FWCP
Fish & Wildlife
COMPENSATION PROGRAM

Project Outcomes

Coastal Region
2023–2024

fwcp.ca

BC Hydro

British Columbia

Fisheries and Oceans Canada | Pêches et Océans Canada

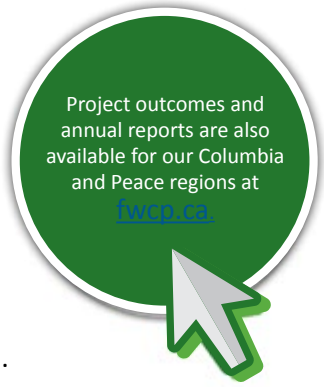
The FWCP is a partnership between BC Hydro, the Province of B.C., Fisheries and Oceans Canada, First Nations, and public stakeholders to conserve and enhance fish and wildlife in watersheds impacted by BC Hydro dams.

Front cover: Gates Creek (F. Lessa); Northern spotted owl 2023 parents (NSOBP); Campbell River Estuary cleanup (Greenways Land Trust); marmots (Adam Taylor); Whitebark pine cones (K. Wright); Chinook (iStock randimal); Preservation Creek (Cumberland Community Forest Society); turtle hatchlings (R. Maichin)

FWCP fish and wildlife projects 2023–2024

Our Coastal, Columbia, and Peace region boards approved ~$10.2 million for 56 wildlife and 33 fish projects in 2023–2024. Each project aligns with our regional action plans, which reflect our strategic objectives, mission, and vision.

Read our story.



Coastal Region projects 2023–2024

In our Coastal Region, 31 projects were approved by our board for $2.13 million in 2023–2024.

Funding was approved for projects in eight of the 14 watersheds that make up our Coastal Region. Six projects were delivered in more than one watershed. See Table 1 for a breakdown of funding by watershed.

This year, approximately two-thirds or 64% of approved funding went toward habitat- and species-based projects, and the remaining 36% went toward securing high quality habitat (i.e., land securement) or filling important data gaps. Land securement purchases are reported in the year the FWCP receives the grant application for a land securement purchase. See Figure 1 for a breakdown of funding by project type.

Table 1: Projects approved by watershed*

Watershed	FWCP Funding	Number of projects
Alouette	$40,367	2
Bridge Seton	$157,393	3
Campbell	$145,536	3
Cheakamus	$420,250	2
Clowhom	$19,000	1
Coquitlam	$94,048	3
Puntledge	$248,690	5
Shuswap	$38,095	2
Multiple	$562,875	6
TOTAL	**$1,726,254**	**27**

*Does not include funds approved for land securement in 2023-2024, or two cancelled fish projects.

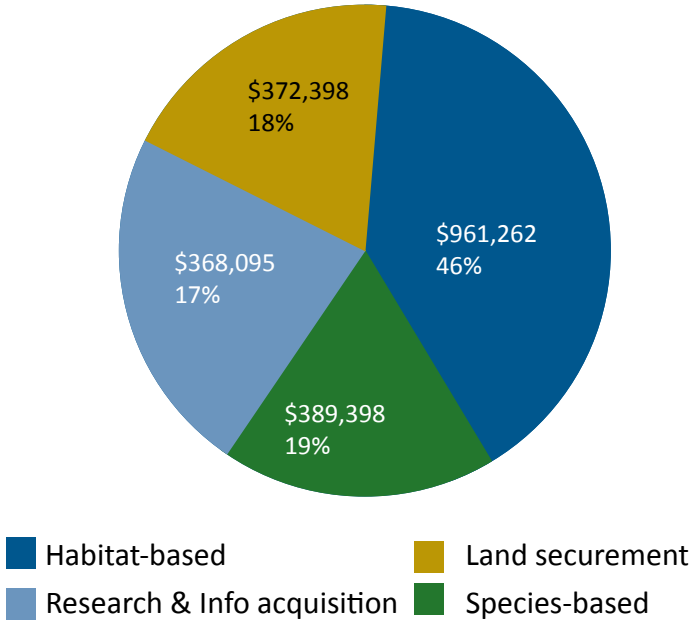


Figure 1: Breakdown of approved funding by action type (excludes two cancelled fish projects).

Project outcomes

Project outcomes for projects approved for 2023–2024 are summarized on the following pages.

We post final project reports on provincial databases so the results of projects we fund are available to everyone. Searchable spreadsheets of reports for each FWCP region are available at fwcp.ca/results.

Learn more about our projects

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Fish & Wildlife Compensation Program

Improving salmon stewardship in the Shuswap River Watershed

COA-F24-F-3885

Kingfisher Interpretive Centre Society

$15,000

Shuswap River Watershed

Species-Based Action

S. Bruce

Conservation of Shuswap River Chinook Through Education: This multi-year stewardship project aims to help protect Shuswap River Chinook by providing place-based, experiential education to thousands of local students.

Salmon conservation: 4,000 students receive stewardship education

More than 4,000 people received salmon-themed education.

Learn more

Improving fish passage in the Cheakamus River Watershed

COA-F24-F-3895

Squamish River Watershed Society

$415,250

Cheakamus River Watershed

Habitat-Based Action

John Buchanan

Squamish Estuary Lower Training Berm Modification – Stage 2: This multi-year project is focused on the restoration of declining Chinook salmon populations in the Salish Sea and reconciliation with the Squamish Nation on the loss of their historic village and lands within the estuary.

Improving fish passage in the Cheakamus River

Another 550 metres of a 1970s berm was removed this year, resulting in improved fish passage and access to 144 hectares of habitat for juvenile Chinook and other salmonids. Removing the berm also restores tidal and river flows between the Squamish River and the estuary.

More than 100,000 cubic metres of soil and rock removed from the berm was used to build up the Squamish oceanfront, stabilizing the upper Squamish River by Pilchuck Creek where the bank has eroded.

Learn more

Spawning habitat improvements below Elk Falls

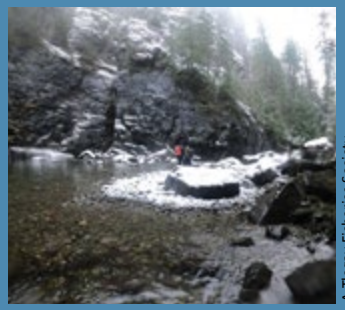
COA-F24-F-3899

British Columbia Conservation Foundation

$62,062

Campbell River Watershed

Habitat-Based Action



A-Tlegay Fisheries Society

Elk Falls Canyon Spawning Gravel Delivery: This project will add between 50 and 200 cubic metres of gravel to the Campbell River, just downstream of Elk Falls.

Report pending

Learn more

Restoring riparian habitat in the Puntledge River Watershed

COA-F24-F-3903

Comox Valley Project Watershed Society

$177,000

Puntledge River Watershed

Habitat-Based Action

Comox Valley Project Watershed Society

Kus-kus-sum Unpaving Paradise Year 3: This multi-year project on the Kus-kus-sum conservation lands will focus on removing a steel-cladded retaining wall bordering the Courtenay River and restoring a decommissioned sawmill site back to its pre-disturbed state.

Restoration continues at industrial site

In year three of this restoration project, re-grading of the site was completed, topsoil was added, and channels and pools were created on site. Native planting continued and habitat complexing progressed.

Removing the steel wall along the shore is an important part of this industrial restoration and planning for its removal was initiated.

Progress continued towards the overarching goal of returning the former industrial mill site to natural state and rematriating the property to the K'ómoks First Nation despite setbacks and delays due to contaminated soils.

Learn more

Using technology to improve fish passage

COA-F24-F-3905

MakeWay Charitable Society

$75,178

Coquitlam-Buntzen Watershed

Habitat-Based Action

Z Sherker

Coquitlam River Floodgates and Salmon Passage Year 3: The final year of this multi-year project will use fish-tracking technology to assess juvenile salmon passage at three floodgates installed in the Coquitlam River Watershed.

Project improves floodgate operations for salmon

Monitoring is confirming the success—and failures—of different fish passage technologies in the Coquitlam River Watershed. When complete, the results of this multi-year project will inform how floodgates are used to manage floods and reduce impacts to salmon movements in the watershed.

This project has resulted in an increased understanding of fish passage at three different types of floodgates, and it has increased the passage of fish at a specific location. As a result of this project, a five-centimetre adjustment was made to an existing floodgate. Monitoring in 2024 will confirm if this floodgate adjustment improves salmon access.

Learn more

Studying salmon habitat in the Cheakamus River Watershed

COA-F24-F-3906

Squamish River Watershed Society

$5,000

Cheakamus River Watershed

Habitat-Based Action

iStock

Groundwater Fed Off-Channel Study: This study will investigate the interactions between groundwater and surface water in the Mamquam River, a tributary to the Squamish River, to better understand how salmon survival can be improved in the Cheakamus River Watershed.

Project leads to irrigation changes at golf course to benefit salmon

This project confirmed changes in groundwater levels within the Squamish Valley Golf Club off-channel habitat are correlated to use of an irrigation pond.

As a result, golf course staff are looking at strategies to limit irrigation during late summer drought periods to reduce impacts to flows in off-channel habitat for salmon.

A gauge may be installed to ensure water levels do not drop below a target depth so that groundwater levels within the channels are not impacted. The results of this project will be the basis for future maintenance and restoration operations.

Learn more

Applying eco-cultural restoration techniques in the Campbell River Estuary

COA-F24-F-3932

Guardians of Mid Island Estuaries Society

$54,000

Campbell River Watershed

Habitat-Based Action

Tim Clermont

Eco-Cultural Restoration of the Campbell River Estuary: This multi-year eco-cultural restoration project builds on recent restoration efforts in the Campbell River Estuary and will reduce erosion and provide greater resiliency during peak flows.

Report pending

Learn more

Applying eco-cultural restoration techniques in the Puntledge River Watershed

COA-F24-F-3933

Guardians of Mid Island Estuaries Society

$52,690

Puntledge River Watershed

Habitat-Based Action

iStock imagine golf

Eco-cultural Restoration of the K'ómoks Estuary Year 4: This project will focus on restoration efforts led by the Guardians of Mid Island Estuaries Society and the K'ómoks First Nation Guardians to prevent further estuarine marsh degradation.

Report pending

Learn more

Monitoring for drought conditions in the Shuswap River Watershed

COA-F24-F-3937

Okanagan Nation Alliance

$23,095

Shuswap River Watershed

Research & Information Acquisition

ONA

Bessette Creek Streamflow Monitoring: To detect low streamflow in key salmon spawning locations, the project will maintain and monitor hydrometric stations on Bessette Creek, a tributary to the Shuswap River near Lumby.

Project provides important insights for managing flows for salmon in drought conditions

Data from monitoring stations on Bessette Creek in the Shuswap River Watershed confirm impacts to streamflow and salmon during drought conditions.

The project confirmed:

- Salmonid migration and spawning face challenges at Bessette Creek at Whitevale Road due to low streamflow in August and September, with a 0.16-kilometre dried reach in October 2023, indicating a need for management.
- Suboptimal conditions at Bessette Creek at Horner Road in August and September require strategies to improve streamflow.
- Reduced water release from Nicklen Creek below Nicklen Lake Dam worsened drought conditions in Bessette Creek, highlighting the need for adaptive water management.
- Significant thermal variations were noted, with more hot days at Nicklen Creek.

Learn more

Modernizing revegetation plans in the Bridge-Seton Watershed

COA-F24-F-3938

St'at'imc Government Services

$5,000

Bridge-Seton Watershed

Research & Information Acquisition

iStock randimal

Horseshoe Bend Riparian Revegetation Planning: This Seed Grant will be used to carry out a deeper investigation of an existing revegetation plan, incorporating new research into vegetation survival that considers climate change and riparian planting success.

Report pending

Learn more

Building community stewardship in the Alouette River Watershed

COA-F24-F-3940

British Columbia Wildlife Federation

$9,237

Alouette River Watershed

Habitat-Based Action

iStock Supercaliphotolistic

Fish Habitat Stewardship Workshops – Alouette River: Educational workshops will be held to engage and train community volunteers to become riparian stewards in their own communities.

650 square metres of riparian habitat enhanced and 52 riparian stewards trained

Fifty-two community members were trained as riparian stewards. One hundred and twenty native plants were planted and 650 square metres of riparian habitat in the Alouette River Watershed were enhanced.

Learn more

Reeve Slough reconnection and Kwikwetlem Historical Cemetery

COA-F24-F-3956

Kwikwetlem First Nation

$5,000

Coquitlam-Buntzen Watershed

Habitat-Based Action

M. Manson

Reconnecting Reeve Slough to the Coquitlam River: This Seed Grant project will collect initial information to determine the advanced planning and engineering requirements for the reconnection of the Reeve Slough to the Coquitlam River as well as to establish new salmon rearing habitat.

Plans to re-connect Reeve Slough to Coquitlam River progress

This grant helped fund the feasibility and efforts to complete the large-scale grant application, achieving the intended outcome.

Learn more

Improving fish passage in the Alouette River Watershed

COA-F24-F-3946-DCA

Alouette River Management Society

$31,130

Alouette River Watershed

Species-Based Action

ARMS

F24 Annual Fish Passage for Alouette River Watershed: Our Coastal Region board has made a 10-year commitment to support fish passage feasibility plans for the Alouette River based on the Fish Passage Decision Framework.

Best Alouette River sockeye return in 17 years

Thirty-one adult sockeye returned to the Alouette River Watershed to spawn in 2023, making this the highest run since monitoring started 17 years ago.

The adults measured an average of 55.75 centimetres at fork length. DNA results confirm that more than half of the returning adults were released as fry from Alouette Lake Reservoir.

Of the 31 fish that returned to spawn, 24 were trapped and released into Alouette Lake Reservoir to spawn. The remaining adults did not survive.

Learn more

Adding nutrients to the Puntledge River Watershed

COA-F24-F-4118-DCA

Courtenay and District Fish & Game Protective Association

$2,000

Puntledge River Watershed

Habitat-Based Action

Courtenay and District Fish & Game Protective Association

F24 Annual Chum Carcass Project: This is year two of a five-year project to support the distribution of chum salmon carcasses from a hatchery into the upper Puntledge River Watershed. Their decomposition will contribute marine-derived nutrients and energy that will benefit the entire food web.

More than 5,000 salmon carcasses distributed

Volunteers distributed 5,105 chum salmon carcasses at nine sites in the Upper Puntledge and Cruickshank rivers to contribute essential nutrients.

Learn more

Captive-raising Canada's most endangered owl species

COA-F24-W-3891

British Columbia Conservation Foundation

$152,393

Bridge-Seton Watershed

Species-Based Action

NSOBP

Northern Spotted Owl Captive Breeding Program: This multi-year project aims to prevent the extirpation of northern spotted owls in Canada by releasing captive-raised owls into areas protected for the species by the Province of B.C., including the Bridge-Seton River Watershed.

Endangered owl update: owls released into wild

Efforts to captive breed and raise endangered northern spotted owls continued this year. Two captive-raised owls were released into the wild. Monitoring of these owls will confirm their status after winter.

Seven chicks hatched and survived to the breeding season. Survivorship increased but fertility decreased this year.

Outreach continued and an average of 50,000 social media accounts were reached each month. Fifteen classroom presentations were delivered to almost 1,000 students and teachers.

Learn more

Recovering endangered Vancouver Island marmots

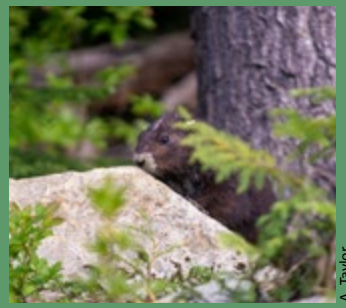
COA-F24-W-3896

Marmot Recovery Foundation

$12,685

Multiple Watersheds

Species-Based Action



A. Taylor

Translocating Vancouver Island Marmots to Strathcona Park 2023: This project will support the transfer of between two and six Vancouver Island marmots from Mount Washington into Strathcona Park.

Marmot update: population and colonies increase

This year four Endangered Vancouver Island marmots were translocated to two colonies in Strathcona Provincial Park.

Supplemental food was provided at 11 colonies and monitoring found 147 marmots in the Strathcona meta-population, including 113 within the boundaries of the park. The team confirmed that new colonies identified last year are expanding their use of available habitat.

Learn more

Restoring ecological function in the Campbell River Watershed

COA-F24-W-3900

Discovery Coast Greenways Land Trust

$29,475

Campbell River Watershed

Habitat-Based Action

Discovery Coast Greenways Land Trust

Restoring Ecological Function in the Campbell River Estuary: This multi-year project aims to help restore ecological integrity and function in the Campbell River Watershed by managing invasive plants in the estuary, including yellow flag iris, purple loosestrife, and Japanese knotweed.

2,950 kilograms of invasives removed from estuary

Multiple invasive plants were removed from the estuary, weighing 2,950 kilograms, including yellow flag iris, purple loosestrife, and Japanese knotweed which were prioritized for removal.

1,010 kilograms of yellow flag iris seedlings were dug out by hand and all mature plants have now been removed, depleting the seed bank. Purple loosestrife—390 kilograms—was removed along with many kilograms of canary reed grass, blackberry, broom, tansy, holly, laurel, dock, and ivy.

A hundred native trees and shrubs, plus 30 flowering plants, were planted.

Learn more

Preserving valuable habitat in the Comox Valley

COA-F24-W-3901

Comox Valley Land Trust

$325,000

Puntledge River Watershed

Land Securement

Comox Valley Land Trust

Morrison Headwaters Nature Preserve – Phase 2: This funding will support the Comox Valley Land Trust in efforts to acquire a 289-hectare piece of land to protect valuable habitat in the Comox Valley lowlands, vital habitat for one endangered species and 14 Species at Risk.

Land securement: 275 hectares protected in Puntledge River Watershed

This year, 275 hectares of wetland and riparian areas of high conservation value were purchased, including associated upland forests.

This protects in perpetuity the many ecological values in the Morrison Headwaters Nature Preserve.

Learn more

Recovering western painted turtles

COA-F24-W-3912

British Columbia Conservation Foundation

$142,320

Multiple Watersheds

Species-Based Action

B. Meunier

Western Painted Turtle Recovery in Lower Mainland Watersheds: The goal of this multi-year project is to support the recovery of the western painted turtle—B.C.'s only remaining native freshwater turtle species—in the Alouette, Coquitlam, and Stave River watersheds.

Turtle recovery continues in Lower Mainland

Many important monitoring, restoration, release, and stewardship actions continued this year in multiple Lower Mainland watersheds to support western painted turtles.

Twenty-one basking surveys were conducted at 11 sites and resulted in 79 habitat use observations. The team captured 38 turtles at five sites and conducted 421 hours of nest monitoring. Forty nests were identified, and some were protected with cages to foster natural recruitment.

Ninety-three head-started (i.e., captive-raised) turtles were released at three sites, and four nesting beaches were maintained or restored.

Learn more

Building a resilient bat population in the Clowhom River Watershed

COA-F24-W-3928

Sunshine Coast Wildlife Project

$19,000

Clowhom River Watershed

Habitat-Based Action

C. Lausen

Conservation of Bat Roosting Habitat in Clowhom Watershed: This project will carry out conservation projects to improve habitat for at-risk bat species in the Clowhom River Watershed near Sechelt.

57 bat roost counts completed and 19 new roosts located

This was a busy year for the project team:

- 19 new bat roosts were identified
- 57 bat roost counts were completed at 28 sites
- nine winter bat roost sites were identified
- 43 bat houses were checked for occupancy
- 12 school programs were conducted
- 60 new bat boxes were constructed by students and community volunteers for installation at suitable sites

Learn more

Evaluating White Nose Syndrome mitigation options

COA-F24-W-3929

Wildlife Conservation Society Canada

$60,370

Multiple Watersheds

Habitat-Based Action

A. Wong

Bat White Nose Syndrome in Southwest B.C.: Disease Mitigation and Monitoring of Impacts: This multi-year project will evaluate the use of a probiotic to reduce bat mortality in the event of White Nose Syndrome in colonies in the Cheakamus River, Coquitlam River, and Stave Lake watersheds.

Probiotic testing to mitigate White Nose Syndrome continues

This project achieved its goals for 2023, including applying probiotics to test colonies of bats.

The team assessed roost substrates and wing microbiomes of bats to assess coverage with probiotics bacteria.

This year the team also completed monitoring at five study sites for bat survival via PIT tag scans and used bat detectors to record winter activity of bats in nearby hibernation areas. Bat detectors were deployed and acoustic monitoring was conducted in three watersheds to gauge changes in abundance and activity patterns which may signal White Nose Syndrome and impacts on bats from this and other threats.

In addition, the team actively engaged local First Nation Guardians from the Kwikwetlem and Kwantlen First Nations in bat conservation and working with other groups including the B.C. Community Bat Program and B.C. government to leverage efforts in bat monitoring at roosts and disease surveillance.

Learn more

Conserving habitat for conservation

COA-F24-W-4112

Nature Conservancy of Canada

$350,000*

Bridge-Seton Watershed

Land Securement

F. Lessa

Preserving Valuable Habitat Near D'Arcy: Securing and conserving critical habitat in our Coastal Region.

Gates Creek Conservation Area expanded

Twenty hectares of high-value habitat near D'Arcy in the Bridge-Seton River Watershed has been secured. The land securement project, proposed to the Nature Conservancy of Canada by the N'Quatqua First Nation, includes valley bottoms and forested mountain slopes.

The area is a crucial corridor, connecting the threatened Stein-Nahatlatch grizzly bear population with the more numerous South Chilcotin grizzly bear population.

Gates Creek also provides valuable habitat for several species of salmon and trout. The conservation area now covers 130 hectares.

* This project was approved after March 31, 2024, using the land securement reserve fund.

Learn more

Carey Island Land Securement

COA-F24-W-4113

Nature Conservancy of Canada

$500,000*

Jones Creek-Wahleach Lake Watershed Land Securement

F. Lessa

Carey Island Land Securement: The Coastal Region Board approved the $500,000 to purchase Carey Island. This land securement project will secure Carey Island, 248 hectares in the Fraser River, about 9 km south of the City of Chilliwack.

Land securement: 248 hectares of Fraser River riparian habitat conserved

The purchase of Carey Island, 248 hectares of riparian and broadleaf habitats in the Lower Fraser River, will benefit salmon and other species in perpetuity.

White sturgeon, bull trout, steelhead salmon, Chinook salmon, pink salmon, sockeye salmon, painted turtle, Salish sucker, northern red-legged frog, coastal tailed frog, western toad, and great blue heron are among species that will benefit from the securement of this important conservation land.

* This project was approved after March 31, 2024, using the land securement reserve fund.

Learn more