in western Okanogan County. Both ditches are unlined canals constructed in sandy soils and are thought to be losing up to 60 percent of the water. By putting the ditches into pipes, the water would stay in the creek, which would improve habitat for salmon. These piping projects have been identified as essential to salmon recovery in Beaver Creek. The conservation district will match this grant with \$33,900 in donated equipment, labor and materials. (04-1688)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Replacing the Rockview Diversion **\$60,715**

The Upper Columbia Regional Fisheries Enhancement Group will use this grant to remove the Rockview diversion and install a well that would replace 5.37 cubic feet per second of water into the Methow River. The Rockview diversion is downstream of the Weeman Bridge between State Route 20 and the Methow River, about 8 miles northwest of Winthrop. The screen on the diversion was built in 1965 and does not meet current criteria for fish protection. The Methow River is home to spring Chinook, summer steelhead, bull trout, redband trout, Pacific lamprey and westslope cutthroat. The fish enhancement group will match this grant with \$18,600 in donations and donated labor. (04-1494)

Pacific County **\$1,296,993**

Restoring the Fort Columbia wetland **\$168,521**

The Columbia River Estuary Study Taskforce will use this grant to replace an undersized culvert in Fort Columbia State Park. Construction of Highway 101 and installation of a culvert disconnected the Chinook River and associated floodplain from the Columbia River estuary. As a result, 96 acres of habitat was converted into freshwater wetland. By replacing the culvert, a connection will be reestablished between the Chinook River and the estuary allowing fish and wildlife to once again get to the wetland. The Chinook River supports populations of Lower Columbia fall Chinook and chum salmon, both of which are threatened with extinction, coho salmon as well as steelhead and coastal cutthroat trout. The taskforce will match this grant with a \$199,700 federal grant. (04-1570)

Restoring the Baker Bay Estuary **\$115,679**

The Vancouver office of Ducks Unlimited will use this grant to restore 40 acres of wetlands at the mouth of the Wallacut River in Pacific County. Restoration will involve breaching the dike along the Wallacut River in several places, removing a tide gate, restoring historic tidal channels, removing one culvert and building a setback levee to protect a house. This property represents some of the last undeveloped tidelands and shoreline in Baker Bay. More than 40 acres of the property will be restored to wetlands, which provide excellent nursery and rearing habitat for young salmon. These habitats are also very important for Chinook, coho and chum salmon. Ducks Unlimited will match this grant with \$21,000 in donated labor and a federal grant. (04-1559)

Removing barriers to fish passage on Johnson Creek **\$155,122**

The Pacific Conservation District will use this grant to remove a metal structure in one area and to realign a road and replace a culvert in another area, removing barriers to salmon migration in Johnson Creek near the Naselle Salmon Hatchery. In the first area, the district will remove a structure near the outlet of the main Wirkkala Pond that has created a 4-foot drop and reconstruct 350 feet of natural stream channel, thereby opening up 1.45 miles of habitat that will benefit all salmon. In the second area, the road will be moved 10 feet to the east, a rusted culvert that impedes fish passage in a tributary of Johnson Creek draining the upper Wirkkala Pond will be replaced, 80 feet of channel containing large, wood debris will be constructed and a new river channel will be connected to a pond, all opening up 1.23 miles of habitat. The Pacific Conservation District will match this grant with \$27,375 in donated equipment, labor and materials. (04-1622)

Replacing culverts on Oxbow Creek **\$352,183**

The Willapa Bay Regional Fish Enhancement Group will use this grant to replace culverts that are blocking fish passage on Oxbow Creek east of Raymond. The undersized culverts are blocking



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

4.1 miles of spawning and rearing habitat for chum, coho, Chinook, steelhead and cutthroat trout. The goal of the project is to connect isolated habitat to increase the range and distribution of salmon. The fish enhancement group is partnering with the state departments of Natural Resources and Fish and Wildlife, the landowner and Pacific County. The Willapa Bay Regional Fish Enhancement Group will match this grant with \$62,120 in donated cash and labor. (04-1627)

Buying and restoring Skidmore Slough **\$460,488**

The Sportsmen's National Land Trust will use this grant to buy 80 acres and begin restoration of degraded shoreline and wetlands that sustain Skidmore Slough near South Bend. The land trust will remove blackberries and replant the area with native plants. The overall goal of the project is to restore degraded water quality and salmon access to about 3 miles of rearing channels in the Willapa River and to remove and replace structures that block salmon migration. The Sportsmen's National Land Trust will match this grant with \$81,215 in donated labor and federal and state grants. (04-1636)

Prioritizing projects in the Willapa Bay Estuary **\$45,000**

The Coastal Resources Alliance will use this grant to assemble historic information that will help it prioritize habitat in Willapa Bay for its value to salmon and as a restoration project. The Coastal Resources Alliance will match this grant with \$8,000 in donated cash, equipment and labor. (04-1641)

Pend Oreille County **\$924,442**

Removing the Cedar Creek Dam to allow salmon migration **\$725,144**

The town of Lone will use this grant to remove the Cedar Creek Dam, reconstruct the stream channel and place plants along the shore. The dam's removal will give bull trout access to about 10 miles of potential habitat. Cedar Creek is a tributary to the Pend Oreille River in northeastern Washington. Historically, bull trout from the Pend Oreille River and Lake Pend Oreille spawned and reared in tributaries such as Cedar Creek. However, the Cedar Creek Dam has been a barrier to fish migration for more than 50 years. Restoring fish passage at the dam has been seen as a top priority for recovering bull trout populations in the Pend Oreille area. The town of Lone will match this grant with \$127,966 in donated labor and materials and a federal grant. (04-1372)

Assessing the barriers to fish migration in the Priest River basin **\$85,563**

The Pend Oreille Conservation District will use this grant to identify fish passage barriers, assess available habitat and its quality and rank barriers to fish migration. This is a cooperative project between the district and the Idaho Panhandle National Forest that will assess more than 100 miles of stream and more than an estimated 150 stream crossings within the Priest River portion of the Pend Oreille watershed. This project, which will take about two years of fieldwork to complete, will assess streams on public and private lands, from the state border upstream to the limits of fish distribution. This project will help identify and prioritize future restoration projects. After prioritization is complete, the top five projects from the list will have preliminary design work completed under this grant. The Pend Oreille Conservation District will match this grant with \$20,282 in donated equipment and labor. (04-1480)

Improving fish passage in Indian Creek **\$113,735**

The Pend Oreille Conservation District will use this grant to reduce the number of salmon who die after entering a water diversion instead of remaining in Indian Creek in the Pend Oreille



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

watershed. Three insufficiently screened water diversions will be screened and one open ditch will be put into a pipe. The project, which is 7 miles northwest of Newport, will occur in conjunction with other Indian Creek fish passage improvements currently underway through funding from the Family Forest Fish Passage and Landowner Incentive programs. Indian Creek is home to bull trout, westslope cutthroat trout and mountain whitefish. The Pend Oreille Conservation District will match this grant with \$31,034 in donated labor and a federal grant.

(04-1373)

Pierce County

\$1,502,005

Restoring and preserving Mashel River

\$502,600

The South Puget Sound Salmon Enhancement Group will use this grant for the final design, permitting, construction, monitoring and land purchase for restoration projects in four sections of the Mashel River, near Eatonville. The Mashel River is an important spawning and rearing area for Chinook, steelhead and coho salmon. Projects will include purchasing easements on some land, enhancing fish habitat, improving shoreline plants, removing riprap near Smallwood Park and enhancing wetland and shoreline function at Eatonville's sewage treatment plant outfall. The grant also will allow the salmon enhancement group to purchase conservation easements for at least six properties, which will permanently protect the floodplain area from development. The salmon enhancement group will partner with the Nisqually Watershed Education Project, Nisqually Stream Stewards and Pierce County Stream Team to engage volunteers in planting, maintenance and monitoring. The Nisqually Tribe will provide additional monitoring. The South Puget Sound Salmon Enhancement Group will match this grant with \$128,251 in cash and donated materials, labor and equipment.

(04-1437)

Buying land to protect salmon habitat

\$576,955

The Cascade Land Conservancy will use this grant to buy and restore about 100 acres, known as the Inglin Farm, of highly ranked habitat along South Prairie Creek, near the town of South Prairie. The South Prairie Creek, the primary tributary to the Carbon River, is the most important salmon spawning area in the Puyallup watershed, producing nearly half of all the wild steelhead in the Puyallup River system, the only significant run of pink salmon and important returns of Chinook, coho, chum salmon and sea-run cutthroat trout. The high quality habitat along the stream is threatened by increasing development. The conservancy will plant native plants to restore the area. The Cascade Land Conservancy will match this grant with \$523,072 in cash and donated labor.

(04-1687)

Studying the feasibility of moving levees

\$297,500

The Pierce County Water Programs Division will use this grant to create a comprehensive catalog of potential levee setback projects on the Puyallup, White and Carbon rivers. Moving the levees would reconnect the rivers and floodplains, a top priority restoration action. The study will pick project locations where features such as historic side-channels and hydrology indicate the likelihood that natural processes will act to create the desired habitat. Engineering concerns, land-use, hydrology and flood protection, cost and landowner willingness will be evaluated along with habitat restoration to prioritize projects. Conceptual designs will be evaluated and prioritized, and a few high priority projects will proceed through preliminary design. The Pierce County Water Programs Division will match this grant with \$52,500.

(04-1216)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Purchasing land for salmon habitat **\$124,950**

The Nisqually Land Trust will use this grant to buy about 12 acres along the Nisqually River for permanent protection. The property is on Harts Lake Loop Road near McKenna. The land includes nearly 1/2 mile of meandering shoreline. The riparian shoreline habitat contains a large stand of mature trees on steep slopes along the river. The land trust will match this grant with \$22,050. (04-1623)

San Juan County \$133,829

Returning the Mud Bay shoreline to its natural state **\$38,850**

The FRIENDS of the San Juans will use this grant to conduct a feasibility study and design project to restore degraded forage fish habitat and improve beach character and function. Low rock along a county road and wood bulkheads on private properties have resulted in changes to the natural beach processes of Mud Bay. Mud Bay's extensive shallow water ecosystem provides important feeding and rearing habitat for young salmon. Mud Bay has year-round surf smelt spawning and is within one of San Juan County's four critical nearshore marine habitat regions. The FRIENDS of the San Juans will match this grant with \$70,000 in donated labor.

(04-1657)

Transplanting eelgrass to Westcott Bay **\$94,979**

The FRIENDS of the San Juans will use this grant for a pilot project to transplant eelgrass in Westcott Bay at the northwest corner of San Juan Island. The FRIENDS will evaluate the bay's conditions and establish sites where restoration of eelgrass will be most successful. Westcott Bay is a biologically rich area that is home to salmon, herring, surf smelt and crab. Recent surveys indicate that more than 45 acres of eelgrass has disappeared from the bay. Eelgrass will be transplanted using a buoy deployed seeding system and, if necessary, whole plants. The project will use volunteers and educate citizens about eelgrass. Project results will provide a scientific baseline for future restoration efforts in areas where reductions in eelgrass are found. The FRIENDS of the San Juans will match this grant with \$16,761 in donated labor and a private grant.

(04-1697)

Skagit County \$1,591,299

Milltown Island Estuarine Restoration **\$355,000**

The Skagit River System Cooperative will use this grant to extensively breach dikes at Milltown Island, south of Conway, to restore tidal and river processes that will scour and maintain tidal channels. The cooperative also will restore the shrub habitat to this land and eliminate or greatly reduce the invasive reed canarygrass in the process. Estuarine shrub habitat provides significant ecological functions to young salmon. Beaver living in tidal shrub habitat build dams that create tide pools which act as refuges for young salmon. Milltown Island was sold to the Washington Department of Fish and Wildlife after farming became impractical. The site has lain fallow and restoration efforts have been minimal. The Skagit River System Cooperative will match this grant with a \$100,000 local grant.

(04-1620)

Protecting and restoring Fisher Slough **\$338,575**

The Nature Conservancy will use this grant to buy about 50 acres of land within the Skagit estuary south of Conway and complete about 90 percent of the design for restoration to habitats critical for Chinook and coho salmon rearing. As part of the design process, ecosystem



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

functions will be assessed and concepts for addressing high priority problems will be developed. The land is adjacent to Fisher Slough, a tributary slough of the Skagit River's south fork. In addition to the Skagit, Fisher Slough is fed by three coho-bearing tributaries--Carpenter, Big Fisher and Little Fisher. The project was proposed by the landowner, a farmer who wants to provide an opportunity for habitat and farm interests to mutually benefit. Salmon will benefit from additional habitat, and flooding will be alleviated for farmland upstream. The Nature Conservancy is partnering with Dike District 3, Skagit County and the Greater Skagit Delta Initiative whose members include Skagit Watershed Council, Skagitonians to Preserve Farmland, the Trust for Public Land and The Nature Conservancy. The Nature Conservancy will match this grant with \$62,000 in cash and donated cash and labor. (04-1624)

Studying how to improve salmon passage through the Swinomish Channel \$159,550

The Skagit River System Cooperative will use this grant to study to how to maximize salmon's ability to travel from the North Fork of the Skagit River through the Swinomish Channel to Padilla Bay, while minimizing sediment that travels into the channel. The study will predict freshwater and tidal mixing, sediment transport, and salmon migration success under various restoration alternatives. Engineering designs will begin on the preferred alternative. Channel dredging began in the 1890s so local farmers could transport goods to market. Dredge spoils were used to build a causeway between LaConnor and McGlenn Island, to block freshwater and sediment from entering the river to the channel. In 1938, a jetty was built to further restrict river-channel connectivity. The causeway and jetty have greatly restricted young salmon from reaching extensive rearing habitat in Padilla Bay. In addition to physical obstruction, reduced freshwater in the channel has greatly increased the water's saltiness and created another barrier for young Chinook salmon, which are sensitive to high salinity. Restoration of river-channel connectivity is necessary to allow young salmon to reach rearing habitat in Padilla Bay and for further salmon habitat restoration along the channel. The Skagit River System Cooperative will match this grant with \$50,000 in donated equipment. (04-1625)

Restoring the banks of the Skagit River \$155,500

Seattle City Light will use this grant to restore native shoreline vegetation and improve bank conditions along a 2-mile section of the Skagit River, east of Hamilton, called the Hoy property. This section of river is one of the most important spawning areas for Chinook, chum and pink salmon and steelhead trout in Skagit River downstream of its confluence with the Sauk River. This area of the river possesses the highest concentration of fall Chinook salmon spawners in the middle Skagit River, and this population has undergone the greatest decline of the six Chinook populations present in the watershed. The river bank along this section of the river has been substantially impacted by historic cattle grazing and land clearing, and is rapidly eroding in many areas. Seattle City Light will match this grant with \$97,000. The acquisition of this 2-mile property was supported through a grant from the National Fish and Wildlife Foundation. (04-1655)

Restoring the Swinomish channel \$450,949

Ducks Unlimited will use this grant to restore about 200 acres of former estuarine marsh along the Swinomish channel west of Mount Vernon and south of the Northern Lights Swinomish Casino. Existing levees will be removed. New levees that are further back will be constructed to protect adjacent properties. The restoration of marsh, sloughs and distributary channels will provide important rearing habitat for Skagit basin Chinook salmon, which are threatened with extinction. The project also will provide rearing habitat for several other salmon species. The Skagit Watershed Council and other groups have made the restoration and protection of estuarine marsh a high priority action needed to recover and maintain healthy salmon populations. In addition to providing important benefits to salmon, the project also will provide



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

ideal habitat for other species of fish and wildlife. Partners in this effort include: two landowners, the Washington Department of Fish and Wildlife, Skagit County, the Pacific Coast Joint Venture, North American Wetlands Conservation Council and Ducks Unlimited, Inc. Ducks Unlimited will match this grant with \$485,346 in labor and federal and state grants. (04-1626)

Studying the Rawlins Road estuary **\$131,725**

The Washington Department of Fish and Wildlife will use this grant to evaluate alternatives for restoring estuary habitat in the western section of Fir Island, from the Browns/Hall Slough complex westward into public lands outside the bay front dikes. The study will look at ways to improve habitat for the Skagit Chinook salmon, which are threatened with extinction. The study will characterize site conditions, develop conceptual alternatives to restore estuarine habitat for young salmon rearing and set up a process for evaluating and selecting alternatives for design and implementation. The department is partnering with the Skagit Watershed Council and the Western Washington Agricultural Association. The department will match this grant with \$55,000 in cash and a local grant. (04-1640)

Skamania County **\$459,644**

Providing food for young salmon **\$172,000**

The Lower Columbia Regional Fisheries Enhancement Group will use this \$172,000 grant to place fish meal briquettes in the Lewis and Wind rivers to measure how this food might affect the number of juvenile salmon that can be raised in a freshwater ecosystem. The U.S. Geologic Survey has rated sections of the Lewis and Wind rivers as being low in the nutrients young salmon need to grow. The fish briquettes are pasteurized, nutrient-rich, low cost and easy to transport. They are formulated to mimic the rate of decay of actual salmon carcasses. After placement of the fish briquettes, Geologic Survey will monitor the responses of algae, insects, fish and water chemistry and compare the responses to those from nearby streams that receive no nutrient enhancement. Project partners include U.S. Geologic Survey, U.S. Forest Service, Washington Department of Fish and Wildlife, scientists and several local conservation groups. The work sites in the Lewis River watershed are in Clark County and the sites in the Wind River watershed are in Skamania County. The Lower Columbia River Fish Enhancement Group will match this grant with a \$150,000 federal grant. (04-1576)

Placing log jams in the upper Washougal River **\$287,644**

The Lower Columbia Regional Fisheries Enhancement Group will use this grant to place log jams and log and boulder complexes in the upper Washougal River to improve salmon habitat. The log jams will be capable of withstanding peak flows and will create spawning and rearing areas and places for salmon to hide from predators. The log jams will be placed in the Washougal River, between river mile 15 and 22, which has become deeply incised. The project will directly benefit steelhead, Chinook and coho salmon, resident cutthroat, rainbow trout and mountain whitefish. The fish enhancement group is partnering with the Department of Natural Resources, Longview Fibre, the Washington Department of Fish and Wildlife and Skamania County. The fisheries enhancement group will match this grant with \$50,761. (04-1575)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Snohomish County

\$1,574,636

Restoring wetlands in the Spencer Island Estuary

\$297,686

Ducks Unlimited will use this grant to completely restore 400 acres of wetlands in the Snohomish River estuary on Spencer Island. The project site, owned by the Washington Department of Fish and Wildlife, is on Spencer Island, 1 mile east of Everett on the Snohomish River. Ducks Unlimited will restore the site by removing existing levees, filling drainage ditches and re-establishing old sloughs and channels. The restoration of natural tidal functions will encourage the re-establishment of native wetland plants. Estuarine habitats provide critical rearing habitats for Chinook and coho salmon. It has been estimated that as much as 85 percent of the historic tidal marsh has been lost due to construction of levees and tide-gates. Intensive modifications within the watershed have led to significant water quality problems in the estuary. The restoration of natural tidal marshes, channels and sloughs has been identified as a first priority for salmon restoration. This project will provide extensive rearing habitat for Chinook and coho salmon. Ducks Unlimited will match this grant with \$110,000 in labor and a federal grant. (04-1585)

Restoring the Qwuloolt Estuary

\$210,594

The Tulalip Tribe will use this grant to develop proposals to remove or breach dikes and tide gates on Allen and Jones creeks to restore the 300-acre Qwuloolt estuary and to reconnect two stream systems. The loss of habitat in the lower Snohomish River estuary has been significant; only 17 percent of the area remains. These habitat changes have reduced Chinook production capacity by as much as 61 percent of its historic level. Increasing the amount of tidal marsh and habitat complexity and reducing habitat fragmentation will provide significant improvements in Chinook salmon's ability to reproduce and diversity. The Qwuloolt project is adjacent to Marysville along Ebey Slough in the lower Snohomish River. This project will occur in four phases and this grant is for phase two – developing alternative proposals, performing environmental and public review and conducting studies. The Tulalip Tribe will match this grant with \$80,000 in donated labor and cash. (04-1587)

Restoring the Leque Island estuary

\$569,356

Ducks Unlimited Inc. will use this grant to restore about 115 acres of wetlands in the Leque Island Wildlife Area between the mouth of the west and south forks of the Stillaguamish River. The wetland was diked, ditched and drained in the 1930s, resulting in the loss of estuarine marsh essential for young salmon and wintering waterfowl. Restoration activities include removing the dikes and restoring tidal influence on the site. Spoils from the dike breaches will be used to create set back dikes to protect adjacent properties. This project will coordinate restoration efforts with nearby projects and eventually result in the restoration of 285 acres of wetland available for young salmon refuge. The entire complex will be managed for fish, wildlife and public recreation. Ducks Unlimited Inc. will match this grant with \$115,000 in donated labor and materials and a federal grant. (04-1651)

Blocking off a landslide to make the Stillaguamish River better for salmon

\$497,000

The Stillaguamish Indian Tribe will use this grant to move the north fork of the Stillaguamish River away from a landslide. The landslide is dropping sediment into the river, making it wider and more shallow, and thereby increasing the temperature of the water so that it less usable by salmon. The tribe will build a structure 500 feet from the toe of the slide, move the river south and isolate the landslide from the river. The goal of the project is to reduce sediment to a level the river can flush and thereby increasing salmon spawning and survival. Currently heavy silt deposits cover most of the shallow gravel areas, making them unsuitable for spawning and egg



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

incubation. The Stillaguamish Indian Tribe will match this grant with \$923,000 in equipment and labor. (04-1634)

Thurston County \$1,369,243

Protecting habitat in the Nisqually River \$214,200

The Nisqually Land Trust will use this grant to buy about 56 acres along the Nisqually River downstream of McKenna in Thurston County. This project will permanently protect 3,000 feet of shoreline. The Nisqually Land Trust will match this grant with \$37,800 in cash and donations. (04-1658)

Protecting habitat in the Black River \$200,366

The Capitol Land Trust will purchase a conservation easement on 75 acres on the Black River near Littlerock that contain a mix of salmon habitat and forests. With a conservation easement, the landowner still owns the property but has agreed to limit the impact of current and future activities on salmon habitat. The Black River and the waterways coming off or flowing into the river form a complex system of pathways for salmon. A rich native buffer of plants and trees lines the property's shoreline, providing excellent protection for salmon. The Black River is one of the largest remaining wetland systems in western Washington. The river and its tributaries provide important rearing and spawning habitat for steelhead, coastal cutthroat trout, and chum, coho and Chinook salmon. The 75 acres, called the Bergquist parcel, are between major areas protected by the Nisqually Wildlife Refuge and The Nature Conservancy, Thurston County and the Capitol Land Trust. The Capitol Land Trust will match this grant with \$35,359 in county funding through conservation futures. (04-1667)

Identifying restoration projects in Thurston County \$74,412

The South Puget Sound Salmon Enhancement Group will use this grant to work with landowners living along Thurston County's shorelines to identify potential restoration projects. Many of south Puget Sound's shorelines are impacted by bulkheads, culverts and other development, which can damage the nearshore environment for salmon. The nearshore is particularly important for Chinook and chum salmon, which rely on this area for migration corridors, protection from predators and food production. This project will work with landowners living along Eld, Budd and Henderson inlets and along the Nisqually Reach to identify potential projects. The South Puget Sound Salmon Enhancement Group will organize a technical committee from existing partnerships and a review committee to assist in the selection process. The committees will select projects based on benefit to salmon, landowner willingness, and technical merit. Projects will focus on restoring nearshore processes. Up to five projects will be selected and partially designed. The South Puget Sound Salmon Enhancement Group will match this grant with \$13,600 in donated equipment and labor. (04-1389)

Studying the possibility of returning Capitol Lake to an estuary \$221,740

The Thurston Regional Planning Council, on behalf of the Capitol Lake Adaptive Management Plan Steering Committee, will use this grant to study the feasibility of restoring Capitol Lake in Olympia to an estuary. Capitol Lake used to be part of Budd Inlet, but was made part of the state Capitol Campus in 1951 with the construction of a dam and Deschutes Parkway. Management challenges with the lake have reached a point where undertaking an estuary feasibility study was set as a priority. Restoring Capitol Lake would result in adding 260 acres of estuary habitat and about 6.5 miles of shoreline to southern Puget Sound. This grant will focus on those tasks associated with the estuary's future biological conditions and is the first step towards a future decision about the lake. Both public and peer review process are integrated into the project to



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

address community concerns about the study's objectivity and to ensure that a solution incorporates the concerns and needs of the community along with habitat and fish. The Thurston Regional Planning Council will match this grant with \$109,000. (04-1439)

Protecting the Nisqually River shoreline **\$596,566**

The Nisqually Land Trust will use this grant to purchase 264 acres of Nisqually River shoreline and wetlands north of Yelm, and to restore natural floodplain functions and fish access to the Powell Creek watershed. The project will result in the protection of nearly 3 miles of Nisqually River shoreline, fish habitat, and a major floodplain wetland complex at the confluence of the Nisqually River and Powell Creek. This is the greatest length of Nisqually River shoreline in private ownership. The wetland complex is the most substantial complex of its kind on the Nisqually River. After buying the land, the land trust will restore the area by removing three Powell Creek culverts and a concrete bridge abutment on the Nisqually River. Powell Creek drains a forested area in southeast Thurston County and the culverts are migration barriers to salmon. By removing them, connectivity to the single largest off-channel complex in the entire Nisqually River basin will be restored. The restoration project also will make 3 miles of spawning and rearing habitat accessible for coho and Chinook salmon as well as steelhead and cutthroat trout. The Nisqually Land Trust will match this grant with \$700,000 in cash, cash donations, donated property interest and a local grant. (04-1637)

Removing a culvert on Adams Creek **\$61,959**

The South Puget Sound Salmon Enhancement Group will use this grant to remove a culvert on Adams Creek, which originates in wetlands and flows 1.5 miles to Gull Harbor, about 5 miles north of downtown Olympia. The culvert will be replaced with a full span rail car bridge, opening up 1 mile of upstream habitat for coho, chum and cutthroat. The grant will provide financial and technical assistance to private landowners living on Adams Creek. The salmon group will match this grant with \$11,000 in donated equipment and labor. (04-1387)

Wahkiakum County **\$269,485**

Restoring habitat in the Grays River **\$269,485**

The Grays River Habitat Enhancement District will use this grant to place one large rock structure, six smaller rock structures and large woody debris in the Grays River near the bridge, as a way to create spawning habitat for salmon. The placement of these structures in the river will create a series of eight shallow pool areas. The river is home to Chinook, chum, coho and steelhead. Because of the river's recent migration in this area, shoreline plants, other than grass and blackberries, have been washed away. This results in unnecessary heating of the water through this reach and removal of all trees and plants that would provide shade and cover. The addition of large woody debris will provide places for salmon to hide from predators. The entire 5-acre area, which is privately owned, will be planted with Western red cedar, dogwood, willow, Douglas fir, western hemlock and other suitable shade and cover trees and plants. The district will match this grant with \$46,833. (04-1448)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Walla Walla County \$558,898

Studying salmon and identifying restoration projects \$29,325

Walla Walla County will use this grant to study habitat conditions on the Washington portion of the Little Walla Walla River and its tributaries and identify habitat restoration projects for steelhead and spring Chinook. The spring source creeks and distributaries that enter the Walla Walla River south and west of Walla Walla/College Place are an important potential habitat area for steelhead and spring Chinook but it is unknown whether spawning has been successful or whether the areas is used primarily for rearing. The study will help determine that. Walla Walla County will match this grant with a \$5,175 federal grant. (04-1604)

Improving fish passage \$122,829

The Walla Walla County Conservation District will use this grant to improve fish passage at the Gose Street bridge, which is 5.3 miles above Mill Creek's confluence with the Walla Walla River. The Mill Creek drainage has 52 miles of stream habitat but there are four barriers that prevent most adult steelhead, Chinook salmon and bull trout from migrating. The Walla Walla County Conservation District will match this grant with \$25,000 from federal and private grants. (04-1605)

Improving fish passage at Hofer Dam \$141,201

The Walla Walla County Conservation District will use this grant to improve fish passage at Hofer Dam. The dam is a barrier to salmon migrating from the ocean to spawning grounds in the Touchet River and to young fish returning to the ocean. This project will fund a feasibility study, engineered design and a cost estimate for construction. The dam is about 4 miles above the mouth of the Touchet River. The Touchet River, which is the largest tributary to the Walla Walla, provides habitat for mid-Columbia steelhead, bull trout and spring Chinook. The Walla Walla County Conservation District will match this grant with another \$21,198 state grant. (04-1606)

Improving fish passage at Kooskooskie Dam \$142,856

The Tri-State Steelheaders will use this grant to modify a dam in the upper Mill Creek watershed east of Walla Walla and restore adjacent shoreline. In the early 1900s, a concrete diversion dam was built on Mill Creek, near Kooskooskie, for the city's water system. Changes to that system have left the dam unused for more than 40 years. Removal of the dam (partial or complete) will eliminate barriers to fish migration and open 14 miles in the upper Mill Creek watershed to spawning and rearing by steelhead, bull trout, spring Chinook and other fish that provide food for salmon. The Tri-State Steelheaders will match this grant with \$624,75 in donated labor and federal and state grants. (04-1379)

Protecting Coppei Creek \$26,898

The Tri-State Steelheaders will use this grant to purchase a conservation easement on about 40 acres in the Coppei Creek drainage in eastern Walla Walla County. By protecting the acreage in a permanent conservation easement, the spring-fed drainage will be protected on both sides along its entire 1-mile length from development, livestock use and commercial agriculture. The easement will protect a perennial spring that feeds into the steelhead-bearing north fork of Coppei Creek. The shoreline and upland vegetation will be maintained with future habitat enhancement planned. The Tri-State Steelheaders will match this grant with a \$8,943 state grant. (04-1539)

Measuring landowner interest in conservation easements \$30,017

The Blue Mountain Land Trust will use this grant to assess landowner interest in conservation easements, preventing degradation and promoting protection of important fish habitat. The trust will focus its efforts on the Snake River drainages: Walla Walla River, Coppei Creek and Touchet



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

River between Waitsburg and Dayton, where there is summer steelhead spawning and rearing. It also will focus on Mill Creek where there are spring Chinook, steelhead and bull trout. The Blue Mountain Land Trust will match this grant with \$9,616 in a private grant and donated equipment and labor. (04-1617)

Protecting land along the Touchet River **\$65,772**

The Blue Mountain Land Trust will use the grant to purchase a conservation easement on 130 acres of farmland and 69 acres of recently improved shoreline funded through the Conservation Reserve Enhancement Program (CREP) on the lower Touchet River. The permanent conservation easement will not only protect the more than \$213,000 CREP installment along 2 miles of stream, but also will prevent future subdivision and development of the agricultural lands. The landowner is a willing partner. A recent analysis rated this area as one of the top eight areas that needed to be restored in the basin to benefit summer steelhead and spring Chinook salmon. The Blue Mountain Land Trust will match this grant with \$41,800 in donated labor and property interest and a private grant. (04-1619)

Whatcom County **\$1,150,679**

Buying some of the best remaining salmon habitat on the Nooksack River **\$1,031,200**

The Whatcom Land Trust will use this grant to buy 2,500 acres, called the South Fork Crown property, covering 7.75 miles of the best remaining early Chinook salmon spawning habitat in the south fork of the Nooksack River. The land abuts 3,991 acres immediately upstream that is protected by Seattle City Light and contributes to 650 acres of previously protected salmon habitat 1 mile downstream. This project doubles the miles of protected salmon habitat and quadruples the number of protected acres along the south fork. Five species of salmon and three species of trout and char spawn in this reach of the south fork. Chinook salmon and bull trout are listed as threatened with extinction under the federal Endangered Species Act. Fishery biologists have identified this area as the most productive spawning habitat on the river for the threatened south fork early. Whatcom County will match this grant with \$300,000. (04-1610)

Designing restoration projects on the south fork of the Nooksack River **\$119,479**

The Natural Resources Department of the Lummi Indian Business Council will use this grant to provide preliminary designs for salmon habitat restoration projects in the south fork of the Nooksack River. This 18-mile reach, extending from the Saxon Road bridge below Skookum Creek upstream to a natural waterfall that blocks all but steelhead and bull trout, has been designated as the highest priority for habitat restoration for south fork Nooksack early Chinook salmon. The south fork early Chinook is one of two Chinook populations in the Nooksack River that are considered essential for recovery of Puget Sound Chinook, which are threatened with extinction. Projects developed through this grant will address issues of habitat diversity and quantity, channel stability and water quality. The Lummi Nation is partnering with the Nooksack Tribe and Whatcom Land Trust. The Lummi Indian Business Council will match this grant with \$22,477 in federal and tribal funding. (04-1487)



Salmon Recovery Funding

Fifth Round Projects Approved for
Funding
December 2004

Yakima County

\$323,698

Replacing fish barriers on Tepee Creek

\$176,713

The Yakama Nation will use this grant to replace three culverts that are barriers to fish migration in Tepee Creek on the Yakama Reservation. Tepee Creek, a tributary to White Creek in the Klickitat River subbasin, provides important spawning and rearing habitat for mid Columbia River steelhead. Replacing the barriers will provide salmon with access to 8.7 miles of upstream habitat. The tribe will match this grant with \$75,804 in donated labor and materials. (04-1716)

Preventing development along Cowiche Creek

\$146,985

The Washington Department of Fish and Wildlife will use this grant to buy up to 250-foot conservation easements on both sides of the south fork of Cowiche Creek, southwest of Tieton. This easement will protect stream and shoreline habitat, stream channel migration zones and floodplain functions along south fork of Cowiche and Reynolds creeks. Acquiring conservation easements along the creek will protect more than 8 miles of critical, high quality stream habitat for steelhead and resident fish. Protection of this vital habitat is needed because the landowner is interested in selling the property and has voiced an interest in preserving the land's environmental values. The department will match this grant with \$27,000. (04-1691)