













Front cover: Kus kus sum (Ian Routley), Ecocultrestoration (Guardians of Mid-Island Estuaries), Campbell River (A-Tlegay Fisheries Society), Campbell River estuary (Greenways Land Trust), WSOW boxes (Madrone Environmental Services), Chinook fry Puntledge hatchery (Ian Routley), NSOBP Small Eyes (A. Glass), Reeve Slough (NTBC).

#### FWCP fish and wildlife projects 2024–2025

Our Coastal, Columbia, and Peace region boards approved ~\$10.4 million for 95 fish and wildlife projects. Each project aligns with our regional action plans, which reflect our strategic objectives, mission, and vision.

Read our story.

#### Coastal Region projects 2024–2025

In our Coastal Region, 28 projects were approved by our board for \$1.8 million in 2024–2025.

Funding was approved for projects in 9 of the 14 watersheds that make up our Coastal Region. Five projects were delivered in more than one watershed. See Table 1 for a breakdown of funding by watershed.

This year, nearly 70% of the approved funding was allocated toward habitat-based projects, and just over 16% on species-based projects. 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 action type.

Table 1: Projects approved by watershed\*

tube 1.110jects approved by Watershed			
Watershed	<b>FWCP Funding</b>	Number of projects	\$59,822
Alouette	\$48,428	1	\$193,216
Bridge Seton	\$326,318	3	
Campbell	\$180,997	4	\$284,836
Cheakamus	\$96,646	2	
Clowhom	\$19,000	1	
Coquitlam-Buntz	en \$421,611	3	\$1,232,656
Falls River	\$8,156	2	\$1,232,636
Puntledge	\$228,055	4	
Shuswap	\$60,548	2	
Multiple	\$370,775	5	Habitat-based Species-based
TOTAL	\$1,770,533	28	Research & Information Monitoring & acquisition Evaluation

<sup>\*</sup>This table does not include money set aside for the land securement or Community Engagement Grants.

#### Figure 1: Breakdown of approved funding by action type

#### **Project outcomes**

Project outcomes for projects approved for 2024–2025 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 <a href="fwcp.ca/results.html">fwcp.ca/results.html</a>.

#### Learn more about our projects

Subscribe to FWCP news.

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Project outcomes and annual reports are also available for our Columbia

and Peace regions at

### Using technology to improve fish passage

COA-F25-F-4103 MakeWay Charitable Society \$74,611

Coquitlam River Watershed Habitat-based Action



Coquitlam River Floodgates and Fish Passage, Year 4: The fourth year of this project will continue to assess fish passage across three floodgate types connecting the Coquitlam River to valuable off-channel salmon habitat.

#### Accessing critical salmon habitat

Current floodgate operations limit access to critical rearing, and overwintering habitat.

Data collected this year will inform future changes to floodgate operation and replacement in this watershed. Those changes will support growth and survival of Chinook, coho, and steelhead in a watershed impacted by reservoirs created for hydro operations.

Learn more

### Maintaining fish habitat in the Cheakamus River Watershed

COA-F25-F-4099

Cheakamus Foundation for **Environmental Learning** 

\$91.745

Cheakamus River Watershed

Habitat-based Action



Cheakamus Centre River Intake Maintenance: This project will focus on removing sediment and improving flows for coho, Chinook, pink, chum, and steelhead salmon as well as other species that use this off-channel habitat at the Dave Marshall Salmon Reserve in the Cheakamus River Watershed.

### Sediment removal & plantings help restore salmon habitat

More than 1,300 cubic metres of sediment were removed from multiple sites in the Cheakamus River Watershed to improve water flow and restore habitat for coho, Chinook, pink, chum, steelhead and other species.

Restoration work occurred at Eagle Point intake, Duck Pond, Far Point intake, and the Upper Paradise Channel.

Two hundred native riparian shrubs and 100 pounds of native grass seed will help stabilize the channel banks. Work to improve ramps and crossings was started.

## Improving flows for fish in the Coquitlam River Watershed

COA-F25-F-4102 Kwikwetlem First Nation \$328,0000

Coquitlam River Watershed

Habitat-based Action



Reeve Slough Salmon Habitat Reconnection Project 2024: This multi-year project will reconnect the 31,800-square-metre Reeve Slough relic channel to the Coquitlam River.

#### Progress made toward improving salmon habitat

A conceptual design to reconnect 31,800 square metres of habitat to the Coquitlam River was approved by Kwikwetlem First Nation.

The site design is aimed at improving water flows by reconnecting the Reeve Slough and will feature pools and channels of varying depths, fishfriendly culverts, habitat microsites, such as shady areas, logs, and large rocks.

When enhancements are complete, this project has the potential to restore key habitat for many aquatic and terrestrial species important to the natural cycle and the Kwikwetlem First Nation.

Learn more

## Restoring fish and wildlife habitat in the **Cheakamus River Watershed**

COA-F25-F-4107

The Nature Trust of British Columbia \$4,901

Cheakamus River Watershed Habitat-based Action



Restoration Following the Re-Watering of Little Bear Slough: Little Bear Slough in the Squamish River Estuary has been disconnected from the Squamish River Estuary for 50 years due to a railway line and tidal flap gates.

#### Restoring habitat in the Cheakamus River Watershed

The monitoring done as part of this project succeeded in providing baseline information on the ecological condition of the Squamish Estuary Conservation area (i.e., before water flows are restored by connecting the Little Bear Slough and the Squamish River).

The data informed the recommendations for continued ecological monitoring targeting identified knowledge gaps, and the removal of invasive species and re-planting prior to re-watering remnant channels.

Data collection in 2024 focused on the ecological state of the remnant channels within NTBC's Squamish Estuary Conservation Area with an emphasis on improving awareness of the characteristics of juvenile Pacific salmon habitat including water quality, fish habitat suitability, riparian vegetation, as well as the abundance and characteristics of wildlife trees and key habitat components for birds and wildlife.

### Restoring riparian habitat in the Puntledge River Watershed

COA-F25-F-4093

Comox Valley Project Watershed Society

\$203,900

Puntledge River Watershed

**Habitat-based Action** 



Kus-kus-sum: Unpaving Paradise, Year 4: This multi-year project on the Kus-kus-sum conservation lands will focus on restoration actions, including earth works, planting native species, habitat complexing, and exploring options to remove the steel-piling wall separating the former sawmill site and the Puntledge River.

#### Restoration of sawmill site: 80% complete

This multi-year project to acquire and then restore a former sawmill site on the Puntledge River is now about 80% complete.

The site is part of a salmon migratory corridor for the Puntledge River and Tsolum River watersheds and holds cultural importance to the K'ómoks First Nation.

In this project year, 5,100 m<sup>2</sup> of tidal marsh and riparian habitat were restored further, and with volunteer help, 3,500 native plants were added to the site. The remaining contaminated soil was removed from the site.

## Monitoring for drought conditions in the Shuswap **River Watershed**

COA-F25-F-4111

Okanagan Nation Alliance

\$44,548

Shuswap River Watershed

**Species-based Action** 



Bessette Creek Streamflow Monitoring Year 2: This project will maintain and monitor hydrometric stations on Bessette Creek, a tributary to the Shuswap River near Lumby, which is critical for salmon conservation.

#### **Drought monitoring continue in Shuswap River** Watershed

Stations strategically placed along Bessette Creek monitored water levels in key spawning areas for real-time drought alerts. This is important for salmon conservation, especially in low-flow and drought conditions.

This year, monitoring stations were upgraded and maintained to ensure timely information about water flows can be relayed to the provincial Regional Drought Response Team.

Learn more

## Improving salmon stewardship in the Shuswap **River Watershed**

COA-F25-F-4074

Kingfisher Interpretive Centre Society

\$16,000

Shuswap River Watershed

**Species-based Action** 



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

#### Improving salmon stewardship

More than 4,000 people received salmon-themed education through the outreach and place-based experiential education offered by the centre.

#### **Learn more**

### Enhancing salmon habitat through stewardship

COA-F25-F-4086 Alouette River Management Society \$17,287

Alouette River Watershed Habitat-based Action



Alouette Watershed Community Connections Project: This project will focus on enhancing salmon habitat in the Alouette River Watershed through community stewardship, training volunteers to monitor water quality and habitat, in partnership with the Pacific Streamkeepers Federation.

#### 1,288 m<sup>2</sup> of salmon habitat restored

Invasive plants and sediment that once restricted the flow of water through vital off-channel spawning habitat have been removed, native plants have been added to the site, and spawning and rearing habitats has been excavated and restored in a watershed impacted by reservoirs behind BC Hydro dams.

A total of 1,288 m<sup>2</sup> was restored, including 527 m<sup>2</sup> of salmon habitat stream area, and 761 m<sup>2</sup> of riparian area, which is where 687 native plants have been planted. More than 200 volunteers helped with invasive plant removal and native planting, contributing 527 volunteer hours, with 11 volunteers trained in proper techniques.

## Improving fish passage in the Alouette River Watershed

COA-F25-F-4142-DCA Alouette River Management Society \$31,141

Alouette River Watershed **Species-based Action** 



Supporting the study of fish passage improvement in Coguitlam and Alouette watersheds: The FWCP Coastal Region board has made a 10-year commitment to support the assessment of improved fish passage feasibility at the Coquitlam and Alouette dams based on the Fish Passage Decision Framework.

#### 2024 spawning salmon among highest returns

Forty-seven sockeye salmon returned to the Alouette River Watershed in 2024, up from 31 the previous year, making 2024 the fourth-best year for returns since monitoring started 18 years ago.

The largest salmon measured 66 cm (26 inches), and the smallest was 52.7 cm (20.75 inches).

Analysis confirms that forty-five of the sockeye adults were released as fry from the Alouette Reservoir. Two were from Stellko and Coquitlam stock.

## Assessing urgent salmon habitat restoration in the **Campbell River Watershed**

COA-F25-F-4152-DCA A-Tlegay Fisheries Society \$59,822 Campbell River Watershed

Habitat-based Action



F25 Campbell River Gravel Strategy (Post-Storm Assessment): The FWCP Coastal Region board approved funds to conduct spawning habitat assessments in the event winter flows exceed 225 cubic metres per second in the lower Campbell River. This aligns with the Campbell River Salmon Spawning Habitat Restoration Strategy.

#### Spawning gravel assessed in Campbell River

Spawning gravel pads help replenish gravel that moves downstream when flows in the Campbell River exceed 225 cubic metres/second. This flow rate has been exceeded several times since 2019 and the high flow rates can reduce the quality of spawning habitat in the river.

Spawning habitat assessments were completed this year in the lower Campbell River and three spawning gravel placement locations were assessed. Erosion was confirmed at some sites.

Larger grain size gravel is required to keep the gravel spawning pad stable, and smaller grain sizes are required to limit interstitial predation.

**Learn more** 

# Using chum carcasses to add nutrients to the **Puntledge River Watershed**

COA-F25-F-4117-DCA

Courtenay and District Fish & Game Protective Association

\$2.100

Puntledge River Watershed

Species-based Action



Upper Puntledge River Watershed Chum Carcass Distribution: This multi-year project will support the distribution of carcasses from a hatchery into the upper Puntledge River Watershed.

#### Volunteers add marine nutrients to the watershed

Volunteers distributed 5,053 chum salmon carcasses along the Upper Puntledge and Cruickshank rivers which will add nutrients to benefit the food web.

#### **Learn more**

## **Supporting Chinook in the Puntledge River** Watershed

COA-F25-F-PUN-DFO-1

Fisheries & Oceans Canada

\$17,000

Puntledge River Watershed

Species-based Action



F25 Annual Puntledge Hatchery Contribution: This multi-year project provides annual funding to the Puntledge River Hatchery to support summer Chinook production.

### **Project in progress**

# Improving fish passage in the Coquitlam-Buntzen Watershed

COA-F25-F-TBD

Kwikwetlem First Nation

\$18,859

Coquitlam-Buntzen Watershed

Species-based Action



Supporting the study of fish passage improvement in Coquitlam and Alouette watersheds: The FWCP Coastal Region board has made a 10-year commitment to support the assessment of improved fish passage feasibility at the Coquitlam and Alouette dams based on the Fish Passage Decision Framework.

### **Project in progress**

### Restoring aquatic and terrestrial habitats

COA-F25-W-4187 Wai Wah Environmental G.P. Ltd.

Falls River Watershed

\$4,896

Habitat-based Action



Prioritizing conservation projects in Falls River Watershed: This Seed Grant project is a feasibility study to identify and develop plans for up to three conservation projects within the Falls River watershed, which has been impacted by reservoirs related to BC Hydro dams.

### **Project in progress**

# Building a resilient bat population in the Clowhom **River Watershed**

COA-F25-W-4091 Sunshine Coast Wildlife Project \$19,000 Clowhom River Watershed

Habitat-based Action



Conserving Bat Roosting Habitat in Clowhom Watershed, Year 2: Already at risk, B.C.'s bat species face a new threat from the devastating White Nose Syndrome.

### **Project in progress**

# Recovering endangered whitebark pine in the **Bridge-Seton Watershed**

COA-F25-W-4094

Moody Tree

\$61,600

**Bridge-Seton Watershed** 

Species-based Action



Whitebark Pine Recovery: Building Community Capacity: This project will build local expertise and expand the network of whitebark pine recovery specialists who have the skills required to respond to the increasing recovery needs of this endangered keystone species.

#### 3,200 endangered white bark pine seedlings planted

Endangered whitebark pine is priority species for our Coastal Region board which is supporting ongoing recovery work of this keystone species.

Four site-specific restoration plans were developed, 160 cone cages were built to collect pinecones. Three-thousand and two-hundred seedlings were planted, and 4.7 hectares of whitebark pine habitat were restored.

In this project year, six people were trained in cone collection and planting, and 17 more were trained in whitebark pine ecology. All are now part of a local network of knowledgeable whitebark pine recovery specialists in the Bridge-Seton River watersheds.

### **Recovering endangered Vancouver Island marmots**

COA-F25-W-4087 Marmot Recovery Foundation \$16,790 Multiple Watersheds Habitat-based Action



Translocating Vancouver Island Marmots to Strathcona Park 2024 This project will support the transfer of up to eight Vancouver Island marmots from Mount Washington into Strathcona Park. This will help colonies grow and contribute to the species' occupation of the park.

#### Record year for endangered marmots

Monitoring confirms a high of 204 marmots in the Strathcona Provincial Park population. Sixty-five are pups, which suggests it was also a record year for reproductive success.

Nine wild-living marmots were captured and translocated to three colonies.

The growth of this meta-population, and of the wild-living Vancouver Island marmot, is extremely encouraging. However, the project team has more work to do to reach the wild population goals Recovery Plan (2017).

#### Learn more

# Strengthening First Nations engagement in long-term monitoring of bats

COA-F25-W-4088 Wildlife Conservation Society Canada \$92,194

Bridge-Seton Watershed Habitat-based Action



Supporting Indigenous Leadership in Bat Monitoring: The Lillooet area in the Bridge-Seton Watershed is home to up to 14 bat species—among the most diversity in the province.

#### 18 people trained in bat acoustics in the St'át'imc territory

Eighteen people from the St'át'imc territory - N'Quatqua, P'egp'ig'lha Council, Sekw'el'was' (SplitRock), and St'át'imc Government Services, took part in a five-day bat acoustics training session.

This training is part of a four-year Indigenous Capacity Building Bat Conservation project in the Bridge-Seton River watershed.

Field and classroom training focused on deploying and using bat detectors and analyzing recordings.

### **Protecting northern spotted owls**

COA-F25-W-4082

British Columbia Conservation Foundation

\$172.525

**Bridge-Seton Watershed** 

Habitat-based Action



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

### Six endangered owl breeding pairs confirmed

During this project year, another breeding pair was confirmed—bringing the total to six, up from five pairs the previous year. The program's target is 10 breeding pairs.

Three-quarters of the chicks that hatched survived to the breeding season, and genetic analysis of all owls in the breeding program was completed. Results show no close relatedness between paired individuals.

Learn more

### Recovering western painted turtles

COA-F25-W-4084 Athene Ecological \$140,000 Multiple watersheds

**Species-based Action** 



Western Painted Turtle Recovery in Coastal Watersheds: The goal of this multiyear 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: 13 captured**

Work continued this year to recover the Red-Listed coastal western painted turtle at multiple Lower Mainland locations in the Alouette, Coquitlam, and Stave River watersheds.

Thirteen turtles were captured and raised in a controlled environment – away from predators before being released back into the watersheds. This is called head-starting and helps increase survival of the at-risk turtles. Twenty-two basking surveys were completed, and 64 turtles were observed using basking logs and other features.

Thirty-eight nests were located, and many were protected from predators with cages. Sixty-four "head start" turtles were released at three sites, and four beaches used for nesting were maintained, and 502 hours were spent monitoring nests.

The team confirmed the use of anti-parasitic and sterilizing tubs as a successful care treatment to reduce/eliminate the development of soft shell.

Learn more

# **Evaluating White Nose Syndrome mitigation** options

COA-F25-W-4098

Wildlife Conservation Society Canada

\$70,273

Multiple

Habitat-based Action



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.

### WNC Update: Probiotic reduces Pd fungus on bat wings

Empirical evidence confirms that a probiotic "cocktail" is reducing the prevalence of the fungus known as Pd on bat wings – a fungus that is decimating bat populations.

This finding brings B.C. one step closer to having an effective disease management tool for preventing and managing the spread white-nose syndrome (WNS): a disease, caused by the invasive fungus, Pd and results suggest that wider geographic protection may stem from roost treatments in a region. The team is continuing to monitor bat activity at 11 study sites using acoustics, swab-sampling, and bat mark-recapture using PIT tag readers at roosts.

## Supporting western painted turtle recovery in the **Puntledge River Watershed**

COA-F25-W-4096 **Current Environmental Ltd** \$4,960

Puntledge River Watershed Species-based Action



Puntledge Western Painted Turtle Recovery: This project will use eDNA sampling and visual surveys to confirm the presence and distribution of western painted turtles at 10 sites in the Puntledge River Watershed

#### Work continues to confirm presence of western painted turtles

Western painted turtles were not detected in the Puntledge River Watershed by eDNA techniques. Cameras recorded more than 7,000 images, and five were potentially images of turtles, but the species could not be confirmed. Habitat assessment confirmed suitable habitat substrates are at Maple Lake; however, this site could pose human threats to the turtles. More work is recommended, including citizen science, to increase observations of this freshwater turtle in the watershed.

Determining the presence and distribution of WPT in the region will inform conservation efforts, guide habitat management decisions, and help prioritize areas for protection/restoration.

## **Engaging First Nations and other partners to** support western screech-owls

COA-F25-W-4080

Madrone Environmental Services Ltd.

\$15,000

Campbell River Watershed

Habitat-based Action



Western Screech-owl Conservation and Stewardship: This project is a cooperative effort involving biologists, First Nation Guardians, and volunteers to enhance habitat, monitor population trends, and raise awareness of western screech-owl conservation and enhancement options in the community.

#### Sixty-four nest boxes installed for at-risk owls

Increasing suitable habitat is key for species that have lost habitat to human activity. This year, the project team built 116 western screech-owl (WSOW) nest boxes and installed 64. More than 140 nest boxes installed about a decade ago were inspected for occupancy, and one was occupied by a nesting northern saw-whet owl guarding four eggs. Thirty-three were cleaned, repaired, or replaced.

WSOW pairs were detected at six of 19 monitoring stations, along with northern pygmy, barred, and northern saw-whet owls.

Learn more

# Designing a long-term solution for spawning habitat in the Campbell River Watershed

COA-F25-F-4100

British Columbia Conservation Foundation

\$85,716

Campbell River Watershed

Habitat-based Action



Upper Campbell River Bulk Gravel-Design and Permitting: The goal of this multiyear project is to complete detailed design, engagement, impact assessment, and permitting for a cable-supported chute system to deliver critical salmon spawning substrate for all salmon species to the Elk Falls Canyon.

### **Project in progress**

### **Conserving black swifts with First Nations partners**

COA-F25-W-4083

Birds Canada

\$49,780

Multiple

Species-based Action



Engagement of First Nations in Black Swift Conservation: The population of black swifts is declining. This project will engage First Nations community members who will share their knowledge.

#### **Conserving Endangered black swifts**

In collaboration with eight First Nations in the Bridge-Seton, Campbell River, Cheakamus, and Stave river watersheds, the project team conducted multiple surveys at 20 waterfall locations.

Forty-one adult black swifts, and 11 active nests were detected, and temperature and humidity data were collected near the nest sites.

A black swift colony guardian program was launched, and signage was installed to reduce disturbance of this species of cultural significance to the Nations.

#### **Learn more**

## Filling data gaps about bats in Falls River Watershed

COA-F25-W-4106

Red-tail Environmental Inc.

\$3,260

**Falls River** 

Habitat-based Action



Bats in Falls River Watershed: Inventory and Habitat Analysis: This Seed Grant project will address data gaps about bat presence in the Falls River Watershed, focusing on habitat assessment and identifying hibernacula.

#### **Project in progress**



Developing a habitat assessment map

COA-F25-W-4140-DCA Province of B.C. \$93,931 Multiple Watersheds



F25 FWCP Watershed Assessment Tool Development: The FWCP Coastal Region board has approved funds to be directed toward the implementation of habitat assessment mapping across the Coastal Region's 14 watersheds to reflect priority values, objectives, and assessment results.

#### Data added to the habitat assessment tool

The project team, including a geospatial analyst, added new data to the FWCP version of the multi-value Strategic Baseline Objective Tool (SBOT) that assesses and reports on a subset of watersheds and values.

**Learn more** 

## Restoring ecological function in the Campbell River Watershed

COA-F25-W-4089

Discovery Coast Greenways Land Trust

\$30,458

Campbell

Habitat-based Action



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

### 4,500 kg of invasives removed to help restore Campbell **River Estuary**

Removing and managing invasive plant species is key to restoring ecological function in the estuary. The team removed thousands of kilograms of yellow flag iris, Scotch broom, Himalayan blackberry and others invasives from multiple sites in the estuary, including marshes and Baikie Island.

Previous work removed many of the mature plants and depleted the seed stock which will reduce the invasives in future years.