



Our File No.: 2021-03-04

March 30, 2022

MICHAEL A. PICKUP

Auditor General of British Columbia
623 Fort Street
Victoria, BC V8W 1G1

VIA EMAIL: bcauditor@bcauditor.com

Dear Mr. Pickup:

RE: REQUEST FOR AN AUDIT AND EXAMINATION OF BC HYDRO FUNDING OF THE FISH AND WILDLIFE COMPENSATION PROGRAM – AND THE PROPRIETY OF THE PROGRAM’S DISTRIBUTION OF HYDRO FUNDS

On behalf of the B.C. Wildlife Federation (BCWF),¹ we hereby request that you undertake an audit and examination of:

1. BC Hydro’s funding of the Fish and Wildlife Compensation Program (FWCP); and
2. The propriety of the FWCP’s current distribution of BC Hydro funds for fish and wildlife compensation projects.²

Dams built and operated by BC Hydro have caused some of the most serious environmental harms in British Columbia’s history. A number of our most fertile and ecologically productive river valleys have been permanently flooded, destroying vast areas of habitat and heavily impacting species. While hydroelectric development in places such as the Columbia River and the Peace River has been key to BC’s economic prosperity, Hydro development has come at an enormous cost to the environment.

Therefore, it has long been recognized that BC Hydro is obligated to *compensate* for the losses to fish and wildlife that it has created. As a condition of BC Hydro’s water licences in the Columbia³ and Peace⁴ Regions, BC Hydro is required to compensate for the negative environmental impacts

¹ The BCWF is a provincial conservation organization and a registered charity. The organization focuses on fish and wildlife conservation, public interest advocacy, and environmental education. With 43,000 members, the BCWF is BC’s “leading conservation organization.” See “Our History” (2021), online: *B.C. Wildlife Federation* <<https://bcwf.bc.ca/our-history/>>; see also “Vision, Mission & Values” (2021), online: *B.C. Wildlife Federation* <<https://bcwf.bc.ca/vision-mission-values/>>.

² The FWCP is comprised of representatives from BC Hydro, the BC Government, Fisheries and Oceans Canada, First Nations, and public stakeholders, and distributes BC Hydro funds to individual projects, with the goal of compensating for fish, wildlife, and habitat impacted by BC Hydro dams. See “Our Story” (2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/our-story/>>.

³ The Columbia Region encompasses the Canadian Columbia and Kootenay River watersheds. See “Columbia Region: Overview & Action Plans” (21 August 2019), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>.

⁴ The Peace Region encompasses the upper Peace watershed, including Dinosaur Lake, Williston Reservoir, and all tributary watersheds. See “Fish and Wildlife Compensation Program – Governance Manual” (1 February 2018) at 4,



caused by dam construction.⁵ To uphold these legal and moral obligations, BC Hydro annually funds the FWCP to distribute the Hydro funding to individual fish and wildlife compensation projects.⁶

We submit that the FWCP's current governance structure and project funding regime fail to ensure that BC Hydro funds distributed by the Program uphold BC Hydro's obligations to compensate for its environmental impacts. As it is currently structured, the FWCP approves and finances a significant number of projects which do not actually constitute "compensation" work. Rather, many projects funded by BC Hydro through the FWCP simply subsidize pre-existing BC government responsibilities, including such things as monitoring work, educational work, and invasive species management.

We submit that BC Hydro fish and wildlife compensation obligations are not properly met when Hydro's "compensation" funding fails to actually compensate for losses – but merely subsidizes routine government functions, with little connection to real amelioration of dam damage. This failure of a designated "Compensation Program" to actually "compensate" for the damage done to habitat and species has profound implications for the province.

We urge you to undertake this examination pursuant to the following provisions of the *Auditor General Act* (AGA):

- Section 11(8), which authorizes you to assess whether government organizations are "operating economically, efficiently and effectively;"
- Section 13, which allows you to undertake this examination if it is in the public interest to do so; and
- Section 12, which grants you the broad and general power to make a report to the Legislative Assembly, as you deem fit.⁷

The requested audit would examine the expenditure of BC Hydro funds to the Fish and Wildlife Compensation Program – and the Program's distribution of those Hydro funds in order to meet BC Hydro's Water Licence obligations to compensate for damage done by BC Hydro facilities.

The Auditor General clearly has jurisdiction to conduct such an audit of BC Hydro, as a Crown Corporation. The Auditor General has already conducted a number of audits of BC Hydro pursuant to s. 11(8).⁸ It is clearly in the public interest to determine if BC Hydro is upholding its Water Licence and other obligations when it dispenses funds that are not apparently being used for the intended purpose of ecological compensation.

online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵ See "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁶ See "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at Forward and p.1, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁷ *Auditor General Act*, SBC 2003, c 2, s 11(8); s 13 and s 12.

⁸ Including "Independent Audit of Capital Asset Management in BC Hydro" (December 2018) see p.2, and "BC Hydro: The Effects of Rate-Regulated Accounting" (October 2011), see p5. Note that section 32(7)(a) of the *Hydro and Power Authority Act* states that the *Auditor General Act* applies to B.C. Hydro. Also see "What We Do" (2021), online: *Office of the Auditor General of British Columbia* <<https://bcauditor.com/about-us/what-we-do>>; see also generally *Auditor General Act*, SBC 2003, c 2.

CONTENTS

OVERVIEW OF ARGUMENTS.....	5
BC HYDRO FOOTPRINT IMPACTS.....	6
COMPENSATION AND OVERARCHING LEGAL FRAMEWORK.....	8
Legal Framework.....	8
Water Licence Conditions	8
WORKING DEFINITION OF “COMPENSATION”	9
Ecological Compensation	10
FISH AND WILDLIFE COMPENSATION PROGRAM.....	12
Overview	12
1. Regions	13
2. Mission & Objectives	13
3. Current Governance Structure	14
4. 2019 Independent Audit.....	16
Past AND Present Compensation Commitments	17
A REVIEW OF FISH AND WILDLIFE COMPENSATION PROGRAM-FUNDED PROJECTS.....	18
Methodology.....	18
Columbia Region	21
Peace Region	24
THE CENTRAL PROBLEM: A FAILURE TO UPHOLD BC HYDRO’S LEGAL OBLIGATIONS.....	27
Inadequate Compensation	28
Subsidizing Government Responsibilities.....	28
The Bigger Picture: The amount of funding Provided for Fish and Wildlife Compensation should be enhanced by an order of magnitude	30
MOVING FORWARD	30
More on the Auditor General’s Legal Authority to Investigate	31
BCWF Recommendations.....	31
CONCLUSION	32
APPENDIX I: WATER LICENCE CONDITIONS.....	35
APPENDIX II: COMPENSATION DEFINITIONS	39
APPENDIX III: PROJECT INVESTMENT CRITERIA.....	41
APPENDIX IV: PAST & PRESENT COMPENSATION COMMITMENTS	42
APPENDIX V: PROJECTS CLASSIFIED AS “DEFINITELY NOT”	44
Columbia Region	44
Peace Region	48
APPENDIX VI: PROJECTS CLASSIFIED AS “MAYBE”	51

APPENDIX VII: 1992 MOU BETWEEN BC HYDRO AND BC MINISTRY OF THE ENVIRONMENT.....	53
APPENDIX VIII: RICK MORLEY STATEMENT – FORMER BC GOVERNMENT REGIONAL MANAGER OF FISH AND WILDLIFE; LONG-TIME CO-CHAIR AND MEMBER OF THE FWCP	55
APPENDIX IX: PERSONAL COMMUNICATIONS FROM HARVEY ANDRUSAK, FORMER PRESIDENT OF THE BC WILDLIFE FEDERATION	57
APPENDIX X: 2013 LETTER TO VARIOUS MINISTRIES	59
APPENDIX XI: 2015 LETTER TO BC HYDRO	62
APPENDIX XII: 2017 LETTER TO MINISTER OF ENERGY, MINES AND PETROLEUM RESOURCES.....	64
APPENDIX XIII: BCWF INTERNAL INFORMATION NOTE EXCERPT	66

OVERVIEW OF ARGUMENTS

These submissions proceed as follows:

1. We highlight the significant environmental impacts caused by the construction of BC Hydro dams in the Columbia and Peace Regions.
2. We outline BC Hydro's legal obligations to compensate under its water licences, offering a working definition of "compensation"⁹ to ground these submissions.
3. We provide a brief overview of the FWCP and how it works to fulfill BC Hydro's obligations by distributing Hydro funds.
4. We use our definition of compensation and publicly available FWCP documents to conduct a review of projects funded by the FWCP between 2014 and 2022.¹⁰
5. We conclude that FWCP is failing to adequately fund "compensation" work. Rather, a significant proportion of its annual budget goes to subsidizing government responsibilities and funding other non-compensatory work.
6. We summarize your legal authority to investigate this issue and offer recommendations for moving forward.

Overall, we argue that the FWCP is failing to adequately focus on its sole responsibility – *compensating* for the species and habitats lost due to the footprint impacts of BC Hydro dams. Rather, a review of FWCP-funded projects highlights that funding is often used to support work that the provincial government is mandated to do. This situation requires an Auditor General examination to ensure that:

- BC Hydro upholds its legal obligations;
- Crown Corporation funds are spent appropriately, "efficiently," "effectively" and "in the public interest;"¹¹
- Compensation for habitat loss and damage created by BC Hydro dams is adequately funded;
- British Columbia's natural heritage is enhanced and protected for generations to come; and

⁹ "Compensation" is not defined in the relevant water licences, the *Water Sustainability Act*, or the FWCP's governing documents. Therefore, we canvassed the literature and commitments made by BC Hydro and the FWCP to create a working definition of compensation against which to assess the FWCP's recently-funded projects.

¹⁰ These years were selected for two reasons. First, these are the years for which project information is publicly available for both the Columbia and Peace Regions. Second, these years largely correspond with those assessed in a 2019 independent audit of the FWCP, allowing for comparison between interviewee statements, audit results, and project data. While project reports are available back to 1991, we submit that the results of our analysis provide more-than-sufficient evidence to support an audit of the FWCP and an examination of whether BC Hydro is upholding its legal obligations to compensate for the footprint impacts of its dams in the Columbia and Peace Regions. See e.g. Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>; see also e.g. "Project Lists" (2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/projectlists/>>.

¹¹ As per s. 11(8)(b) and s. 13(3) of the *Auditor General Act*.

- Ensure that the corporation (BC Hydro) that created the original environmental impacts is not in undue control of compensation programs – due to the inherent conflict of interest between corporate objectives and these responsibilities.

BC HYDRO FOOTPRINT IMPACTS

With 82 dams throughout the province,¹² BC Hydro has significantly impacted the fish, wildlife, and ecosystems of British Columbia. While largely indistinguishable ecologically, BC Hydro and the Comptroller of Water Rights (the “Comptroller”) distinguish between “footprint” impacts and day-to-day “operational” impacts. As a condition of its water licences, BC Hydro is required to compensate for *footprint* impacts. Footprint impacts “refer to the permanent loss of habitat associated with the dam and related infrastructure, including the permanently flooded habitat...resulting from reservoir creation.”¹³

The “footprints” left by BC Hydro dams throughout the province are substantial. Vast reservoirs have flooded some of the finest habitat in the province. Best estimates of habitat losses suggest that BC Hydro alone has eliminated an area of habitat approximately twice the size of Hong Kong throughout the mainland. In the Columbia Region, the construction of BC Hydro dams permanently eliminated more than 600 km² of habitat. While footprint impacts have yet to be fully studied in the Peace Region, dam construction likely caused the permanent loss of at least 1,500 km² of habitat.¹⁴ Other examples of BC Hydro’s footprint impacts include:

- Loss of endangered white sturgeon habitat;¹⁵

¹² “Dam safety FAQ” (2021), online: BC Hydro <<https://bchydro.com/energy-in-bc/operations/dam-safety/dam-safety-faq.html>>.

¹³ In contrast, “operational impacts” are those caused by day-to-day operations post-construction, including fluctuations in hydrology and barriers to fish migration. For information on the different types of impacts, see “Fish and Wildlife Compensation Program – Governance Manual” (1 February 2018) at 5, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>. Operational impacts are addressed through Water Use Plans, which are ordered by the Comptroller under the *Water Sustainability Act* (WSA) and implemented by BC Hydro. These documents and obligations fall beyond the scope of this review and submission. See “Fish and Wildlife Compensation Program – Governance Manual” (1 February 2018) at 5, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>; see also “Water Use Plans” (2021), online: BC Hydro <https://bchydro.com/toolbar/about/sustainability/conservation/water_use_planning.html>; see also generally *Water Sustainability Act*, SBC 2014, c 15.

¹⁴ See “Columbia Region: Overview & Action Plans” (21 August 2019), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>; “Peace Region: Riparian & Wetlands Action Plan” (11 August 2020) at 7-8, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/12/Action-Plan-Peace-Region-Riparian-and-Wetlands-Jan-8-2021.pdf>>; “Peace Region: Cross-Ecosystem Action Plan” (11 August 2020) at 7, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Cross-Ecosystem-Aug-11-2020.pdf>>. The size comparison estimate is based on an assumption of habitat loss equal to 2,140 km² or approximately 500,000 acres. See “Area Converter” (2021), online: World Land Trust <<https://worldlandtrust.org/get-involved/educational-resources/area-converter/>>.

¹⁵ “Columbia Region: Reservoirs & Large Lakes Action Plan” (21 August 2019) at 9, online (pdf): *Fish and Wildlife Conservation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Reservoirs-Large-Lakes-Aug-21-2019.pdf>>; see also e.g. “White Sturgeon: Habitat alteration and declining water quality threaten the survival of this species in British Columbia” (1997), online (pdf): *Ministry of Environment, Lands and Parks*

- Increases in environmental methylmercury concentrations;¹⁶
- Significant changes in water quality, including decreases in nutrient concentrations and fluctuations in turbidity;¹⁷ and
- Drastic losses in ecosystem productivity, with an estimated 800,000 tonnes of carbon lost per year in the Columbia Region alone.¹⁸

The negative footprint impacts of dams have long concerned conservation organizations, led by the BC Wildlife Federation. In the early 1970s, the Comptroller held several public hearings to determine if BC Hydro should be issued water licences allowing it to construct dams and, if so, under what conditions. The BCWF actively participated in these hearings, arguing that BC Hydro should be required to compensate for the loss of fish, wildlife, and habitat caused by dam construction. The Comptroller agreed, including compensatory obligations in BC Hydro's water licences.¹⁹ Harvey Andrusak, former president of the BCWF, notes that this "was a gamechanger as BC Hydro was forced to account for losses due to construction of the dam[s] and actual dollars were committed for compensation."²⁰

After the hearings, BC Hydro and the provincial government agreed that BC Hydro would pay annual funds to the BC Government's Fish and Wildlife Branch to conduct compensation work on the ground.²¹ Rick Morley – former Regional Manager of the BC Government Kootenay Regional Fish and Wildlife Program and former co-chair of the FWCP Columbia Region Board – notes that this arrangement worked quite effectively until BC Hydro requested a shift in control over the distribution of Hydro's funds for compensation. About 30 years ago, government agreed to this request – leading to the creation of the FWCP Peace Region in 1988 and the FWCP Columbia Region in 1993.²²

https://gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/species-ecosystems-at-risk/brochures/white_sturgeon.pdf.

¹⁶ "Peace Region: Cross-Ecosystem Action Plan" (11 August 2020) at 7, 9, 13, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Cross-Ecosystem-Aug-11-2020.pdf>>; see also e.g. Ryan SD Calder et al, "Future Impacts of Hydroelectric Power Development on Methylmercury Exposures of Canadian Indigenous Communities" (2016) 50:23 *Enviro Sci Tech* 13115.

¹⁷ "Columbia Region: Reservoirs & Large Lakes Action Plan" (21 August 2019) at 8-9, online (pdf): *Fish and Wildlife Conservation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Reservoirs-Large-Lakes-Aug-21-2019.pdf>>.

¹⁸ "Columbia Region: Overview & Action Plans" (21 August 2019) at 7, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>.

¹⁹ See Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF. See also Appendix I: Water Licence Conditions.

²⁰ See Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF.

²¹ In the Columbia Region, BC Hydro was to pay \$3.5 million annually, indexed for inflation. We were unable to access the necessary information to determine initial funding agreements for the Peace Region. See Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF; see also "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 10, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

²² The Peace Region FWCP was created in 1988 and the Columbia Region FWCP was created in 1993. See Appendix VIII: Rick Morley Statement; see also e.g. "Peace Region: Overview & Action Plans" (11 August 2020) at 10, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Overview-Aug-11-2020.pdf>>.

COMPENSATION AND OVERARCHING LEGAL FRAMEWORK

In this section, we submit that:

- Fresh water resources in British Columbia are regulated by the *Water Sustainability Act* (WSA);
- The WSA requires BC Hydro to hold water licences for its dams and to abide by the conditions set out in its licences;
- BC Hydro's water licences require it to develop programs to protect and enhance species and habitat and to mitigate habitat losses; and
- These compensatory obligations arise from the fact that BC Hydro has significantly and permanently altered ecosystems throughout the province.

LEGAL FRAMEWORK

Surface and ground water in BC are legally considered to be the property of the provincial government. Private and public uses of freshwater in the province are regulated by the *Water Sustainability Act* (WSA), which provides the following:

- Section 9(g) authorizes the Comptroller to issue BC Hydro water licences allowing it to use and divert freshwater resources;²³
- Section 7 provides holders of water licences with certain rights, including the right to divert and beneficially use water; the right to construct, maintain, and operate certain works, including dams; and the right to make necessary changes to streams;²⁴ and
- Section 8 clarifies that exercising a right under a water licence must be done in a manner that complies with the WSA, the terms and conditions of the licence, and any applicable orders made by the Comptroller.²⁵

In clarification letters to BC Hydro, the Comptroller has noted: "BC Hydro is in compliance with clause[s] of the licence[s] as long as the Fish and Wildlife Compensation Programme is in place, adequately funded, and fulfilling its needs and obligations."²⁶ While the FWCP is "in place," we submit that it is neither adequately funded nor fulfilling its needs and obligations.

WATER LICENCE CONDITIONS

The *Water Sustainability Act* requires BC Hydro to obtain water licences for its dams and to uphold any terms and conditions set out in the licences. In the Columbia and Peace Regions, BC Hydro's water licences set out that BC Hydro must establish and carry out a program to protect or enhance

²³ *Water Sustainability Act*, SBC 2014, c 15, s 9(g).

²⁴ *Water Sustainability Act*, SBC 2014, c 15, s 7.

²⁵ *Water Sustainability Act*, SBC 2014, c 15, ss 1, 8.

²⁶ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 5-6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

fisheries and wildlife habitat, with some licences focusing more specifically on mitigating habitat losses.²⁷

The conditions included in BC Hydro's water licences are extremely general, failing to explain exactly what is required of "remedial measures" or "programs for the protection or enhancement of habitat."²⁸ These details were included in administrative agreements between BC Hydro and the provincial government.²⁹ The FWCP was developed as a result of these administrative agreements and, eventually, "was extended to address the footprint impacts of all watersheds affected by the development of existing BC Hydro [dams] regardless of the existence of a water licence condition."³⁰

However, regardless of specific measures or operating agreements, the reason for the inclusion of compensatory obligations in BC Hydro's water licences remains the same: BC Hydro dams both drastically alter and permanently eliminate fish and wildlife habitat. Therefore, BC Hydro is responsible to make best efforts to restore, remediate, compensate or offset habitat and species loss. In turn, that compensatory mission is the central *raison d'être* of the Fish and Wildlife Compensation Program.

WORKING DEFINITION OF "COMPENSATION"

In this section, we submit that:

- Neither BC Hydro's water licences nor any statutory or regulatory instruments provide a definition of what constitutes "compensation;"

²⁷ See Appendix I: Water Licence Conditions for the text of BC Hydro's water licence conditions related to fish and wildlife compensation.

²⁸ While not yet constructed, the language of the condition included in the water licence issued for the proposed Site C Dam offers insight into current understandings of BC Hydro's compensatory obligations. Clause (o) of this licence states that:

Remedial measures for the protection or enhancement of fisheries and wildlife habitat shall be carried out as directed by the Comptroller of Water Rights after consultation with the licensee and fisheries and wildlife agencies. The remedial measures include programmes such as an adequately funded Peace Site C Fish and Wildlife Compensation Program and other studies related to these resource values, which pertain to the impacts of construction, footprint, and continuing operations of the project. The licensee is required to assess the extent of these impacts at the end of the first five years of operation and report to the Comptroller of Water Rights on whether compensation funding is adequate to address these impacts. Should funding for fish and wildlife protection or enhancements and compensation programmes be inadequate to meet objectives in a timely manner, the licensee may be directed to provide additional funding.

"Conditional Water Licence No 132990" (26 February 2016), online: *Government of British Columbia* <<https://j200.gov.bc.ca/pub/ams/Download.aspx?PosseObjectId=100269801>>.

²⁹ While the conditions note that measures will be directed by the Comptroller, Connie Chapman, Manager and Deputy Comptroller of Water Rights has confirmed to Harvey Andrusak that, in practice, the provincial government and BC Hydro worked out the specifics through a series of negotiations and administrative agreements. See Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF.

³⁰ Additionally, these administrative agreements have since been consolidated into and replaced by the FWCP's Governance Manual, which currently guides program implementation. "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

- Experts around the world have struggled with defining ecological compensation, but largely agree that it encompasses, at minimum, restoration work and measures taken to *actively* compensate for adverse impacts; and
- Expert-supported definitions and the conditions included in BC Hydro's water licences support the conclusion that BC Hydro must fund measures that *actively compensate* for the footprint impacts of its dams. (Real world restoration, replacement and enhancement of habitat and species populations is compensation. On the other hand, routine measures normally carried out by government – such as monitoring efforts, studies, invasive species measures, technology development and public education initiatives – do not generally *compensate* for habitat and species impacts.)

ECOLOGICAL COMPENSATION

As highlighted above, BC Hydro's water licences fail to clarify what is required of "remedial measures" for and "programs for the protection or enhancement" of fish, wildlife, and habitat. Neither the licences, the WSA, nor any of the FWCP's governing documents include a definition of "compensation." Therefore, to assess whether BC Hydro is upholding its legal obligations through the FWCP, we canvassed the literature to develop a working definition of "compensation."

Defining ecological compensation³¹ As Swedish agricultural scientist Jesper Persson highlights, the "number of definitions of the concept almost equals the number of authors discussing the subject."³² Additionally, there are a number of largely interchangeable terms used to describe compensatory efforts, including "compensation," "restoration," and "offsetting."³³ While the BC Government does not directly define "compensation," its Environmental Mitigation Policy defines offsets as a means "to counteract, or make up for, an impact on [the environment] that cannot be adequately addressed through other...measures in the [mitigation] hierarchy."³⁴

The "mitigation hierarchy" is a widely accepted framework used by extractive and other environmentally disruptive industries to guide their activities with the ultimate goal of minimizing

³¹ We use the term "ecological compensation" to refer to fish, wildlife, and habitat compensation collectively.

³² Jesper Persson, "Perceptions of environmental compensation in different scientific fields" (2013) 70:4 Intl J Enviro Stud 611 at 611.

³³ Biodiversity offsets are "measurable conservation outcomes designed to compensate for adverse and unavoidable impacts of projects." In other words, they are tangible projects usually conducted outside of the development area designed to support an outcome of "no-net loss" of biodiversity. See "Biodiversity offsets" (February 2021), online: International Union for Conservation of Nature <<https://iucn.org/resources/issues-briefs/biodiversity-offsets>>. The World Wide Fund for Nature clarifies that biodiversity offsets can be considered to be a subset of compensatory mechanisms. Martha Stevenson, "First Things First: Avoid, Reduce...and only after that-Compensate" (27 April 2020), online: WWF <https://www.panda.org/wwf_news/?362819/First-Things-First-Avoid-Reduce--and-only-after-thatCompensate>.

³⁴ "Policy for Mitigating Impacts on Environmental Values (Environmental Mitigation Policy)" (13 May 2014) at 2, online (pdf): Government of British Columbia <https://gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/environmental-mitigation-policy/em_policy_may13_2014.pdf>.

impacts on biodiversity.³⁵ The Business and Biodiversity Offsets Programme³⁶ outlines the mitigation hierarchy as follows:

1. *Avoidance: measures taken to avoid creating impacts from the outset [...] in order to completely avoid impacts on [...] biodiversity.*
2. *Minimisation: measures taken to reduce the duration, intensity and/or extent of impacts (including direct, indirect and cumulative impacts, as appropriate) that cannot be completely avoided, as far as is practically feasible.*
3. *Rehabilitation/Restoration: measures taken to rehabilitate degraded ecosystems or restore cleared ecosystems following exposure to impacts that cannot be completely avoided and/or minimised.*
4. *Offset: measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and/or rehabilitated or restored [...]*³⁷

As confirmed by organizations and experts around the world,³⁸ actions (3) and (4) in the mitigation hierarchy are largely consistent with widely accepted understandings of ecological compensation. Therefore, compensation can be understood to encompass, at minimum, restoration work and measures taken to compensate for “residual significant, adverse impacts.”

The Centre for Environmental and Climate Science defines compensation measures as “usually consist[ing] of restoring or establishing, and thereafter managing natural values...[and are] the last step in the so-called mitigation hierarchy, which requires that land exploiters avoid, minimize or restore biodiversity on site before considering compensation.”³⁹ This suggests that effective compensation requires active involvement. As opposed to passively monitoring or providing public education in the hopes of indirectly protecting the environment, compensation requires the implementation of tangible-on-the-ground measures.

The conclusion that compensation is an active process is supported by the mitigation hierarchy, expert-supported definitions, and BC Hydro’s water licence conditions:

- The mitigation hierarchy begins with avoidance and moves towards compensation, with each step requiring greater investment, management, and direct involvement.

³⁵ See e.g. William NS Arlidge et al, “A Global Mitigation Hierarchy for Nature Conservation” (2018) 68:5 BioScience 336; “Standard on Biodiversity Offsets” (2012), online (pdf): *Business and Biodiversity Offsets Programme* <https://forest-trends.org/wp-content/uploads/imported/BBOP_Standard_on_Biodiversity_Offsets_1_Feb_2013.pdf>; “Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources” (1 January 2012), online (pdf): *International Finance Corporation* <https://ifc.org/wps/wcm/connect/3baf2a6a-2bc5-4174-96c5-eec8085c455f/PS6_English_2012.pdf?MOD=AJPERES&CVID=jxNbLC0>.

³⁶ The Business and Biodiversity Offsets Programme (BBOP) was established by Forest Trends as a collaborative effort between companies, financial institutions, governments, and civil society organizations to develop best practices for achieving a “no net loss” or a net gain of biodiversity. At its peak, the BBOP included 130 leading organizations and individuals from around the world. See “Business and Biodiversity Offsets Programme” (2021), online: *Forest Trends* <<https://forest-trends.org/bbop/>>.

³⁷ William NS Arlidge et al, “A Global Mitigation Hierarchy for Nature Conservation” (2018) 68:5 BioScience 336; “Standard on Biodiversity Offsets” (2012), online (pdf): *Business and Biodiversity Offsets Programme* <https://forest-trends.org/wp-content/uploads/imported/BBOP_Standard_on_Biodiversity_Offsets_1_Feb_2013.pdf>.

³⁸ See Appendix II: Compensation Definitions for a selection of definitions of ecological compensation sourced from reputable environmental organizations and peer-reviewed journals.

³⁹ Centre for Environmental and Climate Science, “Ecological compensation: Assessing socioeconomic and ecological impacts of ecological compensation” (28 January 2021), online: *Lund University* <<https://cec.lu.se/research/ongoing-research-projects/ecological-compensation>>.

- Definitions of ecological compensation focus on tangible actions, using verbs such as “mitigate,” “enhance,” “restore,” “create,” “establish,” and “manage.”⁴⁰
- BC Hydro’s water licence conditions feature similar verbs, including protect, enhance, and mitigate.⁴¹

Overall, the compensation necessary in this context can best be understood as a combination of restoration, compensation, and offsetting. To compensate for the footprint impacts of its dams, BC Hydro can:

1. Restore habitats and populations;
2. Take measures to compensate for habitat loss and degradation; or
3. Invest in offsetting by restoring, enhancing, and/or protecting species and ecosystems off-site.⁴²

FISH AND WILDLIFE COMPENSATION PROGRAM

In this section, we:

- Provide a brief overview of the FWCP and its current mission and objectives;
- Summarize the results of a 2019 audit of the FWCP; and
- Canvass BC Hydro and the FWCP’s past and present compensation commitments to determine how these organizations understand and portray their compensatory obligations.

Overall, we conclude that the structure of and commitments made by the FWCP support our definition of compensation. This supports the conclusion that BC Hydro and the FWCP also understand their obligations as requiring active restoration, compensation, and offsetting measures.

OVERVIEW

As noted above, BC Hydro originally provided annual funding to the provincial government to support on-the-ground compensation work. Both Harvey Andrusak and Rick Morley take the view that BC Hydro became unhappy with this arrangement due to the lack of credit Hydro received for providing this funding.⁴³ Andrusak clarifies that the compensation funds have “always been a major sticking point,” noting that they are “NOT BC Hydro’s; they are funds required by the Comptroller that BC Hydro MUST pay to compensate for [fish, wildlife, and habitat] losses.”⁴⁴ Despite this, the provincial government agreed to cede control to BC Hydro, creating the FWCP in

⁴⁰ See Appendix II: Compensation Definitions.

⁴¹ See Appendix I: Water Licence Conditions.

⁴² While the permanent flooding and habitat loss caused by the construction of BC Hydro dams means that BC Hydro cannot directly restore all the habitat it has affected, it can compensate for these effects by actively restoring, enhancing, and protecting species and habitat throughout the province.

⁴³ See Appendix VIII: Rick Morley Statement; see also Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF.

⁴⁴ See Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF.

the Peace and Columbia Regions in 1988 and 1993, respectively.⁴⁵ We take the view that this is when compensation efforts began to falter – increasingly failing to truly compensate for fish and wildlife losses.

1. Regions

The FWCP works to compensate for BC Hydro's footprint impacts in three regions of the province.⁴⁶ The FWCP Columbia Region "merged the already existing compensation programs for Arrow, Duncan, Mica, Seven Mile, and Revelstoke facilities, [each of] which have water licence conditions related to fish and wildlife compensation."⁴⁷ The FWCP Peace Region was similarly established "to meet the fish- and wildlife-related conditions of the water licences."⁴⁸

2. Mission & Objectives

The *FWCP Governance Manual* defines its Mission, Vision and Objectives:

Mission:

"The Fish and Wildlife Compensation Program **compensates** for the impacts to fish, wildlife and their supporting habitats affected by BC Hydro owned and operated generation facilities."⁴⁹
[emphasis added]

Vision:

"Thriving fish and wildlife populations in watersheds that are functioning and sustainable."⁵⁰

Strategic Objectives:

1. Conservation
 - a) Maintain or improve the status of species or ecosystems of concern.
 - b) Maintain or improve the integrity and productivity of ecosystems and habitats.
This addresses the concept of ecosystem integrity; resiliency; and the functional elements of ecosystems, including efforts to optimize productive capacity.
2. Sustainable Use

⁴⁵ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 3, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁴⁶ In this Coastal Region, this work is voluntary. See "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 1, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁴⁷ These conditions are set out in Appendix I: Water Licence Conditions. See "Columbia Region: Overview & Action Plans" (21 August 2019) at 6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>.

⁴⁸ These conditions are set out in Appendix I: Water Licence Conditions. See "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 3, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁴⁹ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 7-8, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵⁰ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 7-8, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

3. Community Engagement⁵¹

3. Current Governance Structure

As it currently exists, the FWCP is governed by a five-party partnership between BC Hydro, the BC Government, Fisheries and Oceans Canada (DFO), First Nations, and public stakeholders.⁵² While BC Hydro's original compensatory obligations remain enshrined in the water licences, these conditions have been extended to cover all existing BC Hydro facilities. Additionally, all previous administrative agreements have been replaced by the Governance Manual, which operates in conjunction with the FWCP Basin and Action Plans to guide program implementation.⁵³

Decision making within the FWCP operates at a number of levels:

- Policy Committee
 - Comprised of BC Hydro and federal and provincial regulators, works at the provincial level to set the FWCP's overall policy direction and strategic framework⁵⁴
- Regional Board
 - Makes decisions on strategic priorities, reviews submitted project proposals, and approves for funding those projects that align with the FWCP's provincial and regional policies, principles, and strategic priorities⁵⁵
- Fish & Wildlife Technical Committees
 - Supports Regional Board by providing an objective technical, review, evaluation, and ranking of submitted project proposals within their respective areas of expertise⁵⁶
- First Nations Working Group (Peace Region only)
 - Supports strategic development, provides advice on program implementation, and "ensures that decision-making incorporates local knowledge, First Nations

⁵¹ Objective (2) focuses on maintaining or improving opportunities for sustainable use, highlighting the FWCP's "role in restoring or enhancing the abundance of priority species." Objective (3) focuses on building and maintaining relationships with stakeholders and Indigenous communities. Arguably, Objectives (2) and (3) are tangential benefits supporting and supported by compensation work. "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 8-10, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵² "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 8-10, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵³ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 8-10, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵⁴ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 11-12, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵⁵ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 12, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵⁶ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 13, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

traditional knowledge, and cultural and heritage values important to First Nations”⁵⁷

- Program Manager⁵⁸
 - Supports Regional Board⁵⁹

All funding decisions are informed by the input of the Technical Committees and the First Nations Working Group in the Peace Region, but are ultimately left to the discretion of the Regional Board members.⁶⁰ Within their range of discretion, Board members must consider the FWCP’s project investment criteria and action types.

To assist Board members in determining whether to fund projects or not, the FWCP has set out a list of project investment criteria, highlighting those actions which fall within and outside of the FWCP’s mandate.⁶¹ Key FWCP responsibilities on this list include:

- “Fund[ing] actions to create, restore, or otherwise improve the function of ecosystems that have been impacted by BC Hydro activities;”
- “Fund[ing] actions to create, restore, or otherwise improve the function of alternate ecosystems that provide a better opportunity for investment;” and
- “Fund[ing] monitoring programs designed to measure the effectiveness of FWCP funded habitat and species actions.”⁶²

The FWCP is clear that it does not fund a number of actions, including:

- “...core activities of government or non-government agencies or programs;”
- “...enforcement and compliance activities;” and
- “...programs designed exclusively to address government harvest objectives.”⁶³

Informed by the enumerated project investment criteria,⁶⁴ the FWCP funds five types of actions:

1. Research & Information Acquisition
 - “These actions will collect information necessary to evaluate, review, and implement subsequent conservation, restoration, and enhancement actions.

⁵⁷ “Fish and Wildlife Compensation Program – Governance Manual” (1 February 2018) at 12-13, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁵⁸ This position has long remained a source of tension between BC Hydro and the BCWF as the Program Managers are located within BC Hydro offices, suggesting that their first accountability is to BC Hydro. See Appendix XI: 2015 Letter to BC Hydro.

⁵⁹ “Fish and Wildlife Compensation Program – Governance Manual” (1 February 2018) at 13, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁶⁰ See Appendix VIII: Rick Morley Statement.

⁶¹ See Appendix III: Project Investment Criteria.

⁶² “Columbia Region: Overview & Action Plans” (21 August 2019) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>; “Peace Region: Overview & Action Plans” (11 August 2020) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Overview-Aug-11-2020.pdf>>.

⁶³ “Columbia Region: Overview & Action Plans” (21 August 2019) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>; “Peace Region: Overview & Action Plans” (11 August 2020) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Overview-Aug-11-2020.pdf>>.

⁶⁴ See Appendix III: Project Investment Criteria.

Examples include inventory, a limiting factor assessment and other activities to address data gaps and information needs to complete other actions.”

2. Habitat-Based

- “These actions will conserve, restore, and enhance habitats. Examples include habitat creation, restoration, and enhancement; enhancing habitat connectivity; and invasive species prevention.”

3. Monitoring & Evaluation

- “These actions will monitor and evaluate projects supported by the FWCP to understand the effectiveness of habitat- or species-based actions.”

4. Land Securement

- “These actions will contribute to the establishment of easements or covenants, or the purchase of private land for conservation purposes.”

5. Species-Based

- “These actions will alleviate limiting factors for a species. Examples include inventory, restoration planning, captive breeding/rearing, and reintroductions.”⁶⁵

While the investment criteria and action types could arguably fit under our working definition of “compensation,” the project approvals process has been subject to numerous critiques. Harvey Andrusak argues that “the government... [is] guilty in allowing BC Hydro to control the business of the Board. These people are too busy to pay attention and simply defer to what BC Hydro wants. The coyote continues to be in charge of the chicken [coop].”⁶⁶ Eight FWCP staff or Board, Committee, or Working Group members interviewed for a 2019 independent audit noted that “the scoring process is subjective, and it is not clear why certain projects are approved while others are not.”⁶⁷

Sharing his perspective from his time as an FWCP Board Member, Rick Morley notes that the Columbia Regional Board often spent time arguing over whether projects met the FWCP’s terms of reference. He highlights that projects that did not meet the FWCP’s parameters would often get approved by simple “majority rule” votes. He notes that FWCP moved away from consensus decisions to “majority rules” in about 2016, when the co-chair from BC Hydro decided to take a vote at a board meeting because the board could not reach consensus.⁶⁸

4. 2019 Independent Audit

In 2019, Ference & Company conducted an independent evaluation and financial audit of the FWCP, assessing achievement of outcomes, program design and delivery, and financial outcomes. Using documents, project and financial data, and, most significantly, interviews with FWCP staff, members of the FWCP Regional Boards, Technical Committees, First Nations Working Group, and

⁶⁵ “Columbia Region: Overview & Action Plans” (21 August 2019) at 11, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>; “Peace Region: Overview & Action Plans” (11 August 2020) at 15, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Overview-Aug-11-2020.pdf>>.

⁶⁶ See Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF.

⁶⁷ Ference & Company, “Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report” (26 June 2019) at 23, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁶⁸ See Appendix VIII: Rick Morley Statement. Morley elaborated as above in personal communication, March 17, 2022.

Policy Committee, the auditors concluded that, overall, the FWCP has made progress towards achieving its strategic objectives and has been cost-effective in doing so.⁶⁹

However, while not reflected in the auditors' ultimate recommendations,⁷⁰ a number of interviewees expressed strong concerns about the FWCP, sharing that:

- There are significant challenges limiting understanding of the FWCP's impacts and effectiveness;⁷¹
- "Some actions do not have a clear and direct link to FWCP objectives;"⁷²
- The current level of annual funding is insufficient to allow the FWCP to effectively compensate for the full scope of footprint impacts;⁷³
- Progress towards compensation may have been constrained because the FWCP has funded projects and studies that lack a clear connection to footprint impacts;⁷⁴ and
- The FWCP "tends to fund research and studies as opposed to 'on-the-ground' restoration projects."⁷⁵

Note that Rick Morley has stated that, while he and the BCWF met with the auditor, the final report's recommendations were made "as if [they] hadn't talked to [us]." Mr. Morley suggests that the auditor received poor instructions, and blames the Water Comptroller who should be overseeing BC Hydro's compensation work.⁷⁶

PAST AND PRESENT COMPENSATION COMMITMENTS

As argued above, our working definition of "compensation," as developed using the mitigation hierarchy, the work of experts and environmental organizations, and BC Hydro's water licence conditions, necessitates active management, restoration and real-world habitat

⁶⁹ Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁷⁰ See Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019) at 36-38, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁷¹ Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019) at 35, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁷² Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019) at 36, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁷³ Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019) at p iii. Also see pp. 4, 7, 37, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁷⁴ Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019) at 4-5, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁷⁵ Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019) at 7, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

⁷⁶ See Appendix VIII: Rick Morley Statement.

offsetting/replacement. This conclusion is further supported by BC Hydro and the FWCP's own words regarding their compensatory responsibilities.⁷⁷

BC Hydro describes the FWCP as a program which "compensates for the impacts to fish, wildlife and their supporting habitats affected by BC Hydro owned and operated generation facilities."⁷⁸ In its Governance Manual, the FWCP describes its mandate as taking "actions to restore, enhance, and conserve priority species and their habitats."⁷⁹

Overall, the commitments made throughout the FWCP's governing documents and on the BC Hydro website use similar verbs to the cited definitions and water licence conditions, including "create," "restore," "improve," "conserve," "enhance," "compensate," "address losses to," and "maintain." Of particular importance is the program description contained in the 1992 MOU between BC Hydro and the BC Government (the precursor to the FWCP), which notes that, while "research, planning, monitoring, and evaluation will be required to achieve [compensation]...in all cases [they] must be clearly related to the achievement of overall program objectives."⁸⁰ **These public commitments further reinforce our conclusion that the compensation required by BC Hydro's water licences necessitates active species or habitat management, enhancement, restoration, or offsetting measures.**

A REVIEW OF FISH AND WILDLIFE COMPENSATION PROGRAM-FUNDED PROJECTS

METHODOLOGY

The above assessment of FWCP commitments and program objectives provides a detailed picture of the type of compensation work required by BC Hydro's water licences. The BCWF argues that, in the FWCP Board's discretionary decision making, the FWCP has strayed from its mandate as a "Fish and Wildlife Compensation Program." The FWCP is too often funding work that is not truly "compensating" for the harm done by BC Hydro facilities.

Our position is further supported by interviewees' statements during the 2019 independent audit of the FWCP. These suggest that under the current system BC Hydro is – at least in part – failing to live up to its legal and moral obligation to compensate for the ecological harm it has done.

⁷⁷ See Appendix IV: Past & Present Compensation Commitments for a comprehensive overview of BC Hydro and the FWCP's commitments to undertaking compensation work.

⁷⁸ "Fish & Wildlife Compensation Program" (2021), online: *BC Hydro* <https://bchydro.com/toolbar/about/sustainability/environmental_responsibility/compensation_programs.html>.

⁷⁹ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 1, 8, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

⁸⁰ See Appendix VII: 1992 MOU between BC Hydro and BC Ministry of the Environment.

To substantiate these submissions, we conducted a review of FWCP projects funded between 2014 (FY15) and 2022. This review was based on publicly available project lists and supported by in-depth project reports where necessary. Based on the cited definitions of ecological compensation and FWCP and BC Hydro commitments, “compensation” for the purposes of this project review was defined as:

Active species or habitat management, enhancement, restoration, or offsetting measures.

One common determining factor in categorizing projects was whether projects had, or offered the possibility of, on-the-ground impacts. (To truly “compensate” for the real-world damage of dams, compensation must have real-world results that would not otherwise occur.) In practice, this excluded monitoring, inventory, and research projects if they failed to explicitly tie their work to future compensation work, planning, or outcome assessments. In addition, this excluded invasive species management projects. While such projects may be environmentally worthy endeavours with an active component, they cannot be considered to be compensation for the FWCP’s purposes for three reasons:

1. Invasive species do not fit neatly within BC Hydro’s articulation of “footprint impacts,” as they are not necessarily a result of permanent habitat elimination or degradation.⁸¹
2. Funding invasive species management operates in practice to subsidize a pre-existing key responsibility of the provincial government.⁸²
3. Finally, in several action plans, the FWCP itself explicitly lists invasive species as a “non-hydro” impact,⁸³ suggesting that BC Hydro did not cause these effects and should not be required to compensate for them. Scarce Hydro compensation program funds should address Hydro impacts, and not subsidize other government tasks.

⁸¹ See e.g. “Invasive Species” (2021), online: *Canadian Council on Invasive Species* <<https://canadainvasives.ca/invasive-species/>>.

⁸² See e.g. *Weed Control Act*, RSBC 1996, c 487; BC Reg 66/85, Schedule A; BC Reg 94/2009; see also generally “Invasive species programs get new funding boost” (28 January 2021), online: *Ministry of Forests, Lands, Natural Resource Operations and Rural Development* <<https://news.gov.bc.ca/releases/2021FLNR00005-000154>>.

⁸³ See e.g. “Columbia Region: Reservoirs & Large Lakes Action Plan” (21 August 2019) at 8, online (pdf): *Fish and Wildlife Conservation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Reservoirs-Large-Lakes-Aug-21-2019.pdf>>; “Columbia Region: Rivers & Riparian Areas Action Plan” (21 August 2019) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Rivers-Riparian-Areas-Aug-21-2019.pdf>>.

With our working definition of “compensation” and the above caveats in mind, we worked to classify FWCP-funded projects into five categories:⁸⁴

1. Compensation
 - Projects which conducted active species or habitat enhancement, restoration, or offsetting work and either had or supported tangible, on-the-ground environmental benefits.⁸⁵
2. Partially
 - Projects which included both compensatory and non-compensatory elements.
3. Monitoring
 - Projects which focused on monitoring, inventory, and/or research work.⁸⁶
4. Definitely Not
 - Projects which involved neither compensation nor monitoring work.⁸⁷
5. Maybe
 - Projects which could not be classified as any of the above project types due to a lack of clarity in publicly available information.⁸⁸

⁸⁴ We chose not to use the FWCP’s action types for this review. While the action types are useful in understanding the kinds of projects that the FWCP funds, they do not assist in conducting a review of FWCP projects for two reasons. First, some projects seem to be mischaracterized through this system. For example, research on and development of a predictive model for huckleberries was classified as a “habitat-based action” as opposed to “research and acquisition.” Second, some multi-year projects are assigned different action types in different years, foreclosing the possibility of broader project review. For example, a project monitoring caribou populations was classified as a species-based action one year and a habitat-based action the next, despite implementing identical action plans. “Columbia Region 2017-2018 Fish & Wildlife Project List” (2017), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F18-May-2-2017.pdf>>; “Peace Region fish and wildlife project list 2020-2021” (2020), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-F21-Peace-Region-May-7-2020.pdf>>; “Peace Region Fish and Wildlife Project List 2021-2022” (2021), online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Peace-Region-F22-April-22-2021.pdf>>.

⁸⁵ Rick Morley has shared that the Columbia Board focused on new projects every spring and rarely revisited earlier projects to assess their value or effectiveness. As project assessment materials either did not exist or were not publicly available and we did not have the same first person participant information for the Peace Region, we made certain concessions for this category. If a funded project focused on planning for future compensation work, it was classified as compensation. While we could not guarantee that project results were studied or assess the rate of successful project continuation, we also recognized the importance of assessing project feasibility and planning projects in advance due to the inherent complexity of compensation work. See Appendix VIII: Rick Morley Statement.

⁸⁶ We offer three reasons for classifying monitoring projects as distinct from compensation projects. First, monitoring is a key responsibility of the provincial government, as will be discussed further on in these submissions. Second, projects classified as “monitoring” were neither directly tied to ongoing nor future compensation work. As BCWF noted in a January 2013 Letter sent to the Minister of Forests, Lands and Natural Resource Operations, the Minister of the Environment, and the Minister of Energy, Mines and Petroleum Resources, “the approach taken to date is to study the environmental impacts of hydroelectric development. While assessments are essential, action and evaluation are now required in many areas across the province.” If this was true in 2013, it stands to reason that action and evaluation would only be more warranted nearly a decade later. Finally, the 1992 MOU between BC Hydro and the Ministry of the Environment explicitly differentiated between monitoring and enhancement projects. See Appendix X: 2013 Letter to Various Ministries.

⁸⁷ See Appendix V for a complete list of projects classified as “definitely not.”

⁸⁸ See Appendix VI for a complete list of projects classified as “maybe.”

COLUMBIA REGION

Since 2014, the FWCP has funded 163 distinct projects in the Columbia Region, for a total of 320 individual initiatives. As an example to clarify this distinction between projects and initiatives, the Arrow Lakes Reservoir Nutrient Restoration Program can be considered one “project;” however, Arrow Lake Reservoir has been supplemented with nutrients each fiscal year for a total of seven individual initiatives. For the purposes of project review, we assessed individual initiatives because project work often varied from year-to-year, impacting whether a broader project could consistently be considered to be true compensation work.

Table 1: Results of review of projects funded by the FWCP between 2014 and 2022 in the Columbia Region.

	Total	Compensation	Maybe	Partially	Monitoring	Definitely Not
2014-2022						
Initiatives	320	149	5	39	88	39
Funding (\$)	38,400,362	26,090,525	174,086	6,976,115	3,999,360	1,160,276
% Annual Funding	100	67.94	0.45	18.17	10.42	3.02
2021-2022						
Initiatives	40	19	1	7	6	7
Funding (\$)	5,287,702	3,566,063	111,088	1,034,021	325,053	251,477
% Annual Funding	100	67.44	2.10	19.56	6.15	4.75
2020-2021						
Initiatives	43	16	1	6	12	8
Funding (\$)	5,536,971	3,737,584	23,928	933,527	610,032	231,900
% Annual Funding	100	67.50	0.43	16.86	11.02	4.19
2019-2020						
Initiatives	38	20	0	5	9	4
Funding (\$)	5,750,243	4,070,922	0	1,007,077	536,934	135,310
% Annual Funding	100	70.80	0	17.51	9.34	2.35

2018-2019						
Initiatives	51	21	0	7	17	6
Funding (\$)	5,784,975	3,860,360	0	1,013,771	724,722	186,122
% Annual Funding	100	66.73	0	17.52	12.53	3.22
2017-2018						
Initiatives	46	22	1	5	14	4
Funding (\$)	5,388,692	3,663,320	19,800	962,477	653,505	89,590
% Annual Funding	100	67.98	0.37	17.86	12.13	1.66
2016-2017						
Initiatives	54	32	1	4	12	5
Funding (\$)	5,803,522	4,038,156	4,939	1,030,351	611,047	119,029
% Annual Funding	100	69.58	0.09	17.75	10.53	2.05
2015-2016 – DATA NOT AVAILABLE						
Initiatives	-	-	-	-	-	-
Funding	-	-	-	-	-	-
% Annual Funding	-	-	-	-	-	-
2014-2015						
Initiatives	48	19	1	5	18	5
Funding (\$)	4,848,257	3,154,120	14,331	994,891	538,067	146,848
% Annual Funding	100	65.06	0.29	20.52	11.10	3.03

The Columbia Region has experienced significant successes that demonstrate the important role of true “compensation” work. For example, the Kootenay Lake and Arrow Lakes Reservoir Nutrient Restoration Programs began in 1992 and 1999, respectively, and have successfully increased

ecosystem productivity while simultaneously increasing kokanee biomass by 300%.⁸⁹ FWCP projects in the Columbia Region have “improved 455 hectares of upland and dryland habitats, added 455 wildlife trees to ecosystems, [and] restored 2,200 hectares of degraded habitats.”⁹⁰ The FWCP Columbia Region has also directly acquired nearly 7,000 hectares of land for long-term protection.⁹¹

However, the FWCP Columbia Region has also spent a significant proportion of their annual budget on monitoring, inventory, and research work that is neither directly connected to ongoing nor future *compensation* work. In addition to monitoring projects, the FWCP Columbia Region has funded a number of projects which can neither be classified as monitoring nor compensation work. Six particularly egregious examples are:⁹²

1. Grizzly Bear Coexistence Solutions
 - Focused on promoting coexistence between grizzly bears and humans
 - Funds a core activity of the provincial government by providing a service akin to the Conservation Officer Service;⁹³ this is contrary to the project investment criteria
2. Lardeau River Juvenile Fish Habitat Drone-Mapping
 - Focused on piloting methods for surveying rivers with drones to map juvenile salmon habitat
3. Meadow Creek Bear Education and Management Project
 - Focused on modelling human-bear interactions
 - Funds a core activity of the provincial government by providing a service akin to those routinely provided by government;⁹⁴ this is contrary to the project investment criteria
4. Predicting Grizzly Bear Foods: Huckleberries in the Columbia Basin
 - Focused on developing a model to predict the presence of berries
5. Safe Passages for Wildlife in the Southern Canadian Rockies
 - Focused on mitigating wildlife-vehicle collisions through infrastructural investments

⁸⁹ “Columbia Region: Reservoirs & Large Lakes Action Plan” (21 August 2019) at 2, online (pdf): *Fish and Wildlife Conservation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Reservoirs-Large-Lakes-Aug-21-2019.pdf>>.

⁹⁰ “Columbia Region: Upland & Dryland Action Plan” (21 August 2019) at 5, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Upland-Dryland-Aug-21-2019.pdf>>.

⁹¹ “Columbia Region: Wetlands & Riparian Areas Action Plan” (12 August 2021) at 11, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/01/Action-Plan-Columbia-Region-Wetlands-Riparian-Areas-Aug-12-2021.pdf>>.

⁹² See Appendix V for more fulsome project descriptions; see also generally “Project Lists” (2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/projectlists/>>.

⁹³ “About the Conservation Officer Service” (2021), online: *Government of British Columbia* <<https://gov.bc.ca/gov/content/environment/natural-resource-stewardship/natural-resource-law-enforcement/conservation-officer-service/about-the-cos>> [COS]; see also generally *Wildlife Act*, RSBC 1996, c 488.

⁹⁴ “About the Conservation Officer Service” (2021), online: *Government of British Columbia* <<https://gov.bc.ca/gov/content/environment/natural-resource-stewardship/natural-resource-law-enforcement/conservation-officer-service/about-the-cos>> [COS]; see also generally *Wildlife Act*, RSBC 1996, c 488.

- Funds a core activity of the provincial government by improving transportation networks;⁹⁵ this is contrary to the project investment criteria
6. Wolverine Harvest Sustainability in the Kootenay Region
- Focused on supporting BC resource management decisions
 - Funds a program designed to address government harvest objectives; this is contrary to the project investment criteria

PEACE REGION

Since 2014, the FWCP has funded 100 distinct projects in the Peace Region, for a total of 188 individual initiatives. As an example to clarify this distinction, Enhancing Caribou Survival in the Klinse-Za/Scott East Herd Area is classified as one “project;” however, it has been funded over multiple years for a total of five individual initiatives. For the purposes of project review, we assessed individual initiatives as project work often varied from year-to-year, impacting whether a broader project could consistently be considered to be true compensation work.

Table 2: Results of review of projects funded by the FWCP between 2014 and 2022 in the Peace Region.

	Total	Compensation	Partially	Monitoring	Definitely Not
2014-2022					
Initiatives	188	44	9	111	24
Funding (\$)	10,670,537	2,775,570	463,438	6,916,628	514,901
% Annual Funding	100	26.01	4.34	64.82	4.83
2021-2022					
Initiatives	25	9	0	14	2
Funding (\$)	1,337,169	471,435	0	823,540	42,194
% Annual Funding	100	35.26	0	61.59	3.15
2020-2021					
Initiatives	28	4	3	17	4
Funding (\$)	1,499,625	208,222	244,228	952,854	94,321

⁹⁵ “Ministry of Transportation and Infrastructure” (2021), online: *Government of British Columbia* <<https://gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/transportation-and-infrastructure/>>.

% Annual Funding	100	13.88	16.29	63.54	6.29
2019-2020					
Initiatives	26	4	3	16	3
Funding (\$)	1,527,534	181,093	169,910	1,110,001	66,530
% Annual Funding	100	11.85	11.12	72.67	4.36
2018-2019					
Initiatives	30	6	1	20	3
Funding (\$)	2,117,241	268,481	39,300	1,706,457	103,003
% Annual Funding	100	12.68	1.86	80.60	4.86
2017-2018					
Initiatives	26	7	1	15	3
Funding (\$)	2,183,573	890,544	5,000	1,242,789	45,240
% Annual Funding	100	40.78	0.23	56.92	2.07
2016-2017					
Initiatives	26	7	0	16	3
Funding (\$)	1,008,237	389,618	0	541,075	77,544
% Annual Funding	100	38.64	0	53.67	7.69
2015-2016					
Initiatives	21	5	1	11	4
Funding	753,272	172,564	5,000	504,974	70,734
% Annual Funding	100	22.91	0.66	67.04	9.39

2014-2015					
Initiatives	6	2	0	2	2
Funding (\$)	243,886	193,613	0	34,938	15,335
% Annual Funding	100	79.39	0	14.32	6.29

To date, there has yet to be a comprehensive assessment of FWCP's successes in the Peace Region.⁹⁶ However, the FWCP Peace Region seems to have strayed even farther from their compensation mandate than their Columbia Region counterparts, allocating, on average, 64% of their annual budget to non-compensatory projects. In 2018-2019, the FWCP Peace Region allocated a staggering 85.46% of its annual budget to non-compensatory projects. While the Peace Region has funded a number of projects exclusively addressing invasive species management, the following six projects offer particularly egregious examples of non-compensatory work funded by the FWCP:⁹⁷

1. Best Management Practices Workshops for Herpetofauna
 - Focused on developing an outreach program to ensure industry compliance with management goals
 - Assists in ensuring compliance with government regulations; this should be considered an enforcement/compliance activity and, as a result, is clearly contrary to the project investment criteria
2. Colloquium Presentation Series
 - Focused on offering networking events and research presentations
3. Fisher Habitat Conservation: Extension and Field Trials
 - Focused on training forest industry professionals to conserve fisher habitat
 - Assists in ensuring compliance with government regulations; this should be considered an enforcement/compliance activity and, as a result, is contrary to the project investment criteria
4. Human-Bear Conflict Resolution
 - Focused on reducing attractants for bears in communities, and is a core government responsibility
5. Mitigating Wildlife Migration Barriers in the Peace Basin
 - Focused on reducing wildlife-vehicle collisions by recommending cost-effective solutions
 - Funds a core activity of the provincial government by improving transportation networks;⁹⁸ this is contrary to the project investment criteria

⁹⁶ Unlike the Columbia Region, the FWCP's successes in the Peace Region are not outlined in FWCP Action Plans.

⁹⁷ See generally "Project Lists" (2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/projectlists/>>.

⁹⁸ "Ministry of Transportation and Infrastructure" (2021), online: *Government of British Columbia* <<https://gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/transportation-and-infrastructure>>.

6. Williston School Ecology Program

- Focused on providing environmental education for elementary and secondary school students. As with the above examples, this does not involve “Active species or habitat management, enhancement, restoration, or offsetting measures.”

THE CENTRAL PROBLEM: A FAILURE TO UPHOLD BC HYDRO’S LEGAL OBLIGATIONS

Despite the successes discussed above, the central problem remains that a significant proportion of the annual budget in both the Columbia and Peace Regions is funding projects which fail to compensate for the footprint impacts of BC Hydro dams. This is consistent with the statements provided by the BCWF and Rick Morley – as well as the interviewee contributions to the 2019 independent audit. **This problem is particularly acute in the Peace Region where, in the last six fiscal years, more money has gone to support non-compensatory projects than has gone to support compensatory projects.**

The FWCP is clearly funding important restoration, enhancement, and compensation work. However, between 2014 and 2022, approximately 13% and 70% of its annual budget has been allocated to monitoring or other non-compensatory projects in the Columbia and Peace Regions, respectively. This means that, over the past 8 years, one could argue that more than \$12 million of BC Hydro’s funding has either subsidized key provincial responsibilities or supported non-compensatory work. While many of these projects represent significant and environmentally or socially worthy efforts, they fail to uphold BC Hydro’s legal obligation to actually compensate for the footprint impacts of its dams.

As all of FWCP’s project investment criteria and action types outlined above seemed to fit comfortably under our working definition of compensation, it would seem that the issues arose with the specific discretionary decisions made at the Board level. For example, while inventory and monitoring work can be necessary to support future compensation planning and to evaluate past compensation work, many specific projects funded actually involved multi-year species or habitat monitoring – with no stated connection to future compensation work.

Rick Morley – former Regional Manager of the BC Government Kootenay Regional Fish and Wildlife Program and former co-chair of the FWCP Columbia Region Board – argues that the Board often failed to take a “pragmatic approach,” which resulted in “funding all sorts of ‘if we don’t do it no one will’ projects” – noting that “it was a continual fight to try and focus on compensation.”⁹⁹ Former BCWF President Harvey Andrusak seconds this. When discussing whether promoting coexistence between grizzly bears and rural residents constituted “compensation” work, Andrusak has written:

This is the same issue that we wrestle with in [the Habitat Conservation Trust Foundation] i.e. is this government core business or not? At times, the Government has provided various funds to deal with problem bears... So, is this project any

⁹⁹ See Appendix VIII: Rick Morley Statement.

different? The usual argument goes like this at Board meetings – “Well, it is a core government responsibility but if ‘we’ don’t fund it then the project is unlikely to be funded.” You end up scanning all the other proposals and conclude this is a better proposal than most others so let’s fund it. And away we go down the slippery slope of accepting the government off-loading. One can rationalize this is a compensation project due to displacement [of bears] from flooding and so can many other FWCP projects.”¹⁰⁰

INADEQUATE COMPENSATION

During the 2019 audit, numerous people with most intimate knowledge of FWCP highlighted in their interviews that current funding levels inherently limit the positive impacts that the FWCP can have. “Many interviewees indicated that the scope of footprint impacts cannot be addressed with current funding...” They argued that current funding levels were insufficient to meaningfully compensate for the substantial footprint impacts of BC Hydro dams.¹⁰¹

This critique becomes even more pertinent when we consider that upwards of 10% of the FWCP’s inadequate budget is often allocated to non-compensatory projects. We submit that these findings suggest that the FWCP’s compensatory funding is inadequate in terms of both total dollars amounts and annual allocation – meaning that the public interest in thriving fish, wildlife, and ecosystems is not being served. {See “The Bigger Picture” below.}

SUBSIDIZING GOVERNMENT RESPONSIBILITIES

Despite FWCP’s claim that it does not “fund core activities of government or non-government agencies or programs,”¹⁰² in fact the FWCP subsidizes key government responsibilities in two ways. First, a significant proportion of the FWCP’s annual budget in both the Columbia and Peace Regions is allocated to monitoring, inventory, or research projects. Rick Morley highlights the usual ease of connecting monitoring and inventory to compensation when justifying project approvals, noting that Board members used to argue that knowledge of the state of a population or ecosystem is necessary to support effective compensation.¹⁰³ While this can be true to an extent, many funded projects focused on monitoring, inventory, or research – without connecting this work to ongoing or future compensation in their project descriptions. Two fundamental objections

¹⁰⁰ See Appendix IX: Personal Communications from Harvey Andrusak, former President, BCWF.

¹⁰¹ Ference & Company, “Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report” (26 June 2019) at p iii. Also see pp. 4, 7, 37, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>.

¹⁰² See “Columbia Region: Overview & Action Plans” (21 August 2019) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>; “Peace Region: Overview & Action Plans” (11 August 2020) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Overview-Aug-11-2020.pdf>>.

¹⁰³ See Appendix VIII: Rick Morley Statement.

arise when FWCP approves monitoring projects which fail to link their efforts to broader compensation:

1. These projects directly subsidize government monitoring efforts;¹⁰⁴ and
2. The FWCP notes that BC Hydro Water Use Plan Studies focus on addressing long-term data gaps in the Columbia and Peace Regions.¹⁰⁵
 - As the Water Use Plans are focused on operational impacts, it follows that projects supported under these Plans should be focused on assessing the state of current populations. In contrast, FWCP funds should solely focus on tangible restoration, enhancement, and active management projects.

Second, a number of FWCP-funded projects have, as their sole priority, the management of invasive species. While this is an essential aspect of environmental management, Rick Morley notes that “invasives control is clearly a responsibility of the provincial government, but invasives projects [are] getting approved anyways.”¹⁰⁶ There are two main issues with approving invasives projects:

1. Invasive species management is a key responsibility of the provincial government;¹⁰⁷ and
2. The FWCP expressly highlights in a number of Action Plans that “the threat of introduced and invasive species” is a “non-hydro impact.”¹⁰⁸

Clearly, FWCP funds should not be used to address **non-hydro impacts** as the program was established to fulfill BC Hydro’s obligations to compensate for the footprint impacts of its dams. Such misapplication of FWCP funds arises from the FWCP’s growing inclination to confuse the

¹⁰⁴ The Ministry of Environment and Climate Change Strategy “is responsible for the effective protection, management and conservation of BC’s water, land, air and living resources.” Under subsection 4(2) of the *Ministry of Environment Act*, this includes the following purposes and functions:

[...]

(b) to undertake inventories and to plan for and assist in planning, as required, for the effective management, protection and conservation of all water, land, air, plant life and animal life;

[...]

(d) to set standards for, collect, store, retrieve, analyze and make available environmental data;

(e) to monitor environmental conditions of specific developments and to assess and report to the minister on general environmental conditions in British Columbia;

(f) to undertake, commission and coordinate environmental studies [...]

See “Ministry of Environment and Climate Change Strategy” (2021), online: *Government of British Columbia*

<<https://gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/environment-climate-change>>; *Ministry of Environment Act*, RSBC 1996, c 299, s 4(2).

¹⁰⁵ See generally “Columbia Region: Reservoirs & Large Lakes Action Plan” (21 August 2019) at 9, online (pdf): *Fish and Wildlife Conservation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Reservoirs-Large-Lakes-Aug-21-2019.pdf>>.

¹⁰⁶ See Appendix VIII: Rick Morley Statement.

¹⁰⁷ See e.g. *Weed Control Act*, RSBC 1996, c 487; BC Reg 66/85, Schedule A; BC Reg 94/2009; see also generally “Invasive species programs get new funding boost” (28 January 2021), online: *Ministry of Forests, Lands, Natural Resource Operations and Rural Development* <<https://news.gov.bc.ca/releases/2021FLNR00005-000154>>. Note that sometimes there is also a role for the federal government when cross border invasive species are coming from the US, as with bullfrogs.

¹⁰⁸ See e.g. “Columbia Region: Reservoirs & Large Lakes Action Plan” (21 August 2019) at 8, online (pdf): *Fish and Wildlife Conservation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Reservoirs-Large-Lakes-Aug-21-2019.pdf>>; “Columbia Region: Rivers & Riparian Areas Action Plan” (21 August 2019) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Rivers-Riparian-Areas-Aug-21-2019.pdf>>.

general “conservation” role (that government should carry out), with the FWCP’s special role of compensating for the impacts of dams.¹⁰⁹

THE BIGGER PICTURE: THE AMOUNT OF FUNDING PROVIDED FOR FISH AND WILDLIFE COMPENSATION SHOULD BE ENHANCED BY AN ORDER OF MAGNITUDE

The Columbia River Treaty (CRT) is an international agreement between Canada and the United States which jointly develops, regulates, and manages the Columbia River for the purposes of coordinating flood control and optimizing hydro energy production.¹¹⁰ The CRT is implemented by the Bonneville Power Administration, the US Army Corps of Engineers, and BC Hydro.¹¹¹ While the CRT is currently being renegotiated,¹¹² Canada continues to receive downstream power benefits, which provide BC with approximately \$120 million on an annual basis.¹¹³

Despite these massive benefits that have been directly created by BC Hydro Columbia River dams, BC invests absolutely negligible funds into ecological compensation work to remediate the damage done by the dams – especially when compared to what the US spends to remediate analogous damage done by its downstream dams.

On average, the FWCP Columbia Region spends around \$5.5 million on ecological compensation annually for the 30% of the Columbia River Basin that is in BC. Comparatively, the US Bonneville Power Administration spent \$240 million on direct-funded ecological compensation projects in 2019 alone.¹¹⁴ Application of the Polluter Pays Principle would require that a far large percentage of the massive downstream benefits generated by the Hydro dams should be invested in compensating for the long-term environmental impacts of the dams in BC.

MOVING FORWARD

For more than two decades, the BCWF has raised its concerns about the FWCP with various ministries and BC Hydro. In a January 2013 letter to the Minister of Forests, Lands and Natural

¹⁰⁹ Personal communication with Rick Morley, March 17, 2022.

¹¹⁰ *Treaty between Canada and the United States of America relating to Cooperative Development of the Water Resources of the Columbia River Basin*, 17 January 1961, Can TS 1964 No 9 (entered into force 16 September 1964); “Columbia Region: Overview & Action Plans” (21 August 2019) at 18, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>; “Columbia River Treaty FAQs” (2021), online: *Government of British Columbia* <<https://engage.gov.bc.ca/columbiarivertreaty/faqs/>>.

¹¹¹ “Columbia River Treaty FAQs” (2021), online: *Government of British Columbia* <<https://engage.gov.bc.ca/columbiarivertreaty/faqs/>>.

¹¹² “Columbia River Treaty FAQs” (2021), online: *Government of British Columbia* <<https://engage.gov.bc.ca/columbiarivertreaty/faqs/>>; see also e.g. Bob Keating & Tom Popyk, “Calls to terminate Columbia River Treaty spark concern after 2 years of negotiations,” *CBC News* (12 December 2020), online: <<https://cbc.ca/news/canada/british-columbia/american-calls-kill-columbia-river-treaty-1.5836726>>.

¹¹³ “Columbia River Treaty FAQs” (2021), online: *Government of British Columbia* <<https://engage.gov.bc.ca/columbiarivertreaty/faqs/>>.

¹¹⁴ “2019 Columbia River Basin Fish and Wildlife Program Costs Report” (13 May 2020) at 4, online (pdf): *Northwest Power and Conservation Council* <<https://nwcouncil.org/sites/default/files/2020-2.pdf>>.

Resource Operations, the Minister of Environment, and the Minister of Energy, Mines and Petroleum Resources, the BCWF highlighted that they have “long expressed...concern and disagreement with the process by which BC Hydro meets its fish and wildlife compensation requirements.” Significantly, BCWF argued that they do “not have evidence that BC Hydro can meet its water licence obligations nor [do they have] any certainty that [the] government is willing to address the environmental impacts of past hydroelectric developments.”¹¹⁵

Despite the BCWF’s lengthy campaign, the issues with the FWCP have persisted. As Rick Morley summarizes, “objective ecological decisions aren’t being made because of [the FWCP’s] structure. The Auditor General needs to investigate to see if the public interest is being served.”¹¹⁶

MORE ON THE AUDITOR GENERAL’S LEGAL AUTHORITY TO INVESTIGATE

By failing to adequately compensate for lost and degraded public natural resources, BC Hydro is failing to act in the public interest. You and your predecessors have previously recognized the economic and other values associated with public resources, and the importance of Auditor General review to ensure that government and Crown corporations properly conserve, manage, and protect public natural resources.

We submit that BC Hydro and the FWCP are failing to effectively uphold BC Hydro’s legal and moral obligations to adequately compensate for Hydro dams’ impacts on fish, wildlife, and habitat in the Columbia and Peace Regions. The Water Comptroller’s Office lack of oversight of Hydro’s compliance with water licence conditions likely also plays a role in this failure of BC Hydro to adequately compensate for impacts, and should also be investigated.

On the face of it, there appears to be a failure of several government organizations to act “economically, efficiently, and effectively” as per s. 11(8)(b) of the AGA – and that provision authorizes you to report on the matter. You have the mandate, pursuant to section 13 of the AGA, to act in the public interest and are broadly empowered to make reports at any time to the Legislative Assembly, pursuant to section 12 of the Act.

BCWF RECOMMENDATIONS

Throughout their decades of active engagement on this issue, the BCWF has offered three potential solutions to this accountability issue.

First, the BCWF suggests that the reason that the FWCP has failed to successfully uphold BC Hydro’s compensatory obligations is because BC Hydro is in control of the funds. Therefore, one option is to revert to the previous funding scheme wherein BC Hydro simply provided the Ministry of Environment with annual funding to conduct on-the-ground compensation work.

Second, the BCWF suggests that the FWCP could be integrated with the Habitat Conservation Trust Foundation (HCTF), a non-profit charitable foundation which acts as a trustee of the Habitat

¹¹⁵ See Appendix X: 2013 Letter to Various Ministries.

¹¹⁶ See Appendix VIII: Rick Morley Statement.

Conservation Trust, funding conservation projects across the province.¹¹⁷ In an internal information note, the BCWF highlights that:

HCTF is the logical third party to hold the funds given its highly successful track record in the field of conservation and close working relationship with BC Hydro and the Ministries. By moving the funds to HCTF there is certainty that these funds will remain intact and not subject to future government or BC Hydro budgetary reductions. HCTF is a creation of the users of the fish and wildlife resources and is seen by all to be an independent, impartial agency.

[...]

BCWF believes that the funds should [be] lodged in a separate envelope within HCTF to ensure long term security, stability and impartiality in project reviews and approvals. The precedent for establishing third party administration of compensation funds by HCTF was established in the early 1990s with Teck Ltd. for their Highland Valley property, and has functioned successfully ever since. More recently the government itself has moved project funds into HCTF for purposes of administration.¹¹⁸

Finally, the BCWF has argued for the establishment of “an independent third party agency...to conduct administration and annual reporting of the program funding provided by BC Hydro.”¹¹⁹ Reasonably, BCWF has “long taken the view that the party responsible for impacting fish and wildlife habitat should be held responsible for mitigating, compensation or offsetting them,” and that “the agency responsible for the impacts should not be in control of the compensation programs established to restore impacted fish and wildlife and their habitats, due to the inherent conflict of interest between corporate objectives and these responsibilities.”¹²⁰

While each of the above suggested options requires in-depth examination and public consultation, they offer a glimpse of what better ecological compensation in BC could look like, in future.

CONCLUSION

In conclusion, we urge you to undertake an investigation of BC Hydro and the FWCP’s apparent failure to compensate for the footprint impacts of BC Hydro dams. We request that you undertake this audit and examination pursuant to sections 11, 12, and 13 of the *Auditor General Act*.

¹¹⁷ “About” (2021), online: *Habitat Conservation Trust Foundation* <<https://hctf.ca/about/>>.

¹¹⁸ See Appendix XIII: BCWF Internal Information Note Excerpt.

¹¹⁹ See Appendix XII: 2017 Letter to Minister of Energy, Mines and Petroleum Resources.

¹²⁰ See Appendix XII: 2017 Letter to Minister of Energy, Mines and Petroleum Resources.

BC Hydro has both a legal and a moral obligation to compensate for the footprint impacts of its dams. These obligations are grounded in:

- The terms and conditions of BC Hydro's water licences;
- Public commitments made by both BC Hydro and the FWCP; and
- Our working definition of compensation, as developed using BC Hydro and FWCP statements, expert- and organization-supported definitions, and BC Hydro's water licences. Under this definition, "compensation involves *Active species or habitat management, enhancement, restoration, or offsetting measures.*"

As highlighted above, the Comptroller of Water Rights has stipulated:

*BC Hydro is in compliance with [the] clause[s] of the licence[s] as long as the Fish and Wildlife Compensation Programme is in place, adequately funded, and fulfilling its needs and obligations.*¹²¹

While the FWCP is currently "in place," we submit that it is neither "adequately funded" nor "fulfilling its needs and obligations."

In terms of funding adequacy, a number of the people most intimately involved with the FWCP have stated that the Program lacks sufficient funding to support true compensation.¹²² As discussed above, the total amount available through FWCP is miniscule – more than an order of magnitude less than dam ecological remediation funding expended annually downstream in the US.

Worse, as demonstrated above, a significant portion of the available Hydro compensation money is not being spent on true compensation work. Over the past seven years alone, it appears that more than \$10,000,000 of FWCP funds may have gone to non-compensatory projects. While such things as ecological monitoring, public education, dealing with problem wildlife, reducing traffic-wildlife interactions, invasive species management and piloting of mapping technology can be important aspects of fish and wildlife management, we submit that these activities are generally the provincial government's core responsibility – unless intimately linked with true *compensation* projects. The FWCP must uphold its mandate and fund tangible, on-the-ground compensation projects.

The BC Hydro dams caused vast damage to habitat and species. In turn, a Fish and Wildlife Compensation Program must enhance, restore, offset or manage species and habitat to make up for that vast damage. The public policy issue is fundamental. When the substantial public benefits of hydropower generation come at a cost to our natural environment, true environmental *compensation* is essential.

¹²¹ "Fish and Wildlife Compensation Program – Governance Manual" (1 February 2018) at 5-6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

¹²² Ference & Company, "Evaluation and Financial Audit of Fish & Wildlife Compensation Program: Final Report" (26 June 2019) at p iii. Also see pp. 4, 7, 37, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/10/Evaluation-and-Financial-Audit-Final-Report-2019.pdf>>. Also see the discussion of the 2019 Independent Audit above.

We request that you undertake this investigation to ensure that BC Hydro is held accountable to compensate for the significant footprint impacts of its dams. As a Crown Corporation, BC Hydro has legal and moral obligations to the people of British Columbia. BC Hydro must be held responsible to adequately compensate for the losses to fish, wildlife and habitat. In the course of your investigation, we request that you also carefully examine the actions of the Fish and Wildlife Compensation Program and the Comptroller of Water Rights, to ensure that the fish and wildlife losses created by BC Hydro are adequately remediated and compensated.

Sincerely,

"Calvin Sandborn"

Calvin Sandborn, QC, Barrister and Solicitor
Environmental Law Centre
csandbor@uvic.ca

"Victoria Kacer"

Victoria Kacer,
Environmental Law Clinic Student

"Edith Barabash"

Edith Barabash,
Environmental Law Centre Articled Student

APPENDIX I: WATER LICENCE CONDITIONS

The licence conditions set out in the following table were accessed using the BC Government's Water Rights Database.¹²³

Table 3: Water licence conditions requiring BC Hydro to compensate for footprint impacts.

Licence	Year & Date of Precedence	Body of Water	Dam/Reservoir	Text of Condition(s)
C027066 ¹²⁴	Licence issued: 1962 Date of precedence: ¹²⁵ June 22, 1961	Columbia River	Hugh Keenleyside Dam/Arrow Lake Reservoir	(n) The licensee ¹²⁶ shall make available an amount not to exceed \$5,000 (five thousand dollars) per annum to the Department of Recreation and Conservation in each of the years 1962 and 1963 to conduct a study and make a report on such remedial measures as may be determined to be necessary for the protection of fisheries and wildlife. (o) The licensee shall undertake and complete such remedial measures for the protection of fisheries and wildlife as the Comptroller may direct following receipt of the aforesaid report from the Department of Recreation and Conservation.
C027067 ¹²⁷	Licence issued: 1962 Date of precedence:	Duncan River	Duncan Dam/Duncan Lake Reservoir	(n) The licensee shall make available an amount not to exceed \$5,000 (five thousand dollars) per annum to the Department of Recreation and Conservation in

¹²³ To ensure continued relevancy, only current water licences were surveyed. This explains the apparent discrepancies between dates of issuance and dates of precedence. "Water Rights Databases" (2021), online: *Government of British Columbia* <<https://gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/water-licences-approvals/water-rights-databases>>.

¹²⁴ "Conditional Water Licence No 27066" (16 April 1962), online: *Government of British Columbia* <<https://j200.gov.bc.ca/pub/ams/Download.aspx?PosseObjectId=89088473>>.

¹²⁵ BC water regulations use a "first in time, first in right" (FITFIR) system of precedence, with the "date of precedence" establishing the order and priority of allocation of water resources during times of scarcity or drought. See *Water Sustainability Act*, SBC 2014, c 15, s 22; see also e.g. "Water Use During Scarcity" (2021), online: *Government of British Columbia* <<https://gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/water-licences-approvals/water-use-during-scarcity>>.

¹²⁶ For all water licences included in this chart, the "licensee" is BC Hydro.

¹²⁷ "Conditional Water Licence No 27067" (16 April 1962), online: *Government of British Columbia* <<https://j200.gov.bc.ca/pub/ams/Download.aspx?PosseObjectId=89088475>>.

	June 26, 1961			<p>each of the years 1962 and 1963 to conduct a study and make a report on such remedial measures as may be determined to be necessary for the protection of fisheries and wildlife.</p> <p>(o) The licensee shall undertake and complete such remedial measures for the protection of fisheries and wildlife as the Comptroller may direct following receipt of the aforesaid report from the Department of Recreation and Conservation.</p>
C027068 ¹²⁸	<p>Licence issued: 1962</p> <p>Date of precedence: June 26, 1961</p>	Columbia River	Mica Dam/Kinbasket Lake Reservoir	<p>(n) The licensee shall make available an amount not to exceed \$5,000 (five thousand dollars) per annum to the Department of Recreation and Conservation in each of the years 1962 and 1963 to conduct a study and make a report on such remedial measures as may be determined to be necessary for the protection of fisheries and wildlife.</p> <p>(o) The licensee shall undertake and complete such remedial measures for the protection of fisheries and wildlife as the Comptroller may direct following receipt of the aforesaid report from the Department of Recreation and Conservation.</p>
C047215 ¹²⁹	<p>Licence issued: 1976</p> <p>Date of precedence: February 16, 1976</p>	Columbia River	Revelstoke Dam/Revelstoke Lake Reservoir	<p>(p) Programmes for the protection, or enhancement, of fish and wildlife habitat and for the mitigation of losses of habitat, and studies related thereto shall be carried out by the Licensee as</p>

¹²⁸ "Conditional Water Licence No 27068" (16 April 1962), online: *Government of British Columbia* <<https://j200.gov.bc.ca/pub/ams/Default.aspx?PossePresentation=PublicDocuments&PosseObjectId=45043495>>.

¹²⁹ "Conditional Water Licence No 047215" (1 December 1976), online: *Government of British Columbia* <<https://j200.gov.bc.ca/pub/ams/Download.aspx?PosseObjectId=89140984>>.

				directed by the Comptroller of Water Rights. ¹³⁰
C123025 ¹³¹	Licence issued: 2008 Date of precedence: January 18, 1974	Peace River	Peace Canyon Dam/Dinosaur Lake Reservoir	(l) Programmes for the protection or enhancement of fisheries and wildlife habitat shall be carried out as directed by the Comptroller of Water Rights after consultation with the licensee and the provincial fisheries and wildlife agencies.
F113790 ¹³²	Licence issued: 1998 Date of precedence: January 7, 1974	Pend d'Oreille River	Seven Mile Dam & Reservoir	(i) Programs for the protection, or enhancement, of fish and wildlife habitat and for the mitigation of losses of habitat shall be carried out as directed by the Comptroller of Water Rights, after consultation with the licensee and the Fish and Wildlife Branches of the Ministry of Environment, Lands and Parks.
F113791 ¹³³	Licence issued: 1998 Date of precedence: January 7, 1974	Pend d'Oreille River	Seven Mile Dam & Reservoir	(l) Programs for the protection, or enhancement, of fish and wildlife habitat and for the mitigation of losses of habitat shall be carried out as directed by the Comptroller of Water Rights, after consultation with the licensee and the Fish and Wildlife Branches of the Ministry of Environment, Lands and Parks.

¹³⁰ This is the licence condition which was included as a result of the public consultations in the 1970s. This is confirmed by the Comptroller in a document entitled *Re: Application for Water Licence by British Columbia Hydro and Power Authority [BC Hydro] to Authorize the Construction of the Revelstoke Dam Project* (File 0330118) dated December 1, 1976. In discussing the events of the public hearings, H.D. DeBeck, the Comptroller of Water Rights at the time, noted that, "[w]ith regard to the effect of the Revelstoke dam on fish and wildlife, the planning for measures to mitigate losses is not far enough advanced to permit the election of the best options nor to permit the assignment of a dollar value to the cost. I have, therefore, included provisions in the licence to retain my decision-making power in this regard." "File: 0330118" (1 December 1976), online: *Government of British Columbia*

<<https://j200.gov.bc.ca/pub/ams/Download.aspx?PosseObjectId=89140984>>.

¹³¹ "Conditional Water Licence No 123025" (4 April 2008), online: *Government of British Columbia*

<<https://j200.gov.bc.ca/pub/ams/Default.aspx?PossePresentation=PublicDocuments&PosseObjectId=44980132>>.

¹³² "Final Water Licence No 113790" (3 December 1998), online: *Government of British Columbia*

<<https://j200.gov.bc.ca/pub/ams/Default.aspx?PossePresentation=PublicDocuments&PosseObjectId=44984719>>.

¹³³ "Final Water Licence No 113791" (3 December 1998), online: *Government of British Columbia*

<<https://j200.gov.bc.ca/pub/ams/Default.aspx?PossePresentation=PublicDocuments&PosseObjectId=44984720>>.

F123021 ¹³⁴	Licence issued: 2008 Date of precedence: February 14, 1962	Peace River	W.A.C. Bennett Dam & Williston Lake Reservoir	(k) Remedial measures for the protection of fisheries and wildlife habitat shall be carried out as directed by the Comptroller of Water Rights after consultation with the licensee and the provincial fisheries and wildlife agencies.
------------------------	---	-------------	---	---

¹³⁴ "Final Water Licence No 123021" (4 April 2008), online: *Government of British Columbia* <<https://j200.gov.bc.ca/pub/ams/Download.aspx?PosseObjectId=89241182>>.

APPENDIX II: COMPENSATION DEFINITIONS

Table 4: Various definitions of ecological compensation selected from reputable environmental organizations and peer-reviewed journals.

Source	Definition
Centre for Environmental and Climate Science ¹³⁵	<p>“Ecological compensation is used to mitigate the impacts of development on biodiversity and ecosystem services and means that exploitation and land-use changes that cause adverse effects on biodiversity and ecosystem values are compensated by providing new values in another area.”</p> <p>“Compensation measures usually consist of restoring or establishing, and thereafter managing natural values...[and are] the last step in the so-called mitigation hierarchy, which requires that land exploiters avoid, minimize or restore biodiversity on site before considering compensation.”¹³⁶</p>
<i>Impact Assessment and Project Appraisal</i>	<p>“Ecological compensation is a positive conservation action that is required to counter-balance ecological values lost in the context of development or resource use...”¹³⁷</p>
Infrastructure & Ecology Network Europe ¹³⁸	<p>“Ecological compensation may be defined as creating, restoring or enhancing nature qualities in order to counterbalance ecological damage caused by infrastructure development.”</p> <p>“Compensatory measures are fundamentally different from the protection or enhancement of natural values.”¹³⁹</p>
<i>International Journal of Environmental Studies</i>	<p>Compensation is “the provision of positive environmental measures to correct, balance or otherwise make up for the loss of environmental resources...”¹⁴⁰</p>

¹³⁵ The Centre for Environmental and Climate Science is hosted at Lund University in Sweden and conducts “cutting-edge and renowned research on the environment and climate.” See “Centre for Environmental and Climate Science (CEC)” (2021), online: *Lund University* <<https://cec.lu.se/home>>.

¹³⁶ Centre for Environmental and Climate Science, “Ecological compensation: Assessing socioeconomic and ecological impacts of ecological compensation” (28 January 2021), online: *Lund University* <<https://cec.lu.se/research/ongoing-research-projects/ecological-compensation>>.

¹³⁷ Marie A Brown et al, “Ecological compensation: an evaluation of regulatory compliance in New Zealand” (2013) 31:1 *Impact Assessment Project Appraisal* 34.

¹³⁸ Infrastructure and Ecology Network Europe is a network of experts on issues of infrastructure and biodiversity. See “IENE Today” (2021), online: *Infrastructure & Ecology Network Europe* <<https://iene.info/iene/iene-today/>>.

¹³⁹ Infrastructure & Ecology Network Europe, “8.1 The concept of ecological compensation” (2003), online (pdf): *Wildlife & Traffic: A European Handbook for Identifying Conflicts and Designing Solutions* <<https://handbookwildlifetraffic.info/ch-8-ecological-compensation/8-1-the-concept-of-ecological-compensation/>>.

¹⁴⁰ Jesper Persson, “Perceptions of environmental compensation in different scientific fields” (2013) 70:4 *Intl J Environ Stud* 611 at 611.

World Wide Fund for Nature (WWF)	<p>"Compensate: measures taken to compensate for any significant residual, adverse impacts that cannot be avoided, reduced and/or restored."</p> <p>"Offset: A type of compensation measure..."¹⁴¹</p>
----------------------------------	---

¹⁴¹ Martha Stevenson, "First Things First: Avoid, Reduce...and only after that-Compensate" (27 April 2020), online: WWF <https://wwf.panda.org/wwf_news/?362819/First-Things-First-Avoid-Reduce--and-only-after-thatCompensate>.

APPENDIX III: PROJECT INVESTMENT CRITERIA

The following responsibilities are set out to inform project funding decision-making processes within the Regional Boards.

Table 5: FWCP project investment criteria¹⁴²

FWCP Does	FWCP Does Not
Fund actions to create, restore, or otherwise improve the function of ecosystems that have been impacted by BC Hydro activities	Fund core activities of government or non-government agencies or programs
Fund actions to create, restore, or otherwise improve the function of alternate ecosystems that provide a better opportunity for investment [i.e. offsets]	Lead the development of species recovery goals
Participate as a team member in species of interest planning	Fund, coordinate, or lead National Recovery Teams for species at risk
Fund specific management actions for species of interest as identified by recovery teams and action/implementation groups	Develop policy related to land or wildlife management
Fund baseline inventory that contributes to the development of habitat or species based actions within Action Plans	Administer government regulations
Fund monitoring programs designed to measure the effectiveness of FWCP funded habitat and species actions	Engage in enforcement and compliance activities, except in relation to cooperatively managed conservation lands
Contribute to all aspects of managing cooperatively managed conservation lands	Fund programs designed exclusively to address government harvest objectives

¹⁴² "Columbia Region: Overview & Action Plans" (21 August 2019) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Overview-Aug-21-2019.pdf>>; "Peace Region: Overview & Action Plans" (11 August 2020) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/08/Action-Plan-Peace-Region-Overview-Aug-11-2020.pdf>>.

APPENDIX IV: PAST & PRESENT COMPENSATION COMMITMENTS

Table 6: Commitments made by BC Hydro and the FWCP with regard to required compensation.

Source	Commitment(s)
1992 MOU (BC Hydro and MELP) ¹⁴³	<p>“Programs will attempt to improve fish and wildlife populations through enhancement of existing habitat. It is acknowledged that research, planning, monitoring, and evaluation will be required to achieve these results, but in all cases must be clearly related to the achievement of overall program objectives.”</p> <p>BC Hydro “holds water licences which, in part, obligate it to undertake programs to address losses to fish, wildlife, and recreation.”</p> <p>“The aim of these [compensation] programs is to...maintain and enhance natural production of fish and wildlife populations, with artificial production as a secondary priority.”¹⁴⁴</p>
BC Hydro Website – Fish & Wildlife Compensation Program	<p>“The FWCP compensates for the impacts to fish, wildlife and their supporting habitats affected by BC Hydro owned and operated generation facilities...”¹⁴⁵</p>
Columbia Region Annual Report (2020-2021)	<p>“FWCP’s Columbia Region was established in 1995 to compensate for fish and wildlife populations affected by construction of BC Hydro dams in Canada’s portion of the Columbia Basin.”¹⁴⁶</p>
Columbia Region Reservoirs & Large Lakes Action Plan	<p>Plan outlines actions “that will conserve, restore, and enhance fish and wildlife species and their reservoir and large lake habitats”¹⁴⁷</p>
FWCP Website	<p>“The Fish & Wildlife Compensation Program is a partnership between BC Hydro, the Province of BC, Fisheries and Oceans Canada, First Nations and public stakeholders to conserve and enhance fish and wildlife in watersheds impacted by BC Hydro dams.”¹⁴⁸</p>
Governance Manual	<p>“Our mission is to compensate for the impacts to fish, wildlife and their supporting habitats affected by BC Hydro owned and operated generation facilities.”</p>

¹⁴³ See Appendix VII: 1992 MOU between BC Hydro and BC Ministry of the Environment.

¹⁴⁴ Appendix VII: 1992 MOU between BC Hydro and BC Ministry of the Environment.

¹⁴⁵ “Fish & Wildlife Compensation Program” (2021), online: *BC Hydro*

<https://bchydro.com/toolbar/about/sustainability/environmental_responsibility/compensation_programs.html>.

¹⁴⁶ “Annual Report Columbia Region 2020-2021” (2021), online (pdf): *Fish & Wildlife Compensation Program*

<<https://fwcp.ca/app/uploads/2021/01/Annual-Report-Columbia-Region-2020-2021-F21.pdf>>.

¹⁴⁷ “Columbia Region: Reservoirs & Large Lakes Action Plan” (21 August 2019) at ii, online (pdf): *Fish and Wildlife Conservation Program* <<https://fwcp.ca/app/uploads/2019/08/Action-Plan-Columbia-Region-Reservoirs-Large-Lakes-Aug-21-2019.pdf>>.

¹⁴⁸ “Our Story” (2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/our-story/>>.

	<p>“The FWCP was established to compensate for impacts to fish, wildlife, and their supporting habitat resulting from the construction of BC Hydro generation facilities.”</p> <p>“BC Hydro has a <i>Water Act</i> obligation¹⁴⁹ to address the conservation and enhancement of fish and wildlife affected by the original footprint development for its hydroelectric facilities in the Peace and Columbia Regions.”</p> <p>The FWCP “takes actions to restore, enhance, and conserve priority species and their habitats.”¹⁵⁰</p>
--	---

¹⁴⁹ Notes that the “FWCP is the agreed-to mechanism to meet conditions of the water licences that authorize the operation of Peace and Columbia facilities...” See “Fish and Wildlife Compensation Program – Governance Manual” (1 February 2018) at 1, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

¹⁵⁰ “Fish and Wildlife Compensation Program – Governance Manual” (1 February 2018) at 1, 8, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2018/01/FWCP-Governance-Manual-2014-Rev-2018-FINAL.pdf>>.

APPENDIX V: PROJECTS CLASSIFIED AS “DEFINITELY NOT”

COLUMBIA REGION

Elk Valley Invasive Plant Management (2020-2021, 2021-2022)

Project IDs: COL-F21-W-3298, COL-F22-W-3481

This multi-year project will provide a multi-stakeholder framework to minimize and contain invasive plant species and maintain biodiversity and ecological function in the upper Elk Valley with an emphasis on areas of high habitat value (such as bighorn sheep habitat and conservation properties). With an effective plan in place, multi-stakeholder groups will work collaboratively to coordinate and implement a management plan designed to prevent, educate, inventory, contain, reduce, and monitor invasive plant species in identified priority areas. This project will benefit bighorn sheep, elk, moose, white-tailed deer, mule deer, and grizzly bears.¹⁵¹

Exploring the History of Fish-Derived Nutrient Supplies in Arrow Lakes Reservoir (2014-2015)

Project ID: N/A

The goal of this project is to research the historical range of sockeye salmon in the Arrow Lakes Reservoir prior to dam construction, the ecological consequences of sockeye salmon extirpation, and the cultural understanding of the resource to First Nations peoples in the region.¹⁵²

Grizzly Bear Coexistence Solutions (2020-2021, 2021-2022)

Project IDs: COL-F21-W-3284, COL-F22-W-3511

This multi-year project will promote coexistence between grizzly bears and rural residents through education, collaboration, and the use of practical tools, such as correctly installed electric fencing. This will help prevent bear conflicts and associated grizzly bear mortalities in the low-elevation linkage habitats that often overlap with agricultural lands. As conflicts are reduced, there will be improved grizzly bear conservation status in the region, including enhanced connectivity between core grizzly bear populations.¹⁵³

Invasive Plant Management and Restoration of Protected Areas (2016-2017, 2018-2019, 2019-2020, 2020-2021)

Project IDs: COL-F17-W-1427, UKE-F17-W-1447, COL-F19-W-2692, UKE-F19-W-2693, COL-F20-W-3101, CL-F21-W-3265

This project, led by the East Kootenay Invasive Species Council, aims to retain functional and sustainable ecosystems in protected areas of the East Kootenay by mitigating the impacts of

¹⁵¹ “Columbia Region Fish and Wildlife Project List 2021-2022” (2021) at 10, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

¹⁵² “FWCP-Columbia 2014-2015 Project Summaries” (2014) at 3, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F15-Project-Summaries-Apr-25-2014.pdf>>.

¹⁵³ “Columbia Region Fish and Wildlife Project List 2021-2022” (2021) at 15, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

invasive species through control and preventative measures. Benefits include controlling the spread from neighbouring invasive species populations, wildlife habitat conservation, long-term cost-savings through collaborative invasive species management action, and the enhancement of degraded areas with desirable plant species.¹⁵⁴

Invasive Plant Management on Bighorn Sheep Winter Ranges (2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022)

Project IDs: UKE-F18-W-2425, UKE-F19-W-2730, COL-F20-W-3041, COL-F21-W-3286, COL-F22-W-3466

This multi-year project will provide a multi-stakeholder framework to minimize and contain invasive plant species and maintain biodiversity and ecological function in the upper Elk Valley. It will have an emphasis on areas of high habitat value (such as bighorn sheep habitat and conservation properties). With an effective plan in place, multi-stakeholder groups will work collaboratively to coordinate and implement a management plan designed to prevent, educate, inventory, contain, reduce, and monitor invasive plant species in identified priority areas.¹⁵⁵

Kootenay Riparian Invasive Plant Removal (2021-2022)

Project ID: COL-F22-W-3507

This multi-year project will support the development and implementation of a multi-year plan for removing invasive yellow flag iris and purple loosestrife along the West Arm of Kootenay Lake and the Kootenay River downstream to the Brilliant Dam. This will improve riparian ecosystem function, protect high-value conservation areas, and increase awareness and long-term stewardship among local residents.¹⁵⁶

Lardeau River Juvenile Fish Habitat Drone-mapping Pilot (2020-2021)

Project ID: COL-F21-F-3292

This project, led by Poisson Consulting Ltd. in partnership with the Selkirk Geospatial Research Centre, will pilot methods for surveying rivers with drones in order to map salmonid juvenile fish habitat. The goal is to develop surveying methods that can be used to accurately map habitat in entire river systems and help refine estimates of juvenile abundance, assess changes in habitat quality through time and space, and direct habitat restoration activities.¹⁵⁷

¹⁵⁴ "Columbia Region fish and wildlife project list 2020-2021" (2020) at 3, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-May-21-2020.pdf>>.

¹⁵⁵ "Columbia Region Fish and Wildlife Project List 2021-2022" (2021) at 7, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

¹⁵⁶ "Columbia Region Fish and Wildlife Project List 2021-2022" (2021) at 14, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

¹⁵⁷ "Columbia Region fish and wildlife project list 2020-2021" (2020) at 2, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-May-21-2020.pdf>>.

Management and Restoration of Invasive Plants in Protected Areas (2014-2015)

Project ID: N/A

The objective of the Management and Restoration of Invasive Plants in Protected Areas (MRIPPA) Program is to mitigate the negative impacts of invasive plants on riparian/wetland, and upland/dryland Crown lands adjacent to FWCP, Conservation, and private lands. This work will help reduce pressure from neighbouring invasive species populations, increase wildlife habitat conservation, and reduce long-term costs from potential future invasive species management actions.¹⁵⁸

Meadow Creek Bear Education and Management (2014-2015)

Project ID: N/A

This is year four of a proposed five-year project [...] to create a model of human/Grizzly Bear coexistence in the Duncan and Lardeau valleys. The goal is to reduce Grizzly Bear conflicts with people (especially in and around Meadow Creek and the Meadow Creek Kokanee Spawning Channel – MCSC) and promote Grizzly Bear survival, while increasing community tolerance of bears. This will allow Grizzly Bears access to Kokanee at the MCSC, movement in riparian and low-elevation habitats in the project area, and travel between the Selkirk and Purcell Mountains.¹⁵⁹

Monitoring White-Tailed Deer in Columbia Mountains (2018-2019, 2019-2020, 2020-2021, 2021-2022)

Project IDs: COL-F19-W-2763, COL-F20-W-3027, COL-F21-W-3312, COL-F22-W-3467

This multi-year project will evaluate factors influencing white-tailed deer populations in the Columbia Mountains to support mountain caribou management decisions in a high-stakes socioeconomic landscape. This project will also collect baseline data to evaluate the efficacy of white-tailed deer reductions via increased hunter harvest. Understanding and monitoring additional limiting factors that may be preventing caribou population growth is critical for effective adaptive management and recovery.¹⁶⁰

Northern Leopard Frog Preservation and American Bullfrog Control (2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022)

Project IDs: COL-F18-W-2442, COL-F19-W-2704, COL-F20-W-3049, COL-F21-W-3258, COL-F22-W-3532

This multi-year project aims to conduct a comprehensive and targeted surveillance and eradication program on American bullfrogs. The intent of this project is to protect the productivity of the wetland ecosystem and habitats required by endangered northern leopard frogs from the highly invasive American bullfrog. Controlling bullfrogs will enhance potential habitat for northern

¹⁵⁸ "FWCP-Columbia 2014-2015 Project Summaries" (2014) at 6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F15-Project-Summaries-Apr-25-2014.pdf>>.

¹⁵⁹ "FWCP-Columbia 2014-2015 Project Summaries" (2014) at 5, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F15-Project-Summaries-Apr-25-2014.pdf>>.

¹⁶⁰ "Columbia Region Fish and Wildlife Project List 2021-2022" (2021) at 9, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

leopard frogs – as well as many other native species throughout the wetlands of the Creston Valley – and support ongoing efforts to ensure their long-term survival.¹⁶¹

Predicting Grizzly Bear Foods (2014-2015, 2016-2017, 2017-2018, 2018-2019)

Project IDs: N/A, COL-F17-W-1330, COL-F18-W-2456, COL-F19-W-2805

This project will expand on a previous project that accurately predicted Grizzly Bears most important regional food source (huckleberries) across most of the Columbia Basin. During 2013-2016, an accurate predictive model was developed for huckleberry patches important to Grizzly Bears in the south Selkirk and Purcell Mountains. This project will expand that model into the East Kootenay and North Columbia, the Central Purcell and Selkirks, and the Valhalla and Granby regions. This project's huckleberry patch model is already being used by resource managers to plan timber harvest and protect important berry patches through access controls. There is a strong demand for this model to be expanded regionally for these same purposes.¹⁶²

Protecting Our Waters from Aquatic Invasive Species (2014-2015, 2016-2017, 2017-2018)

Project IDs: N/A, COL-F17-F-1204, COL-F18-F-2443

This project aims to ensure productive and biologically diverse aquatic ecosystems within the Central/West Kootenay region. This will be achieved through surveying and monitoring for new incursions of highly invasive aquatic invasive species; collaborating with partners to engage in Early Detection and Rapid Response Plans should certain high-priority species be detected; monitoring changes in composition, density, and distribution of existing infestations of aquatic invasive plants and undertaking management activities where feasible; and increasing education and awareness about aquatic invasive species, and providing solutions on how to prevent their introduction and spread.¹⁶³

Safe Passages for Wildlife in the Southern Canadian Rockies (2020-2021, 2021-2022)

Project IDs: COL-F21-W-3313, COL-F22-W-3510

This multi-year project is working to improve wildlife connectivity and human safety along Highway 3 in the southern Canadian Rockies by identifying hotspots for wildlife collisions and crossings that would benefit from highway mitigation. This year [2021-2022], there will be a focus on improving the movement of wildlife under the Alexander Bridge, fencing from Carbon Bridge to Alexander Bridge, and finalizing a concept report and strategic funding plan for the Alexander Michel Overpass.¹⁶⁴

¹⁶¹ "Columbia Region Fish and Wildlife Project List 2021-2022" (2021) at 17, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

¹⁶² "Columbia Region fish and wildlife project list 2018-2019" (2018) at 6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F19-Apr-19-2018.pdf>>.

¹⁶³ "Columbia Region 2017-2018 Fish & Wildlife Project List" (2017) at 2, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F18-May-2-2017.pdf>>.

¹⁶⁴ "Columbia Region Fish and Wildlife Project List 2021-2022" (2021) at 14, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

Wolverine Harvest Sustainability (2016-2017)

Project ID: UKE-F17-W-1417

Wolverines are a species of management focus for the BC Ministry of Forests, Lands and Natural Resource Operations due to uncertainty about sustainability of legal trapping and harvest. This project will gather necessary information to help the BC Ministry make science-based decisions and actions to inform resource management practices.¹⁶⁵

PEACE REGION

Best Management Practices Workshops for Herpetofauna (2017-2018)

Project ID: PEA-F18-W-2334

The government of BC has released multiple best management practice documents for the management of herpetofauna across the Province, including extensive guidance on salvage. However, many in the resource industry are not fully aware of the regulations or how to establish the management practices contained within these practice documents. The goal of this seed project is to develop a proposal for an outreach program, including extension materials, workshop, and presentations to communities within the Peace Region on the management of northern herpetofauna.¹⁶⁶

Colloquium Presentation Series (2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021)

Project IDs: N/A, PEA-F17-F-1426, PEA-F18-W-2294, PEA-F19-W-2623, PEA-F20-W-2952, PEA-F21-W-3173

This project, led by the University of Northern British Columbia, 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. The project will consist of a series of three invited speaker events in the fall, winter, and spring. It will feature researchers from British Columbia or Alberta and a national or international speaker, who will present on topics related to fish and/or wildlife species in the Peace Region.¹⁶⁷

Fisher Habitat Conservation: Extension and Field Trials (2015-2016, 2018-2019, 2019-2020)

Project IDs: N/A, PEA-F19-W-2621, PEA-F20-W-2949

In [...] this multi-year project, work with First Nation[s] and industry partners will continue to complete field trials to determine if efforts to retain Fisher habitat are being effective. The Williston Reservoir impacted available habitat for Fishers in the Upper Peace Drainage and ongoing forest harvesting continues to erode the ability of the landscape to support this priority

¹⁶⁵ "FWCP Columbia Region 2016-17 Fish and Wildlife Project Summary" (2016) at 4, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F17-Apr-18-2016.pdf>>.

¹⁶⁶ "Peace Region 2017-2018 Fish & Wildlife Project List" (2017) at 5, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/04/Project-List-2017-2018-F18-Peace-Region.pdf>>.

¹⁶⁷ "Peace Region fish and wildlife project list 2020-2021" (2020) at 3, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/12/Project-List-F21-Peace-Region-Nov-30-2021.pdf>>.

furbearer. Conservation of important habitats is critical. Using information from Fisher research in the Williston region, this project uses training, tools, and best management practices to help forestry staff retain important Fisher habitats within their operations.¹⁶⁸

Human-Bear Conflict Resolution (2015-2016)

Project ID: N/A

Reduce the number of human-bear conflicts in the Mackenzie townsites. The goal is to reduce attractants in the community resulting in a reduction in food-conditioned bears, and help them return to their natural food sources.¹⁶⁹

Indigenous Partnerships and Invasive Species Management (2020-2021)

Project ID: PEA-F21-W-3170

This project, led by the Invasive Species Council of BC, will increase the capacity of Saulteau and West Moberly First Nations and potentially others to identify, manage, and monitor new and emerging invasive species in the Peace Reach. This program will build on the Indigenous community toolkit for managing invasive species. It will provide employment skills training and mentoring as well as regionally relevant resources, signage, and community presentations. A key deliverable will be the development of specific invasive plant management plans for Indigenous communities in the region.¹⁷⁰

Mapping Invasive Plant Risk Factors for Peace Wetlands (2020-2021)

Project ID: PEA-F21-W-3224

This Seed Grant project, led by Blackbird Environmental Ltd., is a desktop review that will utilize newly released predictive wetland ecosystem modelling data, in conjunction with other spatial information (e.g. from local governments and invasive plant committees), to assess risk and identify knowledge gaps and priority areas. It is anticipated that results from this Seed Grant project will lead to a larger future project to conserve the ecological functionality of wetlands threatened by invasive plant species.¹⁷¹

Mitigating Wildlife Migration Barriers in Peace Basin (2016-2017)

Project ID: PEA-F17-W-1463

This project will seek to restore connectivity in the Peace Basin, which has been heavily disrupted by hydroelectric reservoirs and related construction, by identifying hotspots of wildlife-vehicle

¹⁶⁸ "Peace Region fish and wildlife project list 2019-2020" (2019) at 6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/06/Project-List-2019-2020-F20-Peace-Region.pdf>>.

¹⁶⁹ "FWCP Peace Region 2015-16 Project Summary" (2015) at 1, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/04/Project-List-2015-2016-F16-Peace-Region.pdf>>.

¹⁷⁰ "Peace Region fish and wildlife project list 2020-2021" (2020) at 3, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/12/Project-List-F21-Peace-Region-Nov-30-2021.pdf>>.

¹⁷¹ "Peace Region fish and wildlife project list 2020-2021" (2020) at 6, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/12/Project-List-F21-Peace-Region-Nov-30-2021.pdf>>.

collisions and potential collisions, and making recommendations for cost-effective mitigation solutions.¹⁷²

UNBC Presentation Series (2021-2022)

Project ID: N/A

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.¹⁷³

Williston School Ecology Program (2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022)

Project IDs: N/A, PEA-F17-W-1422, PEA-F18-W2333, PEA-F19-W-2611, PEA-F20-W-2931, PEA-F21-W-3186, PEA-F22-W-3432

This multi-year project will improve understanding of local ecology for Peace Region elementary and high-school students. 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. 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.¹⁷⁴

¹⁷² "FWCP Peace Region 2016-17 Fish and Wildlife Project Summary" (2016) at 2, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/04/Project-List-2016-2017-F17-Peace-Region.pdf>>.

¹⁷³ "Peace Region Fish and Wildlife Project List 2021-2022" (2021) at 14, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Peace-Region-F22-January-11-2022.pdf>>.

¹⁷⁴ "Peace Region Fish and Wildlife Project List 2021-2022" (2021) at 11, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Peace-Region-F22-January-11-2022.pdf>>.

APPENDIX VI: PROJECTS CLASSIFIED AS “MAYBE”

There were no projects classified as “maybe” completed in the Peace Region. The following five projects were all completed or are currently ongoing in the Columbia Region.

Caribou Recovery (2021-2022)

Project ID: COL-F22-W-3500-DCA

This annual and ongoing project is a multi-agency effort led by the Province of BC to recover threatened caribou sub-populations. To date the FWCP has supported caribou recovery by assisting with population monitoring, transplants, providing information on predator-prey dynamics, and identifying potential habitat-restoration activities.¹⁷⁵

While this project description provides examples of past caribou recovery efforts, it does not specify the focus of this particular project. As the project is in progress, it could not be determined whether or not it could be considered compensation work.

Conservation of Trout Habitat in East Kootenay (2017-2018, 2020-2021)

Project IDs: UKE-F18-F-2440, COL-F21-F-3278

This project, led by the Province of BC, aims to conserve and improve the quality of critical spawning sites and early juvenile rearing habitat for two at-risk salmonid species (Westslope Cutthroat Trout and Bull Trout) in East Kootenay watersheds. This project will prioritize key trout habitat that has been impacted by human activities, and will inventory and assess habitat quality in newly proposed/established Wildlife Habitat Areas (WHAs). A subset of proposed/established WHAs will receive enhancement or restoration treatments.¹⁷⁶

While this project appears to focus on conserving and enhancing salmon habitat, it was classified as “Research & Information Acquisition,” suggesting that restoration may be a focus of future projects. Access was denied to the 2017-2018 project report and the 2020-2021 project was marked as still “in progress,” precluding any further assessment into project outcomes.¹⁷⁷

Creating of WHAs for Bull Trout in Upper Kootenay River (2016-2017)

Project ID: UKE-F17-F-1452

The objective of this project is to propose the creation of Wildlife Habitat Areas (WHAs) to protect critical Bull Trout spawning habitat in the Upper Kootenay River Watershed. Wigwam River, White

¹⁷⁵ “Columbia Region Fish and Wildlife Project List 2021-2022” (2021) at 20, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2021/04/Project-List-Columbia-Region-F22-April-22-2021.pdf>>.

¹⁷⁶ “Columbia Region fish and wildlife project list 2020-2021” (2020) at 2, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-May-21-2020.pdf>>.

¹⁷⁷ “Project Report List Columbia Region” (29 April 2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/results/project-report-list-columbia-region-april-27-2021/>>.

River, and Skookumchuck Creek will be targeted in priority as they received the majority of the spawning Bull Trout.¹⁷⁸

It is unclear what “propos[ing] the creation of WHAs to protect critical Bull Trout spawning habitat” entails. Project report access was denied due to the inclusion of sensitive information.¹⁷⁹

Salmo Watershed Fish Sustainability Plan – Update (2014-2015)

Project ID: N/A

The Salmo Watershed Streamkeepers Society intends to review...the Watershed Fish Sustainability Plan to assess the success achieved to-date in meeting its goals and objectives, and determine if existing ones need to be reinforced or new ones established. The work, that will provide a ‘road map’ to increased aquatic ecosystem health in this watershed, intends to protect Salmo River bull trout from further decline and to enhance the number to ensure a naturally self-sustaining population.¹⁸⁰

It is unclear from the project description whether reviewing the Sustainability Plan can be considered planning for future compensation work. Project report was not publicly available.¹⁸¹

¹⁷⁸ “FWCP Columbia Region 2016-17 Fish and Wildlife Project Summary” (2016) at 5, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F17-Apr-18-2016.pdf>>.

¹⁷⁹ “Project Report List Columbia Region” (29 April 2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/results/project-report-list-columbia-region-april-27-2021/>>.

¹⁸⁰ “FWCP-Columbia 2014-2015 Project Summaries” (2014) at 2, online (pdf): *Fish and Wildlife Compensation Program* <<https://fwcp.ca/app/uploads/2020/05/Project-List-Columbia-Region-F15-Project-Summaries-Apr-25-2014.pdf>>.

¹⁸¹ “Project Report List Columbia Region” (29 April 2021), online: *Fish and Wildlife Compensation Program* <<https://fwcp.ca/results/project-report-list-columbia-region-april-27-2021/>>.

APPENDIX VII: 1992 MOU BETWEEN BC HYDRO AND BC MINISTRY OF THE ENVIRONMENT

MEMORANDUM OF UNDERSTANDING

between

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

and

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

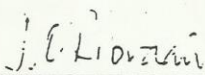
British Columbia Hydro and Power Authority (BCHPA) holds water licences which, in part, obligate it to undertake programs to address losses to fish, wildlife, and recreation. These programs are undertaken as cooperative initiatives with Ministry of Environment, Lands and Parks (MELP). The following principals have been accepted by both agencies and are intended to serve as guidelines for the drafting and implementation of programs to the satisfaction of the Water Comptroller.

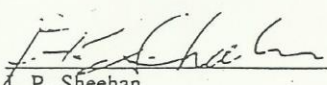
1. Programs are cooperative joint ventures between the two agencies aimed at sustaining and enhancing fish, wildlife and recreation affected by B.C. Hydro developments.
2. For the purposes of this agreement both agencies acknowledge that the mandate of BCHPA is the supply of electricity and the mandate of MELP is management of fish, wildlife and recreation. All programs must be consistent with the long-term policies and plans of MELP and BCHPA.
3. The aim of these programs is to provide for the preservation of recreational opportunities and to maintain and enhance natural production of fish and wildlife populations, with artificial production as a secondary priority.
4. Consistent with the concept of sustainable development, the intent is to maintain the biodiversity and recreational opportunities of the area through "in kind" programs. Where this is not possible, alternate programs of replacement, restoration, or substitution will be pursued.
5. As a primary focus, monies will be spent in the area of project influence, in order to maximize the return to fish, wildlife and recreation directly affected by the project.

If the opportunities for efficient use of monies do not exist in the area of project influence, monies may be expended anywhere else in the same river basin.

6. Programs will attempt to improve fish and wildlife populations through enhancement of existing habitat. It is acknowledged that research, planning, monitoring and evaluation will be required to achieve these results, but in all cases must be clearly related to the achievement of overall program objectives.

7. Recognizing that special impacts on aboriginal interests have occurred in the area of project influence, aboriginal involvement in programs will be encouraged.
8. Recognizing the importance of impacts on local interests, there should be provision for local public input to these programs. Further, local public involvement in the delivery of programs as contractors, sub-contractors, or volunteers is encouraged.
9. A communication plan for each program will be developed and any press release will be approved by both agencies.
10. Monies for these programs will be provided by BCHPA. It is intended that such funding will be of a continuing nature requiring capital funds. It is intended that year-to-year operations would come from earnings generated by the funds. It is further intended that the capital funds maintain their long-term real value. Joint review of compensation plans will occur annually. Comprehensive review of the programs's goals, achievements, future plans and financing will occur at least every five (5) years.
11. The level for dispute resolution are as follows:
 - a. Program Management
 - b. Assistant Deputy Minister, Fisheries Wildlife and Integrated Management, MELP; and Vice-President, Environmental and Corporate Affairs, BCHPA;
 - c. Deputy Minister, MELP; and Chairman, BCHPA;
 - d. Minister of Environment, Lands and Parks and Minister responsible for BCHPA.


G. R. Armstrong
Deputy Minister
Ministry of Environment, Lands and Parks


J. P. Sheehan
Senior Vice-President and
Chief Financial Officer
B.C. Hydro and Power Authority

APPENDIX VIII: RICK MORLEY STATEMENT – FORMER BC GOVERNMENT REGIONAL MANAGER OF FISH AND WILDLIFE; LONG-TIME CO-CHAIR AND MEMBER OF THE FWCP

Starting in 1990, Rick Morley was the Regional Manager of the Kootenay Regional Fish, Wildlife and Habitat Programs for the BC Government. Prior to the establishment of the FWCP, and approximately ten years prior to Rick becoming Regional Manager, the Kootenay Regional Fish and Wildlife Program received funds directly from BC Hydro to conduct compensation work. Rick notes that this arrangement worked quite effectively. In 1992-1993, BC Hydro took control of compensation fund administration from the Ministry of the Environment, facilitating the shift towards the current five-partner model. BC Hydro requested this shift as it believed it was not receiving sufficient credit for its investments.

During Rick Morley's involvement as Co-Chair of the FWCP Columbia Region Board, he was intimately involved in decision-making processes for the Region. Every spring, the FWCP would put out a call for projects which met the FWCP parameters, often failing to revisit earlier projects to assess their value or effectiveness. Government agencies, consultants and NGOs would submit projects. Some of the projects submitted were not designed by professional biologists with an understanding of ecological compensation work.

In 2008-2009, BC Hydro fired all their compensation program staff, citing budget cuts. There had been 5-6 staff members who monitored projects in the field, sat on the Technical Committees, and reviewed projects for technical soundness before providing information to the Board. An agreement was developed that the Ministry of the Environment would hire the staff but that BC Hydro's compensation would still be used to pay their salaries.

In 2010, Rick Morley became a public member of the Board. He believes that things only got worse from this point on as it was a continual fight to try and focus on compensation. With increasing regularity, projects that did not meet the FWCP parameters were getting approved based on discretionary majority rule. Rick suggests that the Board was often focused on protecting their own investments and that Board members would often argue in support of inventory projects on the ground that you need to know what a population or habitat looks like before you can compensate for it. Morley highlights that the Board often failed to take a pragmatic approach, leading to funding many "if we don't do it no one will" projects. Morley notes that this also often led to projects which subsidized key government functions being funded. As an example, invasives control is clearly a responsibility of the provincial government, but invasives projects were getting approved anyway. His involvement with the FWCP Columbia Region Board ended in 2018.

In 2019, Morley and the BCWF met with Ference & Company to discuss the FWCP for the audit. This meeting was not reflected in the final report, with Morley noting that it was as if they hadn't talked with the auditor. Morley believes that the auditor received questionable instructions, and that the Ministry of Environment simply let BC Hydro deal with the auditor – which one has to question when it was BC Hydro that was the object of the audit. He blames the Water Comptroller who should have been telling BC Hydro what to do.

Rick Morley holds that the transition to the Board model resulted in a shift from a professionally run, government-administered funding model to one based on "populism." The Board makes all

decisions whether or not to fund projects based on majority rule. Some public members of the Board had little to no relevant background experience, and some projects were neither technically nor scientifically sound. Therefore, the projects that were ultimately funded were often not the most efficient use of funds nor were they as directed to compensation as they should be. Overall, Morley believes that strategic ecological decisions are not being made because the FWCP's current governance structure and the level of Board discretion have resulted in significant numbers of non-compensatory projects being funded. Morley believes that the Auditor General needs to investigate to see if the public interest is being served through the FWCP's administration of BC Hydro's compensation funds.

APPENDIX IX: PERSONAL COMMUNICATIONS FROM HARVEY ANDRUSAK, FORMER PRESIDENT OF THE BC WILDLIFE FEDERATION

A few comments on the FWCP history:

Prior to the Revelstoke public hearings no public input was considered for fish and wildlife compensation due to construction of dams on the Columbia and Peace. Some general conditions were included in individual water licenses but no specifics. Revelstoke was a game changer as BC Hydro was forced to account for losses due to construction of the dam and actual dollars were committed for compensation of F&W. The government of the day were forced by the BCWF to permit government biologists to testify at the Hearings as to values lost. I was the fisheries expert--month long hearings, very tense, never liked Revelstoke ever since!

After Revelstoke government & BC Hydro worked towards consolidating all the F&W conditions in Columbia water licenses and this resulted in agreement at \$3.5 million annual indexed for inflation. I negotiated this on behalf of government. Obviously this amount was and still is inadequate compared to expenditures south of the border (~150 million annual) but at the time BC Hydro very much ran the Premier's office rather than the other way around .i.e. Premier's office simply deferred to BCH. Originally the \$3.5 million was housed in government. As your notes indicate BC Hydro didn't like this arrangement claiming they weren't getting enough credit for "their" investments. The government agreed and BC Hydro became the administrator of the funds. This has always been a major sticking point---these funds are NOT BC Hydro's, they are funds required by the Comptroller that BC Hydro MUST pay to compensate for F&W losses. At every meeting I attend I remind BC Hydro staff who speak as though they are doing everyone a favor by providing these funds. So, a primary issue is BC Hydro continuing to behave as if it's "their" money and administer the funds often without the FWCP Board knowing what is being charged against the fund (e.g. BCH off loading communications onto FWCP budget).

The government reps on the FWCP Board are guilty in allowing BC Hydro to control the business of the Board. These people are too busy to pay attention and simply defer to what BC Hydro wants. The coyote continues to be in charge of the chicken coup. But I digress. Bottom line is that the BCWF has always stated that BC Hydro should not be permitted to determine what the compensation funds are used for. BCWF did approach the Comptroller over the Revelstoke fisheries conditions that were agreed to: that is 500,000 kokanee, 1,000 rainbows and 4,000 bull trout were to be replaced. This has not occurred.

I went back over my files to 2012 and have attached a few letters that BCWF has sent expressing our concerns/objections. Successive governments have simply had BC Hydro draft the replies and so little has changed.

16 October 2021 – WATER COMPTROLLER

FROM: Harvey Andrusak

FYI---I just had a conversation with Connie Chapman of the Comptroller's office (CO)...

Connie told me that there is no order from the CO directing BC Hydro to implement compensation for the various Columbia dams. Evidently the government of the day (very unfriendly to fish & wildlife) took over this file (or assumed it) and administrative agreements were eventually

developed that Rick is very familiar with. What this meant was the ministry of the day was left to negotiate with BCH every step of the way (myself, Rick & others) without having the benefit of a neutral office if and when disputes arose---and there were many. John O'Riordan made many decisions around the FWCP on behalf of the government.

Connie did offer that the compensation funds were the public's, not BCH. At least that was her opinion which of course I agree with.

So what we have today is a FWCP that is essentially run by BCH with the ministry nowhere to be seen and no effective voice to counter BCH's hijacking of the programs. The BCWF letters of complaint over the last decade have essentially been ignored with ministerial responses drafted by BC Hydro personnel.

29 October 2021 – Re: Egregious specific examples of FWCP funding of stuff that should be carried out by government?

FROM: Harvey Andrusak

A good example Jesse. This is the same issue that we wrestle with in HCTF. i.e. is this government core business or not? At times the Government has provided various funds to deal with problem bears as you know. So is this project any different? The usual argument goes like this at FWCP Board meetings----well it is a core gov't responsibility but it "we" don't fund it then the project is unlikely to be funded. You end up scanning all the other proposals and conclude this is a better proposal than most others so let's fund it. And away we go down the slippery slope of accepting the government off loading. One can rationalize this is a compensation project due to displacement from flooding and so can many other FWCP projects.

I always point out the best examples of not meeting compensation objectives is Revelstoke where it was agreed to replace 0.5 million kokanee, 1000 rainbow spawners and 4,000 bull trout spawners. Hill Creek spawning channel can produce 0.5 million kokanee (2021 number is only 8700) but no replacement of 1000 rainbows nor 4,000 BT.

APPENDIX X: 2013 LETTER TO VARIOUS MINISTRIES



Unit 101 – 9706 188th Street
Surrey, BC V4N 3M2
Phone: 604-882-9988 Fax: 604-882-9933
Toll Free 1-888-881-BCWF (2293)
officeinfo@bcwf.bc.ca www.bcwf.bc.ca

January 9, 2013

The Honourable Steve Thomson
Minister of Forests lands and Natural Resource Operations
PO BOX 9049 STN PROV GOVT
VICTORIA BC V8W 9E2

The Honourable Dr. Terry Lake
Minister of Environment
PO BOX 9047 STN PROV GOVT
VICTORIA BC V8W 9E2

The Honourable Rich Coleman
Minister of Energy, Mines and Petroleum Resources
PO BOX 9060 STN PROV GOVT
VICTORIA BC V8W 9E3

Dear Ministers Thomson, Lake and Coleman:

RE: BC Hydro and the Fish and Wildlife Compensation Program

The BCWF has long expressed its concern and disagreement with the process by which BC Hydro meets its fish and wildlife compensation requirements under their various hydro dam water licences. The unilateral decision to lay off BC Hydro Compensation Program staff a year ago led to public outcry that your Ministries have yet to adequately address. The outcome has been a series of public meetings in the Kootenay Region in an effort to engage the public and define the most suitable delivery model for this important program known as the Fish and Wildlife Compensation Program (FWCP). The BCWF presented a position paper (enclosed) with a series of recommendations for the FWCP that reflected the views of most of the residents who attended the public meetings.

The BCWF and its 40,000 members are not satisfied with last month's announced changes and it is clear that BC Hydro continues to control the program for corporate interest despite the public's desire to see this program independent of BC Hydro to meet compensation responsibilities in a timely and effective manner. The first recommendation in our brief was to have the FWCP administered by a third party to ensure transparency, but this was not done. The governance model continues to have FCWP staff directed by BC Hydro despite their placement in the Ministry. In the Kootenays the FCWP manager continues to report to BC Hydro and continues to be part of the BC Hydro operations located in their Castlegar office. There has been little activity in other regions of the province such as the Peace/Williston.

The series of public meetings conducted by BC Hydro was a public relations exercise at a considerable amount of public money to re-affirm the status quo. The BCWF does not see any

Page 1 of 3

evidence that government staff or BC Hydro involved in the public review made a concerted effort to analyse the benefits and costs of establishing an independent compensation program based on criteria that compare effectiveness, efficiency, and transparency. Such criteria are essential to address the compensation requirements and leverage technical, financial and community including First Nations support.

The public meetings in the Kootenays clearly supported the need for a third party to administer this program. Last month BC Hydro announced changes to the FWCP that clearly does not reflect the public's view on how this program should be administered. The only change is a renaming of the current Steering Committee to a Board. This Board is in name only and continues to report to BC Hydro through the Policy Committee.

A functioning and independent Board would have the authority to establish priorities, outcomes and budgets available to achieve them in a timely and efficient manner for the geographical area they are responsible for. Furthermore, this Board would publically document the decisions, actions, performance measures, and achievements of the activities they oversee. The Board should outline the resources available to them and determine if they are adequate to address the environmental impacts in a reasonable timeframe, especially as it relates to the distribution abundance and sustainability of the fish and wildlife resources.

We now understand that a new "governance model" has been presented to the Boards of the three compensation programs with a due date of January 18th. The BCWF requests a copy of this document so that we can review it to compare it with the above mentioned tests.

The BCWF does not have evidence that BC Hydro can meet its water licence obligations nor is there any certainty that your government is willing to address the environmental impacts of past hydroelectric developments, particularly in the Peace and Columbia. There are a number of specific conditions to be met by BC Hydro for compensation of fish and wildlife attached to some of the water licences held by BC Hydro. These are not being met, especially for the Arrow Lakes Reservoir impacted by the Revelstoke Dam. There are other legacy impacts of hydroelectric development such as the Wilsey Dam not covered under the water licences that also should be addressed. The BC Wildlife Federation would like to see concerted action being taken to address the impacts based on the opportunities that exist to improve the sustainability and resilience of the fish and wildlife in the affected areas. The approach taken to date is study the environmental impacts of hydroelectric development. While assessments are essential, action and evaluation is required now in many areas across the province.

Given the circumstances, we asked your Ministries have the Water Comptroller conduct an audit of compensation efforts to meet these conditions yet this has not been acted upon by your government. There has been an internal review conducted by the Ministry of Environment that identified a number of outstanding issues, of particular note are the implications with respect to proposed developments in the Peace and with respect to the Columbia River Treaty.

Funding is inadequate to address the hydroelectric impacts provincially irrespective if they are covered by water licences. We are therefore requesting your Ministries address the immediate short fall in meeting the conditions of the water licence through direction to BC Hydro. In the longer term the sustainability issues should be address by strengthening the provincial Water Act.

If the government fails to take this immediate issue forward then the BCWF will have no recourse but to move forward to request the Auditor General's Office to conduct an audit of the conditions of water licence and performance of the compensation programs.

Thank you for the opportunity to raise our concerns regarding this issue and we look forward to further communications with you in this regard.

Yours in conservation,



Bill Bosch
President
BC Wildlife Federation

CC: The Honourable Bill Bennett, Minister of Community Sport and Cultural Development
Rob Fleming, Critic for Environment
John Horgan, Critic for Energy Mines and Petroleum Resources
Norm Macdonald, Critic for Forest Lands and Natural Resource Operations
Michelle Mungall, MLA Nelson-Creston
BCWF Board of Directors
BCWF Past Presidents
Ed Mankelow, BCWF Parks and Wilderness Committee Chairperson

APPENDIX XI: 2015 LETTER TO BC HYDRO



Unit 101 – 9706 188th Street
Surrey, BC V4N 3M2
Phone: 604-882-9988 Fax: 604-882-9933
Toll Free 1-888-881-BCWF (2293)
officeinfo@bcwf.bc.ca www.bcwf.bc.ca

January 14, 2015

Jessica McDonald
CEO, BC Hydro and Power Corporation
333 Dunsmuir
Vancouver, B.C.
V6B 5R3

Dear Ms. McDonald

I would like to thank you very much for the meeting in December with representatives of the BC Wildlife Federation (BCWF) in Vancouver regarding the delivery of fish and wildlife compensation programs. The Federation continues to be concerned that many of the outcomes for compensation identified as conditions of BC Hydro's water licences are not being achieved. We believe some minor improvements to the governance and delivery of the programs provincially and regionally are required to ensure effective program delivery with measurable outcomes. Such changes could also create opportunities to leverage community, technical and financial support by collaborating with other organisations on a watershed and landscape level to address the cumulative effects that development is having on the environment.

I would like to thank you for agreeing to have a 360 review of the compensation programs in 2015 and the inclusion of the BCWF in the development of the terms of reference and with the review itself. We understand that this will be done through the existing Boards for the compensation programs. In order to assist with the reviews we are requesting formal representation on the Bridge Coastal, Peace Williston and Columbia Boards in the same manner that First Nations, B.C. Hydro and the Province have permanent board membership.

Three subjects that did not get discussed in detail at the meeting that I would like to bring to your attention:

The location of the FWCP Manager in the Kootenays.

We remain unconvinced that this position needs to be located in a BC Hydro office with the rationale to date being that the position is served by BC Hydro administration. This same position was located in the Nelson government office for 12 years and was supported by BC Hydro administration. Therefore we believe the current BC Hydro rationale is flawed. This is problematic since the current public perception is that the FWCP Manager is a BC Hydro employee located in a BC Hydro office and is therefore hardly independent as suggested by your agency. Furthermore, the Manager reports to the FWCP-Columbia Board that is not a totally independent entity as required under the Society Act (i.e. the decision making process is not independent of BC Hydro). If there was any uncertainty in what our position is on this issue I simply want to reiterate here that we do not agree that the position should be located in a BC Hydro office. Nelson is the logical location.

Inclusion of BC Hydro's funding for the Creston Valley Wildlife Management Area (CVWMA) in the Columbia Compensation Fund.

B.C. Hydro has been providing significant funding to the CVWMA since the mid 1990's with essentially no monitoring or accountability. These monies are compensation for impacts to the CVWMA. We question why this area is treated and managed separately rather than being integrated with the existing FWCP-Columbia Program. We have argued publicly that CVWMA funding should be part of the due diligence provided by the Columbia FWCP and we request that you consider implementing this suggestion. We believe that by doing so there would be greater leverage opportunities as noted above.

BC Hydro meeting its obligations under its various water licence conditions.

On a specific issue, we believe that BC Hydro is not meeting its restoration commitments associated with the Revelstoke Dam. It is our view that the FWCP-Columbia has not achieved anything close to restoring fish losses on the Arrow Lakes Reservoir due to this dam. Most frustrating to us for a number of years has been BC Hydro staff preferring to argue what the losses were rather than accepting the agreed upon targets established at the Revelstoke public hearings. This is unproductive and has created an atmosphere of mistrust and has unnecessarily delayed implementation of some key restoration opportunities. This situation does not bode well for your agency as it attempts to develop restoration plans for fish and wildlife impacted by Site C and upstream impoundments. Finally, lack of meeting BC Hydro's commitments on the Arrow Lakes Reservoir is well known to our US counterparts during on-going discussions on renewal of the Columbia River Treaty.

Jessica, the BCWF wants to work with your agency and bring suggested solutions in a positive manner to the issues described above. We were very pleased to have our initial meeting with you and want to move forward working with your staff. We believe a high level discussion on these central issues is required and I suggest we meet within the month to explore how we can assist your agency with these challenges by offering some solutions. I look forward to meeting again early in the new year of 2015.

Sincerely,



George Wilson
President,
BC Wildlife Federation

cc: Hon. Bill Bennett
Rick Morley
Jim Glaicar
Al Martin
Edie Thome

APPENDIX XII: 2017 LETTER TO MINISTER OF ENERGY, MINES AND PETROLEUM RESOURCES



July 26th, 2017

The Honourable Michelle Mungall
Minister of Energy, Mines and Petroleum Resources
PO Box 9060, Stn Prov Govt
Victoria, B.C.
V8W 9E2

Dear Minister Mungall,

The BC Wildlife Federation (BCWF) notes with interest the review of BC Hydro Operations in the recent mandate letter from Premier John Horgan to you. The BCWF believes that the review should include consideration of a new model for compensation of fish and wildlife losses caused by construction and operation of BC Hydro facilities. The BCWF was largely responsible for establishment of two of the existing three compensation programs yet we have not had appointees to any of the three Boards, something that has long been a source of irritation for us.

Use of compensation funds should be driven by clear terms of reference that outline outcomes and eligible uses of funds driven by water licence conditions and other commitments.

We believe there should be transparent business planning and annual reporting to implement fish wildlife and habitat objectives for the compensation programs in the province.

Improved transparency would benefit all parties:

- by providing accountability for the use of revenues and benefits,
- by improving relations with First Nations and the public,
- by ensuring a level playing field and in maintaining credibility with public, local communities and neighbouring jurisdictions, and
- by conducting well governed programs that achieve their objectives to ensure that projects are implemented in a manner that foster evaluation, accountability and continuous improvement.

We propose an independent third-party agency be established to conduct administration and annual reporting of the program(s) funding provided by BC Hydro. The BCWF has long taken the view that the party responsible for impacting fish and wildlife habitat should be held responsible for mitigating, compensating or offsetting them. We also have long argued that that the agency responsible for the impacts should not be in control of the compensation programs established to restore impacted fish and wildlife and their habitats, due to the inherent conflict of interest between corporate objectives and these responsibilities.

The BCWF represents 50,000 outdoor enthusiasts across the province. Our members dedicate more than 300 thousand hours annually to conservation activities such as wildlife counts and research, restoration and protection of sensitive habitat and fish and wildlife recovery projects.

101-9706 188th St, Surrey, BC V4N 3M2 | T: 604-882-9988 TF: 1-888-881-2293 F: 604-882-9933 | www.bcwf.bc.ca



It was the intervention of the BCWF and other concerned groups at Revelstoke and other water hearings that contributed to the establishment of the fish and wildlife compensation programs. We request you to include us and our expertise as you plan to meet the requirements of the BC Hydro review. We want to meet with you right away to discuss how a new independent third-party agency will benefit us all. Our director of strategic initiatives will be calling your office to set up a meeting as soon as possible. Thank you.

Yours in conservation

A handwritten signature in black ink, appearing to read 'H. Andrusak', is positioned above the printed name.

Harvey Andrusak
President
BC Wildlife Federation

Copies to:

Hon. George Heyman, Minister of Environment and Climate Change Strategy
Hon. Doug Donaldson, Minister of Forests, Lands, Natural Resource Operations and Rural Development

APPENDIX XIII: BCWF INTERNAL INFORMATION NOTE EXCERPT

[...]

Fundamental change is required to move administration of these programs from BC Hydro back to the MFLNRO that is responsible for the on-the-ground restorations activities (note: in the 1980s these programs were directly administered by the Ministry). There would be some savings of economy by integrating the programs with the Ministry and or directly with HCTF. The BCWF believes that the funds should be lodged in a separate envelop within HCTF to ensure long term security, stability and impartiality in project reviews and approvals. **The precedent for establishing third party administration of compensation funds by HCTF was established in the early 1990s with Teck Ltd. for their Highland Valley property and has functioned successfully ever since. More recently the government itself has moved project funds into HCTF for purposes of administration.**

PROPOSED DELIVERY MODEL

1. Move administration of the Compensation Funds to a third party.

HCTF is the logical third party to hold the funds given its highly successful track record in the field of conservation and close working relationship with BC Hydro and the Ministries. By moving the funds to HCTF there is certainty that these funds will remain intact and not subject to future government or BC Hydro budgetary reductions. HCTF is a creation of the users of the fish and wildlife resources and is seen by all to be an independent, impartial agency [...]