

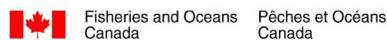


Annual Report

Peace Region

2021–2022

fwcp.ca



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.

Message from our board co-chairs

Hard to believe it has been a year since our last annual report—and another year where the global pandemic continued to influence all aspects of our lives, including how we work together. Here in our Peace Region, the work to deliver the nine fish and 17 wildlife projects our independent board approved for \$1.3 million in 2021-2022 has mostly continued with few interruptions. Three of the six projects delayed from past years due to the pandemic were completed this year. That kind of track record is remarkable, especially when you consider the pandemic restrictions together with the intense heat, wildfires and smoke that defined the summer field season of 2021.

The projects funded in 2021-2022 helped to enhance habitat for fish and wildlife, fill important data gaps to define what conservation actions come next, support at risk caribou, bats, bull trout and other species including Arctic grayling, moose, migratory birds, and amphibians, and more. Please take a moment to look at our [project list](#) or visit our interactive map at [fwcp.ca](#) and learn more about the 2021–2022 fish and wildlife projects we funded.

The Fish & Wildlife Compensation Program (FWCP) is one of many funders of a ground-breaking, conservation effort that has seen the Klinse-Za Herd size triple in nearly a decade thanks to the Saulteau and West Moberly First Nations, and many others. This is great news and an excellent example of what can happen when Indigenous knowledge and Western science come together. Watch this video to [learn more](#).

We want to extend a sincere thank you to the First Nations, stewardship groups, agencies, consultants, and academic researchers who, despite the year’s challenges, continued to deliver projects to help fish and wildlife. Thank you on behalf of the FWCP.

Your interest in developing grant applications to address the priority actions in our Peace Region Action Plans, and your skills and expertise to deliver so many important projects, is critical to our success. By working together, we are helping to conserve and enhance fish and wildlife in watersheds impacted by existing BC Hydro dams.

In addition to our projects, this was a busy year for the entire FWCP team as we:

- Continued working to address the recommendations from the independent evaluation and financial audit, including updates to the Governance Manual that guides our work. See our update on page 5.

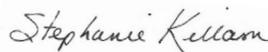
- Renewed our three-year communications strategy with a focus on refreshing our products, engaging youth, and strengthening our communications with Indigenous Nations across our three regions.

We want to take a moment to recognize the work of our fellow board members. We particularly want to thank retiring board members including public representative—and co-chair—Wayne Sawchuk, Tsay Keh Dene First Nation representative Sina Abadzadesahraei, and Prophet River First Nation representative Debbie Hanson. We welcomed Chris Addison as a new public representative, and Evan MacKinnon as the new representative from the Tsay Keh Dene First Nation. I was honoured to join Monique as co-chair.

As we look ahead, we’re excited to see the important work continue. This annual report is just one way we are transparent and accountable to you. Please learn more at [fwcp.ca](#) and contact us anytime about our work in any of our regions.

If you have any questions about our projects, grants, or this annual report, please contact our [regional manager](#). Our team is available to answer your questions.

Sincerely,



Stephanie Killam
FWCP Peace Region,
Board Co-Chair



Monique Stevenson
FWCP Peace Region
Board Co-Chair



Annual reports are also available for our Columbia and Coastal regions at [fwcp.ca](#)

Cover page: Klinse-Za Herd size has tripled since 2013 as a result of the caribou maternity pen project, and other efforts, led by the Nikanese Wah tzee Stewardship Society. Photo: Wildlife Infometrics Inc.

1.0 Organizational overview

1.1 INTRODUCTION

With annual funding from BC Hydro, the Fish & Wildlife Compensation Program (FWCP) conserves and enhances fish and wildlife in watersheds impacted by 31 existing BC Hydro dams. The FWCP directs those funds toward priority actions across its three regions—Coastal, Columbia, and Peace—to fulfill its mission and work toward its vision of thriving fish and wildlife populations in watersheds that are functioning and sustainable.

BC Hydro has water licence obligations in the Columbia and Peace regions and has made voluntary commitments to address the impacts of dams in the Coastal Region. BC Hydro fulfills the applicable obligations through the work of the FWCP.

The FWCP is governed through a framework that recognizes the regulatory accountabilities of agency partners (i.e., BC Hydro, the Province of B.C., and the DFO) and ensures active participation and input from First Nations and public stakeholders. Independent board members in each region review, evaluate, and approve funding for all projects. Our boards include representatives from each of our FWCP partners: BC Hydro, the Province of B.C., First Nations, and public stakeholders. The Coastal Region board also has a representative from the DFO. When it comes to decision-making, input from each board member is given equal consideration through collaborative discussion. Learn more at fwcp.ca/our-story.

Combined, our three regional boards have the following representatives:

- BC Hydro: 5
- Federal government: 1
- First Nations: 15
- Provincial government: 5
- Public stakeholders: 9

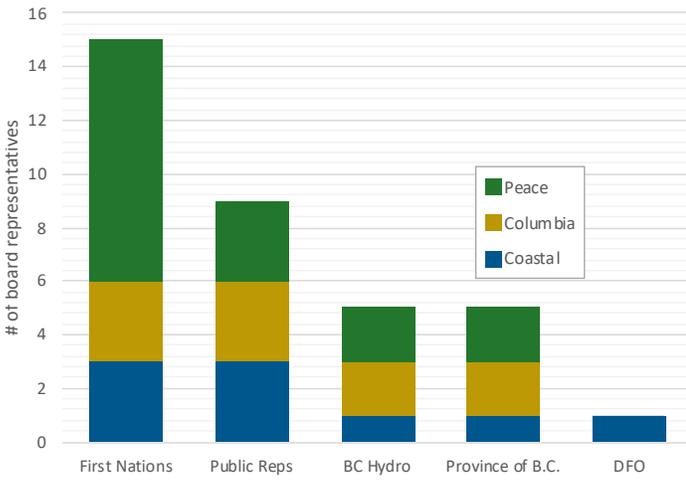


Figure 1.1: Board representation across all three FWCP regions

Board representation by region is shown in Figure 1.1. In F22, the boards approved approximately \$9.4 million for 100 fish and wildlife projects.

Since 1988, BC Hydro has provided over \$200 million to the FWCP to compensate for dam impacts, and the FWCP has funded more than 2,200 projects across its three regions.

The FWCP’s Peace Region was established in 1988 to support the conservation and enhancement of fish, wildlife, and habitats in watersheds impacted by construction of the W.A.C. Bennett and Peace Canyon dams, and the creation of the Williston and Dinosaur reservoirs (Figure 1.2). The FWCP in the Peace Region is not addressing impacts from the construction of the Site C dam.

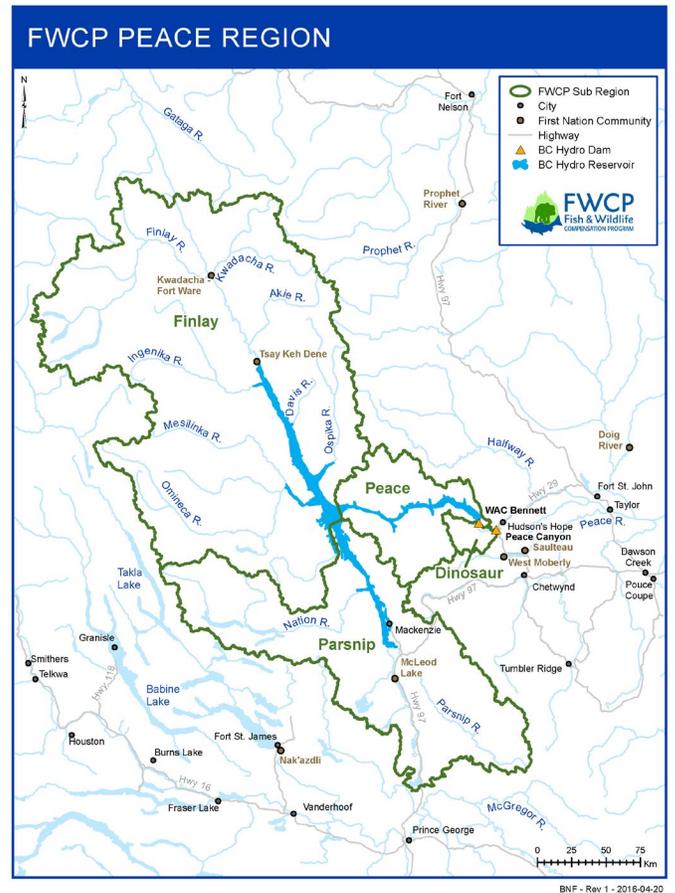


Figure 1.2: Map of the FWCP Peace Region

2.0 Our strategic approach

2.1 VISION AND MISSION

Our vision is for thriving fish and wildlife populations in watersheds that are functioning and sustainable, and our mission is to compensate for fish, wildlife, and their supporting habitats in watersheds impacted by BC Hydro owned and operated generation facilities.

We take a forward-looking, ecosystem-based approach that defines the desired outcomes and takes actions to restore, enhance, and conserve priority species and their habitats. The FWCP's strategic objectives are:

Conservation

Maintain or improve the status of species or ecosystems of concern. Maintain or improve the integrity and productivity of ecosystems and habitats.

Sustainable use

Maintain or improve opportunities for sustainable use, including harvesting and other uses. Harvesting includes First Nations, recreational, sport, and commercial harvests. Other uses may include cultural, medicinal, or non-consumptive uses.

Community engagement

Build and maintain relationships with stakeholders and Indigenous communities. This objective stems from BC Hydro's social responsibility policy and the Province of B.C.'s shared stewardship objective

See our [Governance Manual](#) for more details on our strategic approach.



We funded an [innovative project](#) to find out if transplanting lichen could expedite the restoration of important habitat for at-risk caribou. The preliminary results are promising. [PEA-F22-W-3428](#). Photo: Chu Cho Environmental

2.2 ACTION PLANS

Our action plans guide FWCP investments in fish and wildlife projects. They are referenced annually by our regional boards to track progress toward implementation, set annual priorities, and guide decision-making in setting out and approving the annual operating plan for each region. Actions in our action plans are eligible for FWCP funding and align with our vision, mission, and geographic scope.

Priority actions for fish and wildlife in our Peace Region are reflected in four current [action plans](#) updated in 2020:

- Cross-Ecosystem Action Plan
- Rivers, Lakes, & Reservoirs Action Plan
- Riparian & Wetlands Action Plan
- Uplands Action Plan

These updated action plans were developed with local input and provide strategic guidance on grant applications and funding decisions.

2.3 UPDATE: EVALUATION AND FINANCIAL AUDIT

Responding to the nine recommendations from our 2019 independent evaluation and financial audit remains a priority. Steady progress is being made on all recommendations as we balance core business priorities and human resources.

Across all our regions, the evaluation and financial audit recommended exploring a potential increase in the use of directed projects. Each region is now delivering between five to eight directed projects, in addition to the grant-based projects.

In September 2021, a tri-region meeting of the boards endorsed an action to clarify the scope and intended outcomes of Strategic Objective #2: maintaining or improving opportunities for sustainable use.

In our Columbia Region, work is underway to strengthen engagement of First Nations in the region's leadership, decision making, and project planning and delivery.

Learn more about our evaluation and financial audit <https://fwcp.ca/evaluation-audit-2018-2019/>

3.0 Board, committee members, and staff

3.1 FWCP PEACE REGION BOARD

The board guides our work and is responsible for approving our Peace Region projects and budget. In addition to funding projects through our annual grants, the board may choose to direct projects and approve funding to address regional priorities.

Peace Region board:

Brian Paterson	Public
Carolyn McCook	Kwadacha First Nation
Corey Erwin	Province of B.C.
Evan McKinnon	Tsay Keh Dene First Nation
Gord Haines	Doig River First Nation
Heather Middleton	BC Hydro
Jayde Chingee	McLeod Lake Indian Band
Monique Stevenson, Co-chair	BC Hydro
Naomi Owens-Beek	Saulteau First Nation
Ray Pillipow	Province of B.C.
Stephanie Killam, Co-chair	Public
Tamara Dokkie	West Moberly First Nation
T. Rosemarie Sam	Nak'azdli Whut'en First Nation
Wayne Sawchuk/Chris Addison	Public
Vacant	Treaty 8 Tribal Association
Vacant	Prophet River First Nation

3.2 FIRST NATIONS WORKING GROUP

The board is supported by a First Nations Working Group that provides an advisory role, including early engagement with proponents prior to submitting grant applications.

The First Nations Working Group:

Charmayne Brinkworth & Madeline Oker	Doig River First Nation
Daniel Sklar/Sean Rapai	Tsay Keh Dene First Nation
Fernie Garbitt, Co-Chair	Saulteau First Nation
George Desjarlais, Co-Chair & Walter Allison	West Moberly First Nation
Robin Tsakoza & Maurice Wolf	Prophet River First Nation
Patricia Livingston	Kwadacha First Nation
Margaret McDonald	McLeod Lake Indian Band
T. Rosemarie Sam/Fred Sam	Nak'azdli Whut'en First Nation
Vacant	Treaty 8 Tribal Association

3.3 TECHNICAL COMMITTEES

The board is supported by fish and wildlife technical committees that act in an advisory role by providing technical review, evaluation, and ranking of fish and wildlife grant applications; supporting the development of strategic plans; assisting in the development and oversight of directed projects; and providing advice on the effective implementation of action plans.

Fish technical committee

Carmen Richter/Julian Napoleon	Saulteau First Nation
Erin Stoddard	BC Hydro
Kristen Peck, Co-Chair	Province of B.C.
Randy Zemlak, Co-Chair	BC Hydro
Mark Shrimpton	Public representative
Nikolaus Gantner	Province of B.C.

Wildlife technical committee

Brock Simons	BC Hydro
Carmen Richter	Saulteau First Nation
Inge-Jean Hansen	Province of B.C.
Kim Hawkins	BC Hydro
Michael Bridger	Province of B.C.
Michael Klaczek Chair	Province of B.C.

3.4 POLICY COMMITTEE

The policy committee sets the FWCP's overall policy direction including the governance structure and strategic framework. It also oversees periodic evaluations, approves significant changes to the FWCP, and addresses dispute resolution, when necessary, among other responsibilities beyond the FWCP. For more details, refer to our [governance manual](#).

Policy committee members:

Brad Fanos	Regional Director Pacific Region, Fisheries and Oceans Canada
James Mack	Assistant Deputy Minister, Ministry of Environment & Climate Change Strategy
Karen Popoff	Director, Environment, BC Hydro

3.5 STAFF

In our Peace Region, program management and operations were implemented by the region manager Chelsea Coady during this reporting period, supported by acting region manager, Jennifer Walker-Larsen. They were supported by Monique Stevenson, FWCP manager, and Lorraine Ens or Melissa Fiel de Sousa, environment project manager.

4.0 Project funding and grants

4.1 PROVINCIAL PROJECT FUNDING

In F22, FWCP boards approved 100 projects for a total FWCP contribution of approximately \$9.4 million. The total value of these projects—including leveraged funding from other organizations and in-kind resources—was \$14.4 million.

Final reports for all FWCP-funded projects are uploaded to [Ecocat](#) or [SIWE](#) provincial databases, and searchable spreadsheets of reports for each FWCP region are available at [fwcp.ca/results/](#).

4.2 PEACE REGION PROJECT FUNDING

In our Peace Region, the FWCP supports the delivery of fish and wildlife projects through grant applications and directed projects. Twenty-six projects were approved for F22, for approximately \$1.3 million in funding from our Peace Region board.

Grant applications

The FWCP's annual grant intake opens each summer and closes in late fall. In the Peace Region, all grant applicants must submit a notice of intent (NOI) prior to submitting a full application. The NOI is an important part of our commitment to strengthen engagement with First Nations. It helps inform First Nations about proposed projects and is the basis for identifying opportunities for First Nations perspectives on, and engagement in, the projects. The NOI also helps our Peace Region manager provide additional guidance before completing grant applications.

Grant applicants are required to develop a project idea that aligns with one or more priority action(s) in any action plan(s) and will achieve the intended outcome(s).

All grant applications go through a three-stage review process. For more details, read our FAQs at [fwcp.ca/apply-for-funding/](#).

For the F22 grant intake, a total of 30 grant applications were received for review, requesting funding of approximately \$1.67 million for a total project value of approximately \$3.12 million.

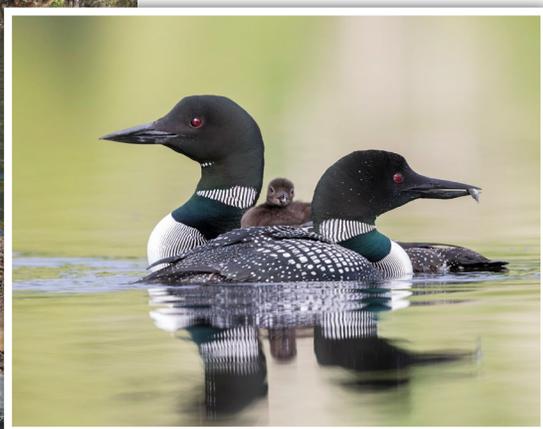
Our Peace Region board approved over \$1.04 million in funding for 20 projects through our annual intake of grant applications. Fourteen were wildlife projects (\$602,174) and six were fish projects (\$442,891). First Nations were involved in 18 of the 20 approved grant application projects.

Five thousand dollars was also approved for the Community Engagement Grant - see next page for details. In this report it is recorded as one grant-based project.

Directed projects

Our Peace Region board may also choose to direct projects and approve funding to address regional priorities. Actions identified as Directed are not eligible for a grant.

More than \$215,000 was approved for five directed projects, including: a kokanee spawner survey (\$75,000), Mugaha Marsh bird-banding station at the Mackenzie Nature Observatory (\$20,000), the UNBC presentation series (\$14,000), a fish passage project (more than \$49,000), and a pelagic gillnetting survey in Williston Reservoir (\$57,000).



Monitoring of floating platforms previously installed in the Parsnip and Dinosaur sub-regions shows increased nesting use by common loons. [PEA-F22-W-3435](#) Photos: Blackbird Environmental Ltd., and iStock/B. Lazenby

Approved projects by proponent type

The FWCP Peace Region board approved 20 grant application projects and five directed projects, in addition to the community engagement grant funding which is recorded as a single project. Nearly two-thirds of the approved projects were led by First Nations and consultants, followed by non-government agencies such as stewardship groups or non-profit environmental organizations.

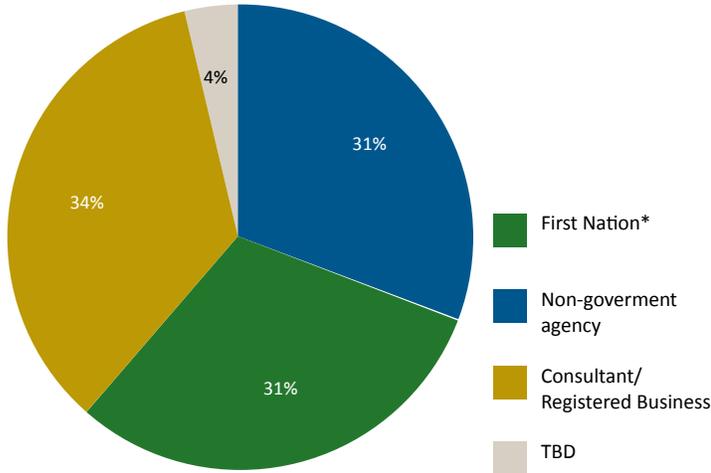


Figure 4.1 Approved projects by proponent type.
*Includes Indigenous-owned businesses and Indigenous organizations

Approved projects by action type

- We fund five types of projects:
- 1) research & information acquisition
 - 2) habitat-based
 - 3) species-based
 - 4) monitoring and evaluation
 - 5) land securement

See Figure 4.2 for approved projects by action type in F22. There were no land securement projects during this year.

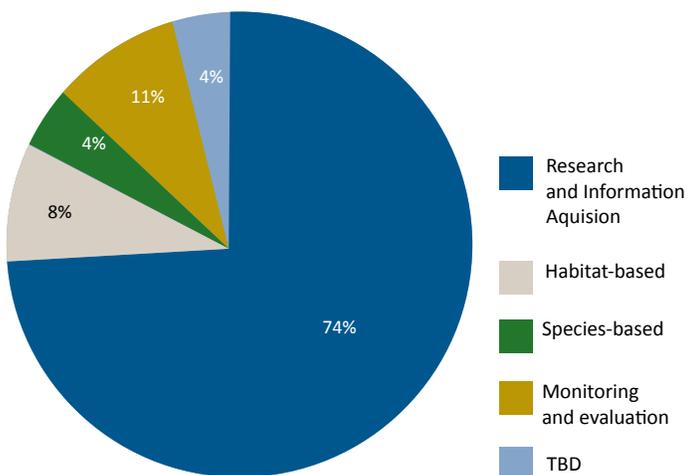


Figure 4.2 Approved projects by action type.

Approved projects by sub-region

Figure 4.3 shows the approved projects for this year by sub-region. More than a third were delivered basin-wide (or multiple sub-regions) while approximately one quarter were located each in the Finlay and Parsnip sub-regions

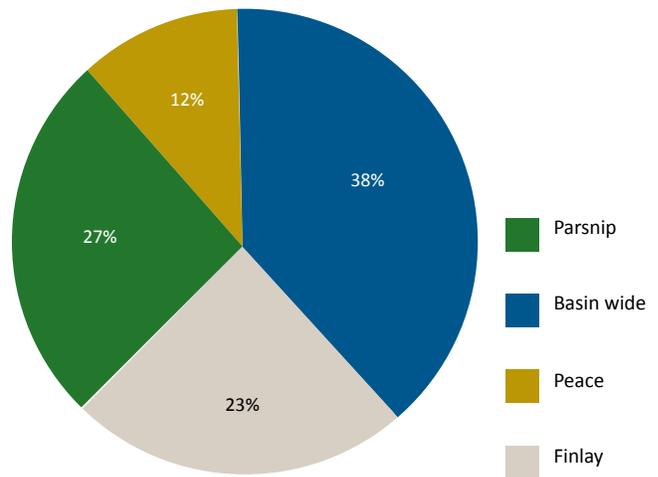


Figure 4.3 F22 Approved projects by sub-region

Community Engagement Grant

The goal of the Community Engagement Grant is to provide an opportunity for FWCP stakeholders and First Nations, bands, or groups to apply for a small grant to support conservation and enhancement work that aligns with our action plans. A total annual budget of \$5,000 is available.

Three Community Engagement Grant applications were received, with two withdrawn or rejected. The approved project was to support Science Week in Tsay Keh Dene led by Chu Cho Environmental for \$1,000.



With the help of a Community Engagement Grant, Science Week was held in Tsay Keh Dene to share information about local fish and wildlife projects. Photo: FWCP

5.0 Peace Region financial report

5.1 APPROVED BUDGET AND EXPENDITURES

Annual funding is allocated by our Peace Region board toward fish and wildlife projects, administration, and communications. These allocations form the annual operating plan budget. Any unallocated funds are carried forward as uncommitted available funds and are available for future spending.

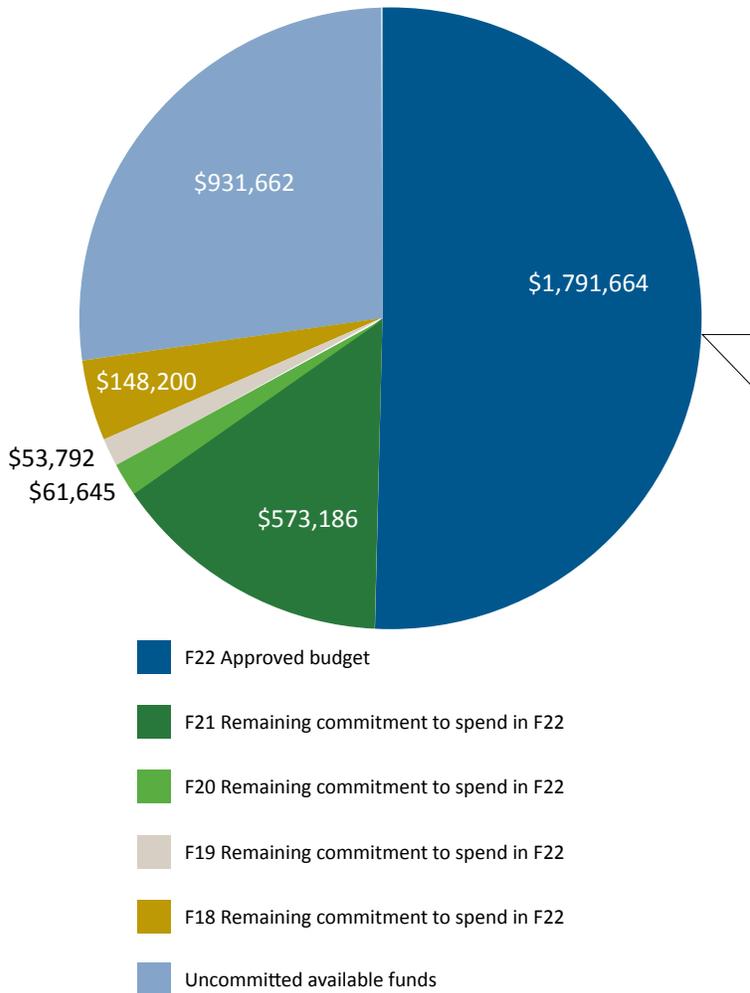


Figure 5.1. FWCP Peace Region financial summary as of April 1, 2021

Our Peace Region board approved an F22 budget of \$1,791,664. The annual funding from BC Hydro for the year was \$1,592,820 but due to surpluses from previous years, the board was able to allocate nearly \$1.67 million

Figure 5.1 shows a total of more than \$3.5 million in the FWCP Peace Region account as of April 1, 2021. This comprises the F22 approved budget of approximately \$1.79 million, a remaining unspent surplus (uncommitted available funds) of approximately \$932,000, and prior-year funding commitment allocations of approximately \$148,000, \$54,000, \$62,000, and \$573,000 for F18, F19, F20, and F21 respectively.

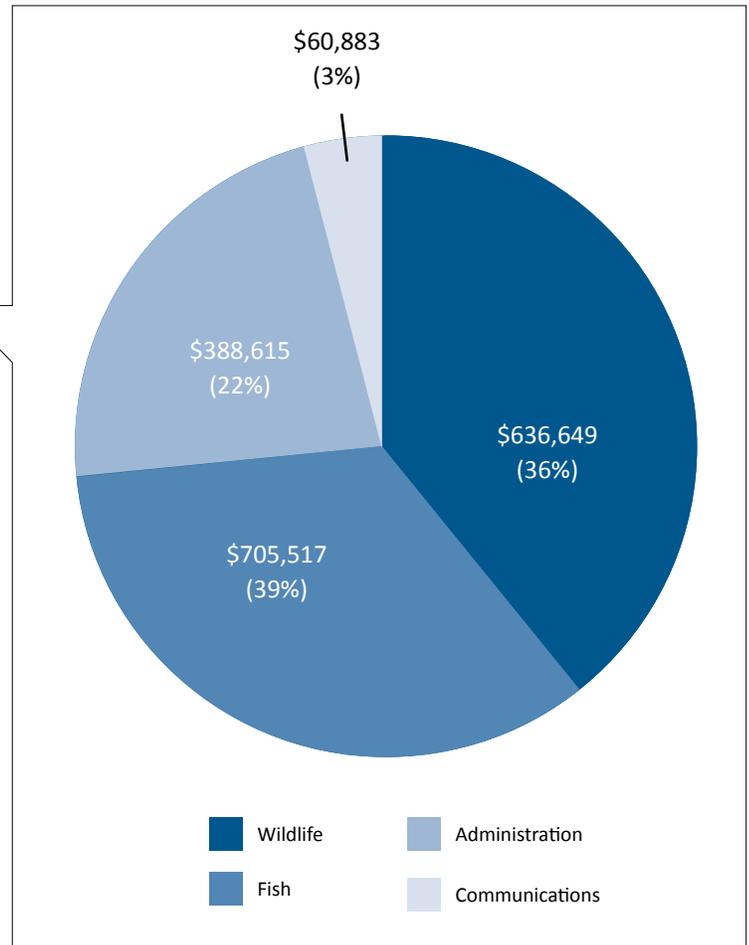


Figure 5.2. Breakdown of the approved Peace Region budget of approximately \$1.98 million as of April 1, 2021

Figure 5.2 illustrates the approved F22 budget as of April 1, 2021. Funding for wildlife projects made up 36% of the budget, and funding for fish projects made up 39%. Administrative costs made up approximately 22% of the total budget and include: regional manager salary and expenses; office-related expenditures; fees associated with uploading reports to the provincial data warehouses; maintenance and refinements to our grant management system; and support staff, board, First Nations Working Group, and technical committee costs. The remaining allocation was for communications, approximately 3% of the annual budget.

The FWCP encourages grant applicants to seek additional funding sources (e.g., other funding organizations and in-kind contributions) to leverage FWCP funding contributions. In F22, the FWCP funding allocation for grant application projects was just over \$1 million. The total value of the projects was approximately \$2.22 million as a result of financial partnerships and in-kind contributions.

Peace Region expenditures up to March 31, 2022 are shown in Table 5.1. This reflects a snapshot of actual and planned payments made related to F22 projects. Project funding each year may not be fully allocated by year-end and—as shown in Table 5.1—F22 allocated funds not yet expended by March 31, 2022, are labelled “planned payments.”

Table 5.1: Program expenditures to March 31, 2022

Fund Category	F22 Approved budget	Paid up to March 31, 2022	Planned payments ¹	Uncommitted available funds ²
Fish	\$705,517	\$ 444,044	\$215,210	\$46,263
Wildlife	\$636,649	\$325,865	\$306,050	\$4,734
Administration	\$388,615	\$226,844	\$162,048	\$(276)
Communications	\$60,883	\$46,963	\$13,920	\$ -
TOTAL	\$1,791,664	\$1,043,716	\$697,228	\$50,721

1. Planned payments represent expected invoices for approved ongoing projects that have not yet submitted final reports by March 31, 2022.

2. Uncommitted available funds are carried forward and made available for future spending.

In addition to the planned payments of \$697,228, the balance of prior-year funding commitments anticipated to be spent in F23 was \$210,271 from F21, \$35,907 from F20, \$19,239 from F19, and \$148,200 from F18, resulting in uncommitted available funds of \$944,272 (Figure 5.3).

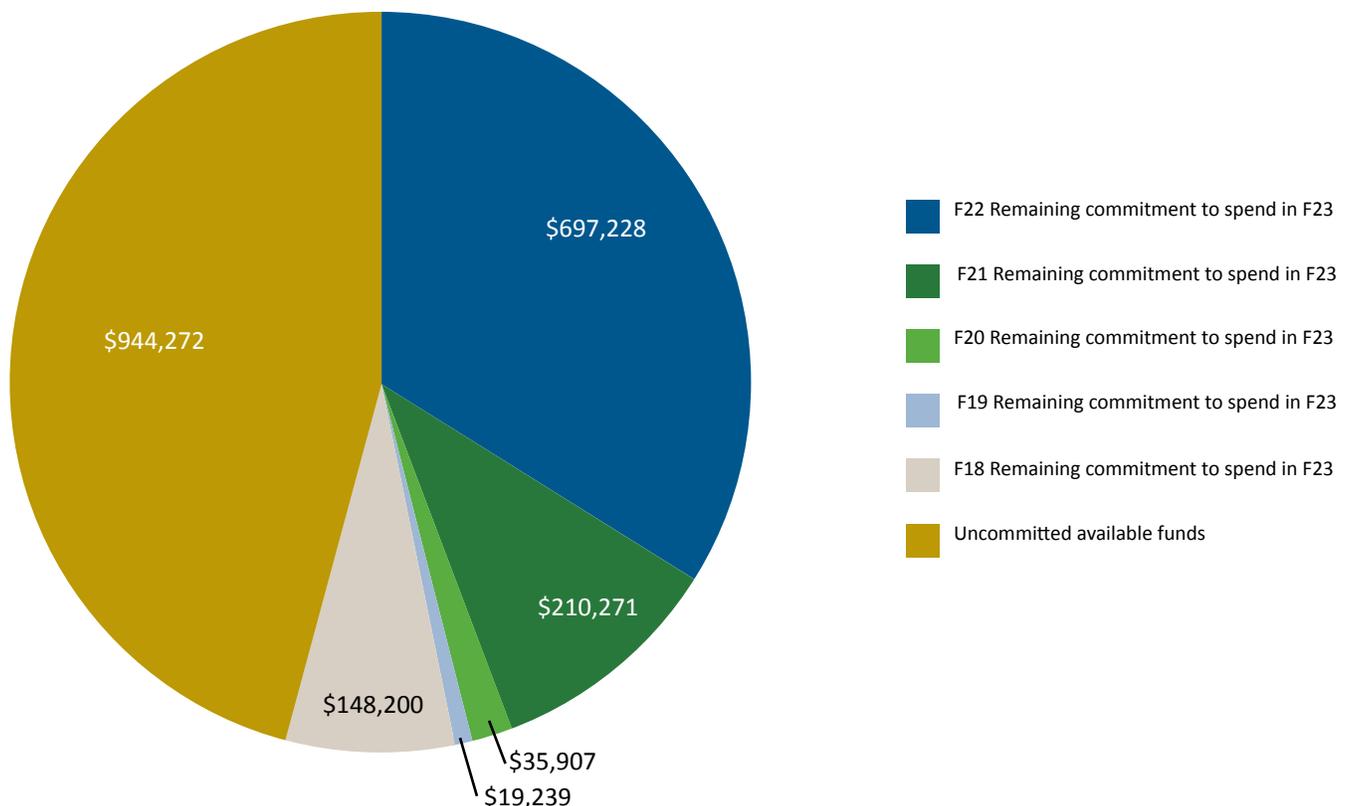


Figure 5.3: Financial summary of the FWCP's Peace Region as of March 31, 2022 (end of fiscal year)

6.0 F22 Peace Region projects

Table 6.1 provides a listing of 2021–2022 fish and wildlife projects approved for funding, including their alignment with action plan priorities. Funding identified in the following tables may vary from the approved budget, as of April 1, 2022, due to project budget increases or decreases as they progressed throughout the fiscal year. Final reports for all projects are posted to the appropriate provincial databases once available. Visit fwcp.ca/results for an updated list of all available final reports.

Table 6.1: 2021–2022 projects

Project ID	2021 - 2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-region
PEA-F22-F-3388	<p>Studying Arctic grayling and bull trout interactions in the Williston Reservoir</p> <p><i>Spatial Ecology of Arctic Grayling in the Parsnip Core Area: Year 4</i></p> <p>This multi-year project investigates the spatial ecology of subadult and adult Arctic grayling and their interactions with bull trout in the Parsnip River and its tributaries.</p> <p>Acoustic telemetry, capture-recapture, temperature data logging, stable isotope analysis, and spatial modelling approaches will be used to address the objectives.</p>	University of Northern British Columbia	\$ 138,100	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Parsnip Sub-region
PEA-F22-F-3404	<p>Improving understanding of fish ecology using eDNA</p> <p><i>Williston Reservoir Fish Ecology Assessed Using eDNA</i></p> <p>This project will use environmental DNA (eDNA) techniques to understand the ecology of fish species in the Williston Reservoir.</p> <p>Recent studies have demonstrated that the thermal stratification of the water column in lakes and the habitat selected by a particular species can influence the distribution of eDNA. The assemblage of species in the reservoir will be investigated using eDNA as means to improve understanding of potential interactions for three key species: kokanee, bull trout, and lake trout.</p>	University of Northern British Columbia	\$25,952	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Finlay Sub-region
PEA-F22-F-3407	<p>Studying Arctic grayling in our Peace Region</p> <p><i>2021 Parsnip Arctic Grayling Abundance and Critical Habitats: Year 4</i></p> <p>This multi-year project, delivered in partnership with the B.C. Ministry of Forests, Lands, Natural Resource Operations and Rural Development; McLeod Lake Indian Band; and the University of Northern British Columbia, will address important information gaps identified in the FWCP's Arctic Grayling Synthesis and Monitoring Framework.</p> <p>This project includes the fourth consecutive year of Arctic grayling abundance monitoring in index sections of the Anzac and Table rivers using replicated snorkeling surveys validated by mark-recapture. Snorkeling will be used to estimate Arctic grayling abundance and critical habitats in reaches of the Parsnip River Watershed that have not been surveyed.</p>	John Hagen and Associates	\$ 89,123	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Parsnip Sub-region
PEA-F22-F-3408	<p>Using eDNA to locate Arctic grayling</p> <p><i>Fish Sampling at eDNA Sites for Finlay Reach Arctic Grayling</i></p> <p>Environmental DNA (eDNA) sampling has detected Arctic grayling in five streams draining the eastern slope of Finlay Reach, where previous sampling efforts failed to find them. In particular, the distribution of eDNA presence in Ospika River and Collins Creek suggest these streams might provide critical habitats for early life histories. To investigate this possible scenario, fish sampling will be used to identify life histories present, begin estimating densities, and identify movements.</p> <p>Filling these data gaps might detect a possible new core area for Arctic grayling and determine its conservation status.</p>	Stamford Environmental	\$ 60,478	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Finlay Sub-region

Project ID	2021 - 2022 Grant-based Fish Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-region
PEA-F22-F-3424	<p>Assessing bull trout populations and habitats</p> <p><i>Bull Trout Spawner Abundance and Critical Habitats 2021: Year 1</i></p> <p>This multi-year information-gathering project will provide estimates of bull trout spawner abundance by performing counts of bull trout spawning sites (e.g., redds) within index sites in four streams monitored annually since 2001.</p>	Chu Cho Environmental LLP	\$ 85,408	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Basin-wide
PEA-F22-F-3433	<p>Assessing bull trout spawning habitat</p> <p><i>Peace Reach Bull Trout Spawning Zones</i> This project will use aerial and ground-based surveys in Peace Reach tributaries to refine estimates of bull trout critical spawning habitat boundaries and adult spawner abundance. The results of this project will address high-priority data gaps identified in the FWCP's Bull Trout Information Synthesis and Monitoring Framework.</p> <p>This project also builds on several past FWCP projects in which bull trout spawning zones and critical habitat were identified and redd abundance assessed, including the Nabesche and West Nabesche rivers, and Schooler, Carbon, Doucette, and Clearwater creeks.</p>	Diversified Environmental Services	\$ 43,832	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Peace Sub-region

Fish Project Total \$442,891

Project ID	2021 - 2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-region
PEA-F22-W-3386	<p>Improving the science about moose limiting factors</p> <p><i>Identifying Moose Summer Diets and Associated Habitat Use: Year 1</i></p> <p>This multi-year project aims to improve understanding of the summer diets of moose in the Parsnip sub-region, where current research shows moose are dying of apparent starvation. Multiple techniques (i.e., microhistology and DNA barcoding analysis) will be applied to summer moose droppings collected in 2021 and 2022 to determine summer diets.</p> <p>This work will identify plants—and, by association, habitats—important to moose in summer. The results of this two-year project could inform habitat mitigation actions for summer ranges.</p>	University of Northern British Columbia	\$44,453	Research & Information Acquisition	Riparian & Wetlands	Parsnip Sub-region
PEA-F22-W-3394	<p>Improving caribou calf survival and herd size through maternity penning</p> <p><i>Enhancing Caribou Survival in the Klinse-Za/Scott East Herd Area: Year 8</i></p> <p>This multi-year project aims to enhance the survival rate of caribou cows and calves in the Klinse-Za and Scott East herds.</p> <p>Pregnant cow caribou will be captured in early March and transported to a protective maternity pen located in natural calving range. The cows will be fed and monitored through late July, until calves have grown to a point where they are less susceptible to predation by wolves and bears. Then they will all be released back to the wild.</p>	Nikanēse Wah tzee Stewardship Society	\$41,205	Species-based Action	Uplands	Peace Sub-region
PEA-F22-W-3403	<p>Testing drones to monitor corridor restoration</p> <p><i>Monitoring Linear Corridor Restoration Using Drones</i> This Seed Grant project will investigate the utility of monitoring linear corridor restorations using unoccupied aerial vehicles (UAVs, or drones) through a literature review and a small-scale field trial. The intent is to apply drone monitoring to future linear corridor restoration projects in the FWCP's Peace Region.</p> <p>This approach is more cost-effective than other methods (e.g., camera-trap arrays and field-based vegetation assessments), and it might be an alternative tool for monitoring restoration success.</p>	Chu Cho Environmental LLP	\$ 5,000	Monitoring & Evaluation	Cross-ecosystem	Finlay Sub-region
PEA-F22-W-3409	<p>Improving the science about at-risk water shrews</p> <p><i>Studying American Water Shrew in the Peace with eDNA Methods</i> This Seed Grant project will focus on the Blue-listed American water shrew.</p> <p>It includes a literature review of the existing species data and an evaluation of the feasibility, costs, and limitations of using environmental DNA (eDNA) to aid in determining this shrew's range and distribution in the FWCP's Peace Region, and potential population threats.</p>	Blackbird Environmental Ltd.	\$ 4,200	Research & Information Acquisition	Riparian & Wetlands	Basin-wide
PEA-F22-W-3413	<p>Supporting habitat restoration trials for amphibians in our Peace Region</p> <p><i>Habitat Restoration and Priority Trials for Amphibians: Year 2</i> This multi-year project will support recovery actions for the at-risk western toad and will benefit other amphibians.</p> <p>The team will work with communities and organizations to identify and advance restoration projects that work in amphibian habitats (terrestrial and aquatic) across the FWCP's Peace Region.</p>	Ecologic Consultants Ltd.	\$107,584	Research & Information Acquisition	Riparian & Wetlands	Basin-wide

Project ID	2021 - 2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-region
PEA-F22-W-3414	<p>Caribou: confirming the benefits of supplemental feeding</p> <p><i>Physiological Effects of Supplemental Feeding in Caribou: Year 1</i> This multi-year project will provide insights into the mechanisms by which supplemental feeding influences caribou pregnancy rates and calf survival, and it will help evaluate whether feeding is most beneficial in spring or fall.</p> <p>Seven years of supplemental feeding of the Kennedy Siding herd appears to be increasing calf recruitment, but the mechanism by which population increases are occurring is unclear.</p>	University of Northern British Columbia	\$49,896	Research & Information Acquisition	Uplands	Parsnip Sub-region
PEA-F22-W-3415	<p>Restoring caribou habitat for Peace Region herd</p> <p><i>Restoring Caribou Habitat in the Klinse-Za/Scott East Herd: Year 3</i> This multi-year project will focus on the continued implementation and monitoring of the functional and ecological restoration of linear corridors, including three new road networks that have been identified for restoration in 2021.</p> <p>Outcomes from year three will include the restoration of ~23 km of linear corridors, ultimately resulting in the reduction of human access and predator use, and the acceleration of forest regeneration to support the at-risk Klinse-Za/Scott East caribou herd.</p>	Nikanêse Wah tzee Stewardship Society	\$114,769	Habitat-based Action	Uplands	Basin-wide
PEA-F22-W-3419	<p>Developing a moose habitat enhancement project</p> <p><i>McLeod Lake Moose Habitat Enhancement Project</i> This Seed Grant project will support the development of a Large Grant application for a multi-phased moose habitat enhancement project in the McLeod Lake area.</p> <p>Recent declines in moose abundance across the central interior of B.C. have resulted in increased concerns over sustenance harvest requirements for First Nations.</p> <p>While the direct cause of population decline is unknown, the leading hypotheses are the loss of mature forest canopy for thermal cover and security, more roads providing access for hunters and predators, and reduced forage quality.</p>	McLeod Lake Indian Band	\$ 5,000	Habitat-based Action	Riparian & Wetlands	Parsnip Sub-region
PEA-F22-W-3428	<p>Monitoring lichen restoration for caribou</p> <p><i>Monitor Cladonia Subgenus Cladina Lichen Restoration Trials</i> This monitoring project will collect monitoring data from years five and six following two terrestrial lichen transplant trials within the boundary of the Chase caribou herd's range. This monitoring data will help determine the viability of Cladonia subgenus cladina lichen transplants—an important winter food source for caribou—as a tool to restore post-wildfire environments to functional winter caribou habitat.</p> <p>This project supports the Species at Risk Act section 11 agreement, which recommends that existing lichen seeding restoration trials within the Chase caribou range are monitored.</p>	Chu Cho Environmental LLP	\$ 35,116	Monitoring & Evaluation	Cross-ecosystem	Finlay Sub-region
PEA-F22-W-3430	<p>Assessing Chase caribou response to habitat alterations in our Peace Region</p> <p>Chase Caribou Herd Response to Habitat Alterations: Year 5 In the final year of this multi-year project work will continue to assess the influence of habitat changes on caribou by monitoring collared caribou—including habitat use, adult mortality, and calf survival—and their habitat.</p> <p>These results will be compared to similar data collected before 2009. This contrast will help identify the potential impacts associated with recent disturbances and the conservation measures necessary to ensure the resiliency of the Chase herd for future generations.</p>	Wildlife Infometrics Inc.	\$ 59,982	Research & Information Acquisition	Uplands	Finlay Sub-region

Project ID	2021 - 2022 Grant-based Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-region
PEA-F22-W-3431	<p>Assessing the health of Stone's sheep in our Peace Region</p> <p><i>Health and Behaviour of B.C.'s Southernmost Stone's Sheep: Year 3</i> This multi-year project started as a Seed Grant. It focuses on the two southernmost functionally viable Stone's sheep populations: the Dunlevy and Schooler herds. Due to their proximity to domestic farms and overlap with elk, these wild sheep are at high risk.</p> <p>The project will assess their health and examine population demographics, behaviour, distribution, and habitat use through the use of GPS collars. In this year of the project, health reassessments will continue and up to 14 more sheep will be collared.</p> <p>Information gained from this project could be used to inform future conservation and enhancement actions for Stone's sheep.</p>	Wild Sheep Society of British Columbia	\$ 38,387	Research & Information Acquisition	Uplands	Peace Sub-region
PEA-F22-W-3432	<p>Building ecological awareness in our Peace Region</p> <p><i>Williston School Ecology Program: Year 8</i> This multi-year project will improve understanding of local ecology for Peace Region elementary and high-school students.</p> <p>Students will gain hands-on experience with species and habitats of interest in their own communities through field trips, interaction with local First Nations elders and natural resource experts, and classroom activities integrated with the provincial curriculum. Grade-specific modules are tailored to complement standard curricula.</p> <p>This project will emphasize the importance of natural resources to human livelihoods and well-being, and it will foster an appreciation of native flora and fauna.</p>	Wildlife Infometrics Inc.	\$ 28,194	Research & Information Acquisition	Cross-ecosystem	Basin-wide
PEA-F22-W-3435	<p>Monitoring waterfowl nesting structures</p> <p><i>Monitoring Parsnip & Dinosaur Waterfowl Nesting Enhancements</i> This project will monitor and assess the initial use and efficacy of waterfowl nesting enhancements installed in 2020.</p> <p>The novel nesting island design was developed and launched throughout the Parsnip and Dinosaur reaches as a way of creating cost-effective, portable, suitably buoyant nesting structures with increased longevity and habitat benefits equivalent to or better than the traditional wooden designs.</p>	Blackbird Environmental Ltd.	\$ 18,937	Monitoring & Evaluation	Cross-ecosystem	Basin-wide
PEA-F22-W-3436	<p>Implementing moose and caribou habitat restoration</p> <p><i>TKDN Moose & Caribou Habitat Restoration & Protection Plan</i> This project will support a joint moose and caribou habitat restoration and protection plan developed by the Tsay Keh Dene Nation.</p> <p>These species are deeply ingrained in the Nation's culture for their sustenance and their spiritual and ecological value. Today, these species present competing values on the land, as industrial disturbances alter habitat structure and function.</p>	Chu Cho Environmental LLP	\$ 44,452	Research & Information Acquisition	Riparian & Wetlands	Finlay Sub-region
	<p>Supporting community-based projects</p> <p>F22 Community Engagement Grant Our Peace Region board approved funding for Community Engagement Grants. These grants of up to \$1,000 support multiple projects led by stewardship groups, First Nations, and others to benefit fish and wildlife throughout the year.</p>	TBD	\$ 5,000	-	-	Basin-wide

Wildlife Project Total \$602,174

Project ID	2021 - 2022 Direct Fish and Wildlife Projects	Project Lead	FWCP Funding	Project Type	Action Plan Alignment	Sub-region
	<p>Assessing kokanee in our Peace Region</p> <p><i>F22 Kokanee Spawning Surveys: Year 4</i> This multi-year project will provide a fourth year of kokanee spawning surveys to assess the abundance and distribution of kokanee within tributaries of the Williston Reservoir.</p>	DWB Consulting Services Ltd.	\$ 75,650	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Basin-wide
	<p>Supporting Mugaha Marsh Bird Banding Station</p> <p><i>F22 Mackenzie Nature Observatory: Year 4</i> This long-term, multi-year project will add to 20-plus years of bird monitoring data. The 2021 data will provide important information on breeding bird population trends, distribution, and health, which can guide species conservation and habitat enhancement initiatives in the region.</p> <p>Mackenzie Nature Observatory operates the Mugaha Marsh Sensitive Area Bird Banding Station on the Parsnip Reach of the Williston Reservoir.</p>	Mackenzie Nature Observatory	\$ 20,475	Research & Information Acquisition	Cross-ecosystem	Parsnip Sub-region
	<p>Helping UNBC share fish and wildlife knowledge</p> <p><i>F22 UNBC Presentation Series</i> This multi-year project provides education and outreach by building connections and developing relationships through a series of free presentations focused on research that is underway in, or could be applied to, our Peace Region.</p>	University of Northern British Columbia	\$ 14,000	Research & Information Acquisition	Cross-ecosystem	Basin-wide
	<p>Improving fish passage</p> <p><i>F22 Fish Passage with Society for Ecosystem Restoration in Northern BC: Year 1</i> This multi-year project will prioritize fish passage restoration options based on recommendations from a previously funded project (PEA-F20-F-2967).</p> <p>Work will include engagement with potential restoration partners, the development of remediation actions to improve fish passage, and the design of monitoring programs that will help inform future research, conservation, and restoration actions.</p>	Society For Ecosystem Restoration in Northern BC	\$ 54,476	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Parsnip Sub-region
PEA-F22-F-3587-DCA	<p>Understanding limiting factors for key fish species</p> <p><i>F22 Williston Reservoir Pelagic Fish Survey</i> This survey project is an important first step toward understanding current conditions in the complex Williston Reservoir.</p> <p>A hydroacoustic-trawl survey and gillnet calibration over the entire reservoir will assess the abundance, biomass, and relative dominance of pelagic-dwelling fish, mainly kokanee and lake whitefish, which appear to comprise the majority of the diet of piscivorous fish rearing in the reservoir (e.g., bull trout and lake trout). Monitoring shared prey resources is a key part of understanding limiting factors for bull trout and lake trout in the reservoir.</p>	Ministry of Forests, Land, Natural Resource Operations and Rural Development; Consultant/Registered Business (TBD)	\$ 132,500	Research & Information Acquisition	Rivers, Lakes, & Reservoirs	Basin-wide

Direct Project Total: \$297,101

2021 - 2022 Project Funding Approved Total: \$1,342,166