

Coastal Region
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Coastal Region 2017 – 2018 Fish & Wildlife Project List

Our Coastal Region Board approved \$1.75 million for 28 fish and wildlife projects to be implemented April 1, 2017 – March 31, 2018. First Nations, stewardship groups, consultants, and agencies are leading the 19 fish and 9 wildlife projects that will help conserve and enhance fish and wildlife impacted by BC Hydro dams.

Salmon species – including Sockeye, Chum, Chinook, Pink, Coho and Kokanee – will be the focus of several projects approved by our Coastal Region Board. Bobcats, turtles, herons, bats, wolverines, amphibians and other species will benefit from these 28 projects. Several projects focus on endangered species including Vancouver Island Marmots, Spotted Owls and Whitebark Pine trees.

About our 2017 – 2018 project list

This is a final list of projects conditionally-approved by the FWCP's Coastal Region Board as of April 1, 2017. These approved budgets are to support the delivery of fish and wildlife projects, and do not include the FWCP administration or communications budget. The total number of projects approved for 2017 – 2018 includes budgets approved for future work this fiscal year to be further defined by the regional Boards (i.e., directed projects).

Grant-based fish and wildlife project descriptions are based on information provided in the lead proponent's 2017-2018 grant application.

Directed projects reflect regional conservation priorities and have been identified by our regional Boards for implementation through a request for proposals.

Provincial fish & wildlife projects

Our three regional boards – Coastal, Columbia and Peace – approved funding for 102 fish and wildlife projects valued at \$9.4 million for 2017 - 2018. Each project went through a three-stage review and evaluation process prior to a final decision by our local Board. Each project addresses one or more conservation priorities in our action plans.

Contact us

Contact Julie Fournier, Coastal Region Manager at 604-528-7998 or <u>Julie.fournier@bchydro.com</u> to learn more about our work in the Coastal Region. <u>Subscribe</u> and stay informed about the projects we fund and how you can apply for a grant.

Learn more at fwcp.ca



	Project ID	2017 - 2018 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
1	COA-F18-F-2385	Supporting anadromous salmon in Alouette River Watershed Alouette Watershed Sockeye-fish passage Feasibility-year one The Alouette River Sockeye Re-Anadromization Program (ARSRP) is a joint initiative between the Katzie First Nation, ARMS, BC Hydro, the Ministry of Environment (MOE), Fisheries and Oceans Canada (DFO), and local stakeholders. That works to promote the reestablishment of anadromous Alouette Sockeye and investigate the feasibility of fish passage at Alouette Dam. This project will: 1. Undertake a peer review and a formal DFO review of the ARSRP program and review the MOE's Nerkid Model to determine if it can accurately forecast Sockeye restoration feasibility. 2. Monitor adult returns and juvenile outmigration necessary for the evaluation of heritability and for eventual FWCP endorsement. 3. Determine the availability of spawner habitat to confirm it can support a self-sustaining population.	Alouette River Management Society	\$ 137,877	Research and Information Acquisition	Alouette Salmonid Action Plan	Alouette
2	COA-F18-F-2504	Identifying opportunities to optimize fish passage in Coastal Region watersheds Fish Passage Data Analysis This project will conduct a background literature and database review of fish passage work conducted to date in the FWCP's Coastal Region watersheds. In addition a GIS exercise will be conducted to screen restoration candidates by modelling habitat potential upstream of all project area crossings identified as barriers in the Provincial Stream Crossing Inventory System database, based on key habitat parameters and fish species present. The best potential opportunities for restoration will be compiled into table format with key information available (e.g., species present, habitat gain, photo links, background report links, agency responsible for road, etc.). This work is intended to serve as a catalyst to the restoration of fish passage into critical habitat areas for priority species.	Masse Environmental Consultants Ltd.	\$ 5,000	Habitat-based Actions	Alouette Salmonid Action Plan	Region Wide
3	COA-F18-F-2460	Restoring habitat in Ash River Watershed Ash Watershed Habitat Restoration Planning and Engagement This project will facilitate the engagement of First Nations, landowners, community groups, and private parties with the purpose of establishing objectives for the development of an integrated habitat restoration plan for the Ash River Watershed. Information acquisition with respect to fish habitat status and stock status will be completed to provide a shared understanding of the status of the watershed and the fundamental information required for the development of the restoration plan.	Hupacasath First Nation	\$ 5,000	Research and Information Acquisition	Ash Salmonid Action Plan	Ash

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	Project ID	2017 - 2018 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
4	COA-F18-F-2387	Removing invasive plants in Bridge-Seton River Watershed LRISS Aquatic Invasives Project Aquatic invasive species threaten to take over riparian and wetland areas in the Bridge-Seton Watersheds. Over the last two years, the Lillooet Regional Invasive Species Society (LRISS) has, in our work funded by the FWCP, found invasives in several lakes, namely Yellow Flag Iris, Knotweed, and Himalayan Blackberry. Manual removal of Yellow Flag Iris is very labour intensive, but eradication is an attainable goal. This project will continue to remove invasives to protect shoreline and monitor sites that have been treated. LRISS is in partnership with local stakeholders and First Nations to complete this work. The project activities fall within the priority goals as set out in the LRISS Aquatics Action Plan for the region.	Lillooet Regional Invasive Species Society	\$ 9,980	Research and Information Acquisition	Bridge-Seton Riparian Wetlands Action Plan	Bridge-Seton
5	COA-F18-F-2438	Improving fish habitat at Gates Creek Gates Creek Level 2 Fish Habitat Survey The Gates Creek Level 2 Fish Habitat Survey will generate restoration prescriptions for fish habitat in Gates Creek.	Lillooet Tribal Council	\$ 25,320	Research and Information Acquisition	Bridge-Seton Salmonid Action Plan	Bridge-Seton
6	COA-F18-F-2383	Improving spawning habitat in Campbell River Elk Falls Canyon Spawning Gravel Bulk Delivery - Year Two With the new bulk gravel delivery system in place in Elk Falls Provincial Park (completed and used in 2016), this proposal aims to provide funding for the second year of major gravel additions to the Upper Canyon Reach of the Campbell River. Using the new delivery system, approximately 200 m3 of gravel will be added to the first pool tail-out. Based on the 2016 project, costs per-unit of gravel is about 40% of the helicopter method. This gravel will provide valuable spawning habitat for all species of salmon and trout. Also, as more gravel is added to the canyon over time, the habitat will become more gravel- rich, increasing the spawning capacity further. Given the infrastructure investment by the FWCP and others, this is a logical step forward in mitigating the gravel recruitment issue in this system.	British Columbia Conservation Foundation	\$ 49,073	Habitat-based Actions	Campbell Salmonid Action Plan	Campbell
7	COA-F18-F-2421	Restoring fish habitat in Campbell River Watershed Quinsam River Fish Habitat Restoration Plan The Lower Quinsam River Fish Habitat Restoration Plan will provide a list of achievable and prioritized habitat restoration projects. The restoration plan will focus on the Quinsam River, upstream of the hatchery fence to the outlet of Lower Quinsam Lake. This reach is approximately 24-kms long. The deliverable will be a summarized list of specific projects outlining project components, construction details and limitations, estimated costs, and priority for completion. The techniques will incorporate a range of accepted standards for habitat restoration, including instream habitat, riparian habitat, tributary enhancement, wetland connectivity, water-quality enhancements, and habitat conservation, where appropriate.	A-Tlegay Fisheries Society	\$ 27,885	Research and Information Acquisition	Campbell Salmonid Action Plan	Campbell

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	Project ID	2017 - 2018 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
8	COA-F18-F-2492	Creating habitat for salmon in Cheakamus River Watershed Kiwi Channel Connector & Gorbuscha Channel Complex Project This project builds on the work initiated in the 2016-17 fiscal year (which included upgrades to the intake at Far Point and improved weirs, flows, and channel works) by creating a new extension at the south end of the Kiwi Channel South into what will be the new Kiwi Connector Channel, which will connect into the new Moody's Channel extension (part of the Evans Creek Re- Watering project). As well, work will be undertaken on the Gorbuscha Channel to improve water flows through this complex. This project will provide new spawning and rearing habitat for Coho, Chum, Pink, Chinook, and Steelhead Salmon and is expected to improve Coho productivity by 10,000 smolts once it is fully realized. This proposal is the second of three in a three-year phased project.	Squamish River Watershed Society	\$ 147,735	Habitat-based Actions	Cheakamus Salmonid Action Plan	Cheakamus
9	COA-F18-F-2496	Improving flows in Squamish River Squamish River Training Dyke Fish Passage Upgrades In 1970, BC Rail constructed a dyke to train the Squamish River against the western bank in order to build a coal port. By 1972, the "training dyke" had been constructed, but the government of the day shut down all future operations. From 1970–1999, next to no water flowed across the dyke as there was only one small culvert that was obstructed with woody debris by the early 1980s. In 1999 the Squamish River Watershed Society, in partnership with Fisheries and Oceans Canada, commenced a program to install two, three-metre diameter culverts at key locations along the training dyke to reconnect the Squamish River with the Central Estuary channel and provide tidal flows once again. Currently, many of these culverts are underperforming and are in need of replacement (e.g., Clear Span Bridge).	Squamish River Watershed Society	\$ 5,000	Habitat-based Actions	Cheakamus Salmonid Action Plan	Cheakamus
10	COA-F18-F-2362	Restoring Sockeye in Coquitlam Reservoir Sockeye Smolt Passage Design for Coquitlam Reservoir Forebay BC Hydro, Metro Vancouver, First Nations, Fisheries and Oceans Canada (DFO), the Ministry of Environment (MOE), and local municipalities have formed the Kwikwetlem Salmon Restoration Program (KSRP) with the goal of restoring anadromous fish to the Coquitlam Watershed. A primary KSRP goal is the restoration of Sockeye Salmon in the Coquitlam Reservoir. A critical uncertainty identified for this goal is the feasibility of providing safe and effective downstream passage for smolts from the reservoir to the lower river. Using data from other fish passage facilities and site-specific information, this project will evaluate passage feasibility and develop a concept-level design and cost estimate for a chosen alternative. The project will also address potential operational modifications to attract smolts to the outlet at the south end of the reservoir.	R2 Resource Consultants, Inc.	\$ 93,000	Research and Information Acquisition	Coquitlam Salmonid Action Plan	Coquitlam

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	Project ID	2017 - 2018 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
11	COA-F18-F-2485	Tagging salmon in Coquitlam Reservoir Sockeye Smolt Behaviour in the Coquitlam Reservoir Forebay This project proposes to carry out an Acoustic Telemetry Study using 100 tags deployed in hatchery-raised Coquitlam Reservoir Kokanee/Sockeye Salmon smolts that will be released into the Coquitlam Reservoir forebay area. The smolts will be tracked using an array of time-synchronized receivers with overlapping fields of detection resulting in a high-detail behavioural forebay assessment. In addition, 500 Chinook Salmon smolts raised in a Coquitlam River hatchery will be released close to or into the Coquitlam Dam Sluice Tower to assess tunnel passage mortality. Forebay behaviour and tunnel passage mortality will be assessed during high- and low-flow scenarios, and will inform the feasibility assessment of a dam passage structure for Sockeye smolts.	LGL Limited Environmental Research Associates Ltd.	\$ 96,536	Research and Information Acquisition	Coquitlam Salmonid Action Plan	Coquitlam
12	COA-F18-F-2495	Improving spawning habitat in Jordan River Gravel Placement in Reach 1 of the Jordan River (Phase I) The goal of this project is to place high-quality spawning gravel in Reach 1 of the Jordan River at Prescription Site 5 in the Jordan River Restoration Plan (Burt and Hill, 2015). This project represents Phase 1 of gravel placement for this site, which involves the removal of existing poor quality gravels and interspersed cobbles and replacing them with high-quality spawning material while maintaining the existing grade in the final product.	Pacheedaht First Nation	\$ 66,361	Habitat-based Actions	Watershed Plan	Jordan
13	COA-F18-F-2299	Supporting Chinook stocks in Puntledge River Watershed Puntledge summer Chinook parentage-based tagging study Year Four Genetic methods, known as parentage-based tagging, will be used to identify individual summer-run Chinook Salmon back to parental crosses (both in the hatchery and in the wild) to study the effects of parental Chinook return migration time and bacterial kidney disease (BKD) status on their progeny. The identification of an individual fish to its parents will enable the examination of the influences of both parental characteristics (migration timing, BKD infection load) and release group/strategy on survival in those programs. It will also provide Fisheries and Oceans Canada (DFO) guidance for the development of appropriate management actions focused on improving wild and hatchery summer Chinook productivity and preserving the genetic integrity of the stock.	K'omoks First Nation	\$ 35,688	Species-based Actions	Puntledge Salmonid Action Plan	Puntledge

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	Project ID	2017 - 2018 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
14	COA-F18-F-2375	Upgrading fish monitoring equipment at Comox Lake Reservoir Comox impoundment dam adult enumeration equipment upgrade. The adult salmon video enumeration equipment at the Comox impoundment Dam—funded by the FWCP—is now ten years old and requires replacement. The current setup is prone to algal fouling, making fish identification increasingly difficult. Debris accumulation on the bar screens surrounding the camera tunnel can obstruct fishway flow, forcing all water through the tunnel and making fish passage difficult. To remedy this, the fishway must be drained during infrequent periods of low lake levels. This requires a significant amount of planning, and BC Hydro staff involvement to implement. This project includes purchasing new video equipment, fabricating a new camera retrieval system, and installing additional screens that will allow operation and maintenance of the equipment without having to drain the fishway.	K'omoks First Nation	\$ 18,440	Monitoring and Evaluation	Puntledge Salmonid Action Plan	Puntledge
15	COA-F18-F-2398	Improving fish passage at Courtenay Simms Park Side Channel Habitat Enhancement for Fish This project involves the reworking of a high-priority habitat restoration project on a tidally-influenced section of the Courtenay River. The original project, creating off channel habitat for salmonids, resulted in the development of a blind channel and a pond connected by a culvert (the pond is then connected back to the river by a small pipe that does not allow for salmonid access). The project was not successful as the culvert is not "fish friendly," and was installed too high and only flows at very high tide levels. Fish and wildlife habitat will be enhanced through the removal of the culvert—to be replaced with a larger "fish friendly" one at a lower elevation—and the installation of a pedestrian bridge to connect the pond to the river on the other side.	Comox Valley Project Watershed Society	\$ 112,686	Habitat-based Actions	Puntledge Salmonid Action Plan	Puntledge
16	COA-F18-F-2412	Developing a fish passage plan at Wilsey Dam Plan for Fish Passage at Wilsey Dam With the construction of the Wilsey Dam in 1928, the Middle Shuswap River was divided into a lower reach that provided spawning and rearing habitat for anadromous salmon, and an upper reach that did not. For over 40 years, various agencies and community groups have advocated for fish passage past the dam and have undertaken studies to demonstrate environmental and technical feasibility. This project intends to bring this stakeholder-driven process to closure by developing a plan for fish passage. The plan will include the most recent cost estimates for the options considered and essential technical (engineering) information required to ensure feasible implementation. The plan will be part of Steps 5–7 of the BC Hydro Fish Passage Decision Framework.	Whitevalley Community Resource Centre Society	\$ 99,903	Research and Information Acquisition	Shuswap Salmonid Action Plan	Shuswap

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	Project ID	2017 - 2018 Grant-Based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
17	COA-F18-F-2481	Building awareness of Chinook Salmon Conservation of Shuswap River Chinook through education This project aims to educate hundreds of local school children, teachers, and parents through hands-on experiences with Shuswap River Chinook. This project will strive to provide knowledge, understanding, and respect for our Chinook Salmon and the habitats and ecosystem they require for survival. The education provided will give the participants a first-hand look at our "kings." With these experiences, this project will be not only be educating the public but creating salmon stewards.	Kingfisher Interpretive Centre Society	\$ 5,331	Habitat-based Actions	Shuswap Salmonid Action Plan	Shuswap
18	COA-F18-F-2396	Restoring salmon habitat in Stave River Watershed Stave River Watershed-Restoring Salmon Habitat This project will continue creating tidally-influenced channels to support salmon habitat, replanting the freshwater estuary, and conducting water-quality and fish monitoring—including Salish Sucker recon to inform habitat use and knowledge gaps. Benefits are increased habitat for Coho, Pink, Chum, Sockeye, and Chinook, and improved estuary conditions. It aligns with the FWCP Salmonid Action Plan Conservation Objective to ensure a productive and diverse aquatic ecosystem and maintain or improve opportunities for sustainable use. It supports inventory efforts for the Salish Sucker and aligns with the FWCP Riparian and Wetlands Action Plan to ensure productive and diverse wetland and riparian ecosystems.	Fraser Valley Watersheds Coalition	\$ 78,894	Habitat-based Actions	Stave Salmonid Action Plan	Stave

Fish Project Total: \$ 1,019,710

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	Project ID	2017 - 2018 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
19	COA-F18-W-2439	Restoring species of conservation and cultural value in Alouette and Pitt River watersheds Restoring species of conservation and cultural value An eco-cultural restoration plan for Katzie traditional territory (Alouette and Pitt River watersheds) has been developed that integrates the principles of restoration science and adaptive management with Katzie traditional knowledge and values. This five-year project proposes to implement the plan at riparian wetland sites throughout the Alouette Watershed. In year one of the project (2016), habitat was restored at two sites to support healthy populations of five culturally-valued species, 12 species of conservation concern, and two keystone species. In 2017-18, the plan is to continue these efforts at a third site, thereby totalling 12 ha of restored wetland habitat, while implementing an effectiveness monitoring plan to measure success in meeting our eco-cultural restoration goals.	Katzie Development Limited Partnership	\$ 62,500	Habitat-based Actions	Alouette Riparian Wetlands Action Plan	Alouette
20	COA-F18-W-2392	Supporting recovery of Northern Spotted Owls Northern Spotted Owl Captive Breeding Program The Northern Spotted Owl is one of Canada's most endangered bird species. Its entire Canadian range occurs in southwestern British Columbia. Though historic estimates suggest that as many as 1,000 Northern Spotted Owls occurred in the province pre-European settlement, fewer than 30 individuals remain in Canada, with approximately half of these owls residing in captivity at a captive breeding facility in Langley, BC. The Program's mission is to prevent this species from becoming extirpated from Canada by releasing captive-raised owls back into recovery habitats protected for the species in the province. The goal of this project is to produce captive-born Northern Spotted Owls for release into the Bridge-Seton Watershed to recover the local population (restore a minimum of 20 individuals).	British Columbia Conservation Foundation	\$ 68,892	Species-based Actions	Bridge-Seton Species Action Plan	Bridge-Seton
21	COA-F18-W-2394	Testing artificial fisher dens in Bridge-Seton Watershed Fisher Artificial Reproductive Den Box Study The goals of this project are to determine the extent that artificial den boxes will be used by reproductive fishers, identify the degree to which these devices will mitigate losses of natural denning habitat, provide a science-based mitigation technique to address the loss of fisher habitat, and engage stakeholders that can influence fisher habitat in the conservation efforts for this species.	Davis Environmental Ltd.	\$ 41,120	Species-based Actions	Bridge-Seton Species Action Plan	Bridge-Seton

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	Project ID	2017 - 2018 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
22	COA-F18-W-2409	Restoration of the Lillooet Sub-Population of Norther Spotted Owls Restoration of the Lillooet Sub-Population of Norther Spotted Owls The project goal is to restore the Northern Spotted Owl population within the northern extent of the Lillooet Sub-population of Spotted Owls. This will be achieved by conducting inventories to find and protect the few remaining Northern Spotted Owls in the area, and by releasing captive-raised Spotted Owls back into habitats protected for the species.	Ministry of Forests, Lands and Natural Resource Operations	\$ 67,370	Habitat-based Actions	Bridge-Seton Species Action Plan	Bridge-Seton
23	COA-F18-W-2472	Restoring endangered Whitebark Pine in Bridge-Seton River Watershed Integrative Whitebark Pine Ecosystem Restoration Initiative Whitebark Pine is an endangered keystone species of high-elevation ecosystems. It is an important food source of many species of wildlife, most notably the Grizzly Bear and Clark's Nutcracker. It is endangered due to the introduced White Pine Blister Rust, Mountain Pine Beetle, fire, and climate change. The most effective means for Whitebark Pine recovery is through promoting the regeneration of blister rust-resistant seedlings via planting or natural means, retaining healthy trees on the landscape, and ensuring the perpetuation of natural recruitment. This project will directly aid in recovery by planting seedlings grown from potentially rust-resistant parent trees:	Lillooet Tribal Council	\$ 21,829	Habitat-based Actions	Bridge-Seton Species Action Plan	Bridge-Seton
24	COA-F18-W-2305	Supporting recovery of Vancouver Island Marmot Vancouver Island Marmot – Buttle Lake Supplementation & Monitoring 2017 The Vancouver Island Marmot is an iconic and endemic B.C. species, and also the most endangered mammal in Canada. This project is a strategic, statistically informed continuation of efforts to restore marmots to their historic habitat in the mountains around Buttle Lake in the Campbell, Puntledge, and Ash watersheds. Guided by the results from previous projects (2007-16), spring supplemental feeders will be installed at several locations to improve the likelihood of reproduction. A select group of captive-born and wild-born marmots will be released to vulnerable colonies in the region, bolstering the metapopulation and creating additional opportunities for in situ reproduction. Monitoring will increase our understanding of this marmot metapopulation and will inform future recovery efforts.	Marmot Recovery Foundation	\$ 60,000	Species-based Actions	Campbell Species Action Plan	Campbell

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	Project ID	2017 - 2018 Grant-Based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
25	COA-F18-W-2482	Supporting mesocarnivores in Wahleach and Stave River watersheds Mesocarnivore inventory in the Wahleach and Stave Watersheds Little is known of the occupancy, distribution, or habitat use of mesocarnivores in the Wahleach and Stave watersheds. This project will provide baseline inventory information on mesocarnivores in these watersheds and characterize human activities and potential threats facing mesocarnivore populations. The project will assess gaps in our understanding of ecological factors that hinder or support sustainable mesocarnivore populations in these watersheds, and provide solutions to overcome identified barriers. Finally, the project will develop key partnerships to build support for the sustainability of mesocarnivores in southern British Columbia and engage these project partners to ensure that project direction and extension tools support their specific information needs.	Ministry of Environment	\$ 34,238	Research and Information Acquisition	Watershed Plan	Stave and Whaleach
			Wildlife Project Total:	\$ 355,949			

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	Project ID	2017 - 2018 Fish and Wildlife Directed Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Watershed
26		Acquiring lands for conservation purposes The Coastal Region Board has approved funding for the future purchase of lands for conservation purposes in the Coastal Region.		\$ 312,232	Land Acquisition		Region-Wide
27		Managing Conservation Lands in the Coastal Region The Coastal Region Board has approved funding for managing conservation lands.		\$ 50,000	Land Acquistion		Region-Wide
28		Supporting Aquaculture at Puntledge Hatchery FWCP provides annual funding to the Puntledge River hatchery to support Summer Chinook productionin the watershed.		\$ 17,000	Species-Based Action	Species of Interest	Puntledge

Directed Project Total: \$ 379,232

2017-2018 PROJECT SPEND TOTAL: \$1,754,891

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