

*Fisheries and Aquatic Habitat
Management Plan
Annual Report:
Jan 1, 2024 to Dec 31, 2024*

*Site C Clean Energy Project
Feb 10, 2025*

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1.0 Introduction

1.1 Background

The Fisheries and Aquatic Habitat Management Plan (FAHMP, or the Plan) describes the measures that will be used to mitigate the adverse effects of the Site C Clean Energy Project (the Project) on fish and fish habitat during the construction and operation of the Project. The Plan has been developed in accordance with the conditions of the Project's provincial Environmental Assessment Certificate (EAC #E14-02, or the EAC), including the EAC's Schedule B, and Federal Decision Statement issued for the Project, dated October 14, 2014 and reissued November 25, 2014 (the FDS). FDS conditions 8.3 to 8.7 refer to "a fish and fish habitat management plan", while EAC condition 4 refers to "a Fisheries and Aquatic Habitat Management Plan". Each refers to similar requirements for fish and fish habitat. For simplicity, BC Hydro developed one plan, entitled "Fisheries and Aquatic Habitat Management Plan" (FAHMP, or the Plan) that satisfies the conditions of both the EAC and the FDS. Revision 2 of the FAHMP was submitted on December 20, 2021, and is available on the Project's website¹.

As described in the FAHMP Section 7 and per the reporting requirement in condition 8.7 of the FDS – Implementation and Reporting, BC Hydro will provide annual reports on the implementation of the Plan to the Canadian Environmental Assessment Agency, now named the Impact Assessment Agency of Canada (the Agency). Condition 8.7 states:

The Proponent shall implement the plan and provide to the Agency an analysis and summary of the implementation of the plan, as well as any amendments made to the plan in response to the results, on an annual basis during construction and for the first ten years of operation and once every five years for the next 20 years.

This report is submitted to satisfy Condition 8.7. BC Hydro previously submitted to the Agency annual reports for earlier reporting periods of Project construction. The reporting period for this report covers January 1, 2023 through December 31, 2023. This report is specific to the implementation of mitigation measures for fisheries and aquatic habitat that are required under FDS conditions 8.3 to 8.7.

1.2 Status of Project Construction

Construction activities during the reporting period included components described in the Project's Environmental Impact Statement (Volume 1 Section 4 Project Description, sub-section .4 Construction).

Construction began at the Site C Project on July 27, 2015 and has been ongoing since.

Following the diversion of the Peace River in fall 2020, the Project has advanced construction in preparation to fill the reservoir.

The Project's website² provides information and regular updates on construction activities.

¹ Available at: <https://www.sitecproject.com/document-library/environmental-and-socio-economic-plans-and-reports>

² Information on construction activities available at the: <https://www.sitecproject.com/construction-activities/construction-bulletins>

1.3 Summary

Per FDS Condition 8.7, this report documents the measures to mitigate the adverse effects of the Project on fish and fish habitat during the reporting period (Tables 1 and 2). Standard mitigation measures and Project-specific mitigation measures were implemented to mitigate potential effects on fish and fish habitat in accordance with the implementation schedules in the FAHMP. BC Hydro audits compliance with these requirements by reviewing contractor Environmental Protection Plans (EPPs) and conducting audits and inspections during construction to verify implementation of the mitigation measures outlined in EPPs. The effective implementation of these measures was documented during most inspections. Corrective actions, where required, were identified and implemented.

Annual reporting will continue to document the implementation of the FAHMP. In addition, monitoring of physical habitat, lower trophic levels, fish abundance, and community composition under the Project's Fisheries and Aquatic Habitat Monitoring and Follow-up Program³ (FAHMFP) will provide information to evaluate the effectiveness of these measures to mitigate potential effects on fish and fish habitat over the longer term.

³ Available at: <https://sitecproject.com/sites/default/files/Fisheries-and-Aquatic-Habitat-Monitoring-and-Follow-up-Program.pdf>

2.0 Fisheries and Aquatic Habitat Management Plan

The objective of this report (the Report) is to describe the mitigation measures implemented during this period to meet the reporting requirements of FDS condition 8.7. The Report follows the information in Section 7.0 Implementation and Reporting of the FAHMP.

Tables 1 and 2 outline the structure of the Report. These tables list the Conditions (and components of the Conditions), as well as the corresponding sections of the FAHMP that pertain to the Conditions. These tables also list whether components within the Conditions occurred or were implemented during the reporting period, and if so, the corresponding section in the Report that summarizes the implementation. Section 7 of the Report is an analysis of implementation of the Plan.

Table 1. Environmental Assessment Certificate Conditions and Relevant Plan Sections.

EAC Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
FISH AND FISH HABITAT				
4	The EAC Holder must manage harmful Project effects on fish and fish habitats during the construction and operation phases by implementing mitigation measures detailed in a Fisheries and Aquatic Habitat Management Plan.	Described in rows below.	Described in rows below	Not Applicable
	The Fisheries and Aquatic Habitat Management Plan must be developed by a QEP	No. Occurred prior to the reporting period.	Not Applicable	This condition is addressed in FAHMP Section 8.0 Qualified Professionals
	The Fisheries and Aquatic Habitat Management Plan must include at least the following:	Described in rows below.	Described in rows below	Described in rows below

EAC Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	<ul style="list-style-type: none"> Remove temporary structures as soon as they are no longer required. 	Yes	Section 3.1	These conditions are addressed in Construction Environmental Management Plan (CEMP) Section 4.5, Fisheries and Aquatic Habitat Management.
	<ul style="list-style-type: none"> Maintain a 15 m machine free zone adjacent to watercourses during reservoir clearing (as measured from the Ordinary High Water Mark). 	No, clearing and reporting during previous reporting period	Not applicable	
	<ul style="list-style-type: none"> Place material relocation sites (R5a, R5b, and R6) 15 m back from the mainstem to avoid affecting Peace River fish habitat. 	Yes	Section 3.3	
	<ul style="list-style-type: none"> Contour mainstream bars to reduce potential for fish stranding, as advised by FLNR. 	Yes	Section 3.4	
	<ul style="list-style-type: none"> Incorporate fish habitat features into the final capping of material relocation sites upstream of the dam. 	Yes	Section 3.5	

EAC Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	<ul style="list-style-type: none"> Contour and cap with gravels and cobble substrate the spoil area between elevations 455 m and 461 m to provide a productive fish habitat that will be available to fish during the operation phase. 	Yes	Section 3.5	This condition is addressed in FAHMP Section 6.2.3.4, Dam Site Material Relocation Site Enhancement.
	<ul style="list-style-type: none"> Include fish habitat features (e.g., shears, large riprap point bars, etc.) in the final design of the north bank haul road bed material that would be placed in the Peace River. 	No, constructed and reported during previous reporting period.	Not Applicable	This condition is addressed in FAHMP Section 6.2.1.2, River Road Habitat Enhancement.
	<ul style="list-style-type: none"> Incorporate fish habitat features into the final design of the Highway 29 roadway that would border the reservoir, east of Lynx Creek. 	Yes	Not Applicable	This condition is addressed in FAHMP Section 6.2.3.2, Highway 29 Realignment Fish Habitat.
	<ul style="list-style-type: none"> Construct the Hudson's Hope shoreline protection with large material that will provide 	No, occurred during a previous reporting period.	Section 3.6	This condition is addressed in FAHMP Section 6.2.3.3, Hudson's Hope Shoreline

EAC Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	replacement fish habitat.			Protection Fish Habitat.
	<ul style="list-style-type: none"> Incorporate additional fish habitat features (e.g., shear zones and point bars) into the final design of the Hudson's Hope shoreline protection. 	No, occurred during a previous reporting period.	Section 3.7	This condition is addressed in FAHMP Section 6.2.3.3, Hudson's Hope Shoreline Protection Fish Habitat.
	<ul style="list-style-type: none"> Contour Highway 29 borrow sites prior to decommissioning to provide littoral fish habitat in the reservoir. 	No, occurred during a previous reporting period.	Section 3.8	This condition is addressed in FAHMP Section 6.2.3.1, Site C Reservoir Shoreline Enhancement.
	<ul style="list-style-type: none"> Cap material repositioning areas with gravel and cobble, and contour to enhance fish habitat conditions. 	Yes	Section 3.5	This condition is addressed in FAHMP Section 6.2.3.4, Dam Site Material Relocation Site Enhancement.
	<ul style="list-style-type: none"> Plant a 15 m wide riparian area along the reservoir shoreline adjacent to BC Hydro-owned farmland where necessary to provide riparian habitat and bank stabilization except as 	No, planned for implementation during subsequent stage of construction.	Not Applicable	This condition is addressed in FAHMP Section 6.2.3.5, Reservoir Shoreline Riparian Planting.

EAC Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	approved by the onsite environmental monitor.			
	<ul style="list-style-type: none"> Increase wetted habitat by creating new wetted channels and restoring back channels on the south bank island downstream of the dam. 	Yes	Section 3.9	This condition is addressed in FAHMP Section 6.2.1.1, Peace River Channel Contouring and Side Channel Enhancement.
	<ul style="list-style-type: none"> Enhance side channel complexes between the dam site and the confluence of the Peace and Pine rivers during low flows. 	Yes	Section 3.9	This condition is addressed in FAHMP Section 6.2.1.1, Peace River Channel Contouring and Side Channel Enhancement.
	<ul style="list-style-type: none"> Manage reservoir fluctuation within a 1.8 m maximum normal operating range from the maximum operating level of 461.8 m. 	Yes	Section 3.2	
	<ul style="list-style-type: none"> If the reservoir deviates from the normal operating range, the EAC Holder must report the event in accordance 	No. The reservoir did not deviate from the normal operating range.	Not Applicable	

EAC Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	with water licence requirements.			
	The EAC Holder must manage construction footprints to reduce the harmful Project effects on fish and fish habitat, in accordance with the conditions of the applicable <i>Fisheries Act</i> authorization(s) and direction provided by FLNR.	Yes. Construction footprints were managed in accordance with the conditions of the applicable <i>Fisheries Act</i> authorizations.		
	This draft Fisheries and Aquatic Habitat Management Plan must be provided to FLNR, MOE and Aboriginal Groups for review a minimum of 90 days prior to commencement of construction.	No. Occurred prior to the reporting period.	Not Applicable	This condition is addressed in FAHMP Section 2.3 Consultation
	The EAC Holder must file the Final Fisheries and Aquatic Habitat Management Plan with EAO, FLNR, MOE and Aboriginal Groups a minimum of 30 days prior to commencement of construction.	No. Occurred prior to the reporting period.	Not Applicable	
	The EAC Holder must develop, implement			

EAC Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	and adhere to the Final Fisheries and Aquatic Habitat Management Plan, and any amendments, to the satisfaction of EAO.			

Table 2. Federal Decision Statement Conditions and Relevant Plan Sections.

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
8.	Fish and Fish Habitat			
8.1	The Proponent shall undertake efforts to avoid or minimize adverse impacts to fish and fish habitat to ensure the continued availability of fisheries resources in the Local Assessment Area.	Yes, see rows below.	See rows below.	
8.2	The Proponent shall prepare and submit to the Agency an annual schedule identifying the location and timing of construction activities that may impact fish or fish habitat 90 days prior to such activities	Yes	Not applicable	Submitted under separate cover.

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	occurring.			
8.3.	The Proponent shall prepare, in consultation with Fisheries and Oceans Canada, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups, a fish and fish habitat management plan.	No. Occurred prior to the reporting period.	Not applicable	These conditions are addressed in the Fisheries and Aquatic Habitat Management Plan (FAHMP).
8.4	The Plan shall include:			
8.4.1.	Identification of baseline conditions for fish and fish habitat in the Local Assessment Area;	No. Occurred prior to the reporting period	Not applicable	This condition is addressed in FAHMP Section 4.0, Fish and Fish Habitat Baseline Conditions.
8.4.2.	Measures to mitigate potential effects on fish and fish habitat during construction and operation of the Designated Project including:	Yes, see rows below.	See rows below.	This condition is addressed in FAHMP Section 6.0, Fish and Fish Habitat Mitigation.
8.4.2.1.	Erosion and sediment control measures, riparian zone avoidance measures, best practices for watercourse crossings, in-stream work guidelines, and in-stream work timing windows;	Yes	Section 3.10	These conditions are addressed in CEMP Section 4.5, Fisheries and Aquatic Habitat Management.

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
8.4.2.2.	Measures to avoid or reduce fish stranding;	Yes	Section 3.11	<p>This condition is addressed in CEMP Section 4.5, Fisheries and Aquatic Habitat Management.</p> <p>See also FAHMP 6.2.1.1, Peace River Channel Contouring and Side Channel Enhancement.</p>
8.4.2.3.	Operational practices, technologies and design features that minimize downstream fish entrainment past the dam site;	Yes	3.17	This condition is addressed in FAHMP Section 6.2.2.1, Fish Entrainment.
8.4.2.4.	Measures to mitigate the effects of Total Dissolved Gas concentrations in tailwater on fish; and	Yes	3.18	This condition is addressed in FAHMP Section 6.2.2.3, Mitigation of Total Dissolved Gas.
8.4.2.5.	Measures to mitigate obstructed upstream fish passage for bull trout and, as appropriate and feasible, other migrating fish species;	Yes	Section 3.12	This condition is addressed in FAHMP Section 6.2.2.2, Upstream Fish Passage.
8.4.3.	An approach to monitor changes to fish and fish habitat baseline	Yes	Section 3.13	The approach is summarized in FAHMP Section 2.2, Scope as well

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	conditions in the Local Assessment Area;			in the monitoring programs listed in Appendix D. Further information on monitoring is provided in the Fisheries and Aquatic Habitat Monitoring and Follow-up Program.
8.4.4.	An approach to monitor and evaluate the effectiveness of mitigation or offsetting measures and to verify the accuracy of the predictions made during the environmental assessment on fish and fish habitat; and	Yes, monitoring and evaluation occurred per the approach in the Project's Fisheries and Aquatic Habitat Monitoring and Follow-up Program.	Section 3.13	The approach is summarized in FAHMP Section 2.2, Scope as well in the monitoring programs listed in Appendix D. Further information on monitoring is provided in the Fisheries and Aquatic Habitat Monitoring and Follow-up Program.
8.4.5.	Any other requirements identified by Fisheries and Oceans Canada in support of its application for an authorization under the <i>Fisheries Act</i> .	Not applicable	Section 3.14	To date, Fisheries and Oceans Canada has not identified other requirements in support of an application for an authorization under the <i>Fisheries Act</i> . Should DFO identify other requirements, these will be taken into account in

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
				amendments to the plan, as described in condition 8.7
8.5.	The Proponent shall submit a draft copy of the plan to the Agency, Fisheries and Oceans Canada, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups 90 days prior to submitting its application for authorization under the <i>Fisheries Act</i> .	No. Occurred prior to the reporting period.	Not Applicable	This condition is addressed in FAHMP Section 2.3 Consultation
8.6.	The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to submitting its application for authorization under the Fisheries Act. When submitting the final plan, the Proponent shall provide to the Agency an analysis that demonstrates how it has appropriately considered the input, views or information received from Fisheries and Oceans Canada, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups and shall describe how it has taken the plan into consideration as part of its application for an	No. Occurred prior to the reporting period.	Not Applicable	This condition is addressed in FAHMP Section 2.3 Consultation

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	authorization under the Fisheries Act.			
8.7.	The Proponent shall implement the plan and provide to the Agency an analysis and summary of the implementation of the plan, as well as any amendments made to the plan in response to the results, on an annual basis during construction and for the first ten years of operation and once every five years for the next 20 years.	Yes	This report addressed Condition 8.7	This condition is addressed in FAHMFP Section 7 Reporting
8.8	The Proponent shall develop an offsetting plan, in consultation with Fisheries and Oceans Canada, to offset residual serious harm to fish and monitor the effectiveness of offsets.	No, plan developed during a previous reporting period.	Section 3.15	Offsetting plans were submitted as a component of the applications for authorization under the Fisheries Act. Information from offsetting plans was submitted to CEAA as described under FDS Condition 8.9.
8.9	The Proponent shall conduct an analysis for any physical fish habitat offsets proposed in the offsetting plan, in consultation with Transport Canada, Environment Canada, Reservoir Area Aboriginal groups and Immediate Downstream	No, occurred during a previous reporting period.	Section 3.16	These conditions were met in a separate analysis.

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
	Aboriginal groups, that includes:			
8.9.1	the effects on migratory birds and their habitats;			
8.9.2	the effects on terrestrial species and their habitats;			
8.9.3	the effects on species at risk and species at risk habitat;			
8.9.4	the effects on current use of lands and resources for traditional purposes by Aboriginal peoples;			
8.9.5	identification of navigation impacts; and			
8.9.6	identification of potential sources of contamination (e.g. mercury).			

FDS Condition	Condition	Occurred During Construction Period for Report	Section in this Report	Plan Reference
8.10	The Proponent shall submit to the Agency the results of the analysis in condition 8.9, including a description of how the input, views or information received have been taken into account in finalizing its fish habitat offsetting plan.	No, occurred during a previous reporting period.	Section 3.16	This condition was met in a stand-alone document that was submitted to CEAA on June 24, 2016 prior to implementing the offsetting plan.

3.0 Summary of Plan Implementation

Section 3.1 “Remove temporary structures as soon as they are no longer required.”

In July 2023, BC Hydro received an EAC Amendment (EAC Amendment #8) which states:

“Temporary structures must be removed as soon as they are no longer required except if a QEP retained by the Holder assesses that:

- o Removing the structure will result in harm to fish and fish habitat; or
- o Retaining the structure will provide a benefit to fish; or,
- o The risk of removing the structure poses the same risk of harm to fish and fish habitat as retaining the structure.”

BC Hydro has complied with the terms of this EAC Amendment.

Section 3.2 “Manage reservoir fluctuation within a 1.8 m maximum normal operating range from the maximum operating level of 461.8 m.”

The reservoir elevation was maintained within 1.8 m of the maximum normal operating range for 461.8 m.

Section 3.3 “Place material relocation sites (R5a, R5b, and R6) 15 m back from the mainstem to avoid affecting Peace River fish habitat.”

Development of Relocated Surplus Excavated Material (RSEM) areas R5a, R5b and R6 commenced greater than 15 m back from the mainstem to avoid affecting Peace River fish habitat.

Section 3.4 “Contour mainstream bars to reduce potential for fish stranding, as advised by FLNR.”

Peace River Channel Contouring and Side Channel Enhancement (described in FAHMP Section 6.2.1.1) occurred over many years, per the schedule in the FAHMP. Contouring of some bar areas occurred during previous reporting periods. Physical and biological monitoring of the previously contoured bar occurred during the reporting period, in accordance with the FAHMP.

Section 3.5 “Incorporate fish habitat features into the final capping of material relocation sites upstream of the dam. Contour and cap with gravels and cobble substrate the spoil area between elevations 455 m and 461 m to provide a productive fish habitat that will be available to fish during the operation phase. Cap material repositioning areas with gravel and cobble, and contour to enhance fish habitat conditions.”

Fish habitat features, including spawning gravel and cobbles were placed as final capping materials on two relocated surplus excavated material sites (RSEM area R5a and RSEM area L5) upstream of the dam site relocation. The total area of fish habitat created by the capping met the requirements in the Project’s Fisheries Act Authorization. These RSEM areas were inundated by the reservoir to provide productive reservoir littoral fish habitat.

Section 3.6 “Construct the Hudson’s Hope shoreline protection with large material that will provide replacement fish habitat.”

Construction of the Hudson’s Hope shoreline protection, including riprap placement in the Peace River was completed in 2022. Riprap will provide cover habitat for fish species such as rainbow trout, and a diversity of habitat relative to the predominantly sandy shoreline in these areas of the Site C reservoir.

Section 3.7 “Incorporate additional fish habitat features (e.g., shear zones and point bars) into the final design of the Hudson’s Hope shoreline protection.”

Construction of the Hudson’s Hope shoreline protection, completed in 2022, included placement of boulder complexes at the toe of the riprap on the reservoir bed (described in FAHMP Section 6.2.3.3). The boulders will create reservoir reef habitat which would be utilized by larger (i.e., 20-30 cm) rainbow and bull trout.

Section 3.8 “Contour Highway 29 borrow sites prior to decommissioning to provide littoral fish habitat in the reservoir.”

The “Peaceview” Highway 29 borrow area near Cache Creek was contoured to provide reservoir littoral zone habitat between elevation 456 m and 459.75 m. Works at this borrow area were completed in 2022. Reservoir littoral habitat development is described in the FAHMP Section 6.2.3.1, Site C Reservoir Shoreline Enhancement.

Section 3.9 “Increase wetted habitat by creating new wetted channels and restoring back channels on the south bank island downstream of the dam. Enhance side channel complexes between the dam site and the confluence of the Peace and Pine rivers during low flows.”

Construction of the fish habitat enhancement sites in side channels on the south bank of the Peace River downstream of the dam site began in 2018. Habitat enhancement at this site is described in the FAHMP Section 6.2.1.1, Peace River Channel Contouring and Side Channel Enhancement. Construction of phase 1 was complete in December 2019 and phase 2 construction was completed in 2024.

Section 3.10 “The Plan shall include: Erosion and sediment control measures, riparian zone avoidance measures, best practices for watercourse crossings, in-stream work guidelines, and in-stream work timing windows.”

These measures are listed in the CEMP Section 4.5, Fisheries and Aquatic Habitat Management. The CEMP specifies the requirements for site-specific EPPs that are developed for specific components of work. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of the EPPs. In addition, BC Hydro has implemented an enhanced site-wide erosion and sediment control program that requires assessment of sites and preparation of detailed prescriptions by Qualified Erosion and Sediment Control Professionals and overseeing installation of measures by these professionals and ongoing re-inspections.

Section 3.11 “The Plan shall include: Measures to avoid or reduce fish stranding.”

The contouring of mainstem bars (described in the Section 3.4) has reduced the risk of fish stranding by reducing the area of the bars that dewater when discharge in the Peace River fluctuates.

Section 3.12 “Measures to mitigate obstructed upstream fish passage for bull trout and, as appropriate and feasible, other migrating fish species.”

Fish passage management was implemented as described in the Fish Passage Management Plan and FAHMP Section 6.2.2.2, Upstream Fish Passage. River diversion represented the first activity in the construction of the Project to affect upstream fish movement in the Peace River. As such, the temporary upstream fish passage facility (hereafter temporary facility) was operated from April 1 to September 15, 2024. The temporary facility was shutdown as planned on Sept 15, 2024 due to the commencement of the tunnel outlet cofferdam construction. From September 15 through October 31, 2024, fish passage was provided at the permanent upstream fishway and through ‘contingent fish capture and transport’. In general, the combination of operating the temporary and permanent facilities, along with contingent fish capture and transport was effective at providing for the upstream passage of fish. Further information can be found in the operations reports for 2024⁴.

Section 3.13 “The Plan shall include: An approach to monitor changes to fish and fish habitat baseline conditions in the Local Assessment Area.

An approach to monitor and evaluate the effectiveness of mitigation or offsetting measures and to verify the accuracy of the predictions made during the environmental assessment on fish and fish habitat.”

BC Hydro developed and implemented the FAHMFP to monitor changes in habitat conditions in the Local Assessment Area and the effectiveness of mitigation and offsetting measures, and to verify the predictions made during the environmental assessment. The general monitoring approach in the FAHMFP is to monitor changes in baseline conditions in the Local Assessment Area for physical habitat, lower trophic levels, fish abundance, and community composition. This information will be used to evaluate the effectiveness of Project mitigation or offsetting measures and verify the accuracy of predictions made during the Environmental Assessment. Monitoring under the FAHMFP in 2024 has been summarized in BC Hydro’s report: Fisheries and Aquatic Habitat Monitoring and Follow-up Program Annual Report: Jan 1, 2024 to Dec 31, 2024. This report, as well as previous reports under the FAHMFP are available on the Project website⁴.

³ Available at: <https://www.siteproject.com/document-library/environmental-management>

⁴ Available at: <https://www.siteproject.com/document-library/environmental-and-socio-economic-plans-and-reports>

Section 3.14 “The Plan shall include: Any other requirements identified by Fisheries and Oceans Canada in support of its application for an authorization under the Fisheries Act.”

Fisheries and Oceans Canada has not identified other requirements in support of an application for an authorization under the *Fisheries Act* in addition to those in the FAHMP.

Section 3.15 “The Proponent shall develop an offsetting plan, in consultation with Fisheries and Oceans Canada, to offset residual serious harm to fish and monitor the effectiveness of offsets.”

Offsetting plans were developed in consultation with Fisheries and Oceans Canada, and are described in:

1. “Section 9.0 Offsetting Plan” of the document titled “DFO – Application for Authorization Site Preparation – Site C Clean Energy Project British Columbia Hydro and Power Authority”
2. “Section 9.0 Offsetting Plan” of the document titled “DFO – Application for Authorization Dam Construction, Reservoir Preparation, and Filling – Site C Clean Energy Project British Columbia Hydro and Power Authority”

Section 3.16 Conditions 8.9 and 8.10 refer to “an analysis for any physical fish habitat offsets proposed in the offsetting plan.”

The analysis of physical fish habitat offsets⁵ was completed and submitted to the Agency during a previous reporting period.

Section 3.17 “Operational practices, technologies and design features that minimize downstream fish entrainment past the dam site”

Mitigation measures for fish entrainment are described in the Fish Passage Management Plan. Monitoring of fish entrainment is described in the FAHMFP.

Section 3.18 “Measures to mitigate the effects of Total Dissolved Gas concentrations in tailwater on fish”

Measures to reduce total dissolved gas concentrations during construction and operations were taken into account in the design and operation of the spillway and generating station as described in EIS Volume 2, Section 12.5. The specific mitigation measures include:

- The spillway design has been modified to reduce total dissolved gas generation
- Develop and implement an operational procedure to reduce the number of hold points and duration of the reservoir filling and turbine commissioning to reduce total dissolved gas concentration in tailwater
- Develop and implement an operational procedure to manage the rate of discharge at each gate to reduce dissolved gas generation

Operational procedures were implemented in 2024 during reservoir filling and turbine commissioning to reduce total dissolved gas. Monitoring of total dissolved gas is described in the FAHMFP.

⁵ “Site C Clean Energy Project, Site Preparation: Environmental Analysis of Physical Fish Habitat Offsets” dated Aug 5, 2015 and “Site C Clean Energy Project, Dam Construction, Reservoir Preparation and Filling: Environmental Analysis of Physical Fish Habitat Offsets” dated June 24, 2016.

4.0 Analysis of Plan Implementation

The FAHMP describes the following categories of measures:

- Standard mitigation measures during construction activities described in the CEMP (e.g., erosion and sediment control measures); and
- Project-specific mitigation measures described in the FAHMP (e.g., habitat enhancements for reservoir shoreline habitat enhancement works, capping of dam site material relocation site with fish habitat features).

During the reporting period, both standard mitigation measures and Project-specific mitigation measures were implemented to mitigate potential effects on fish and fish habitat.

Monitoring of physical habitat, lower trophic levels, fish abundance, and community composition under the FAHMFP will provide information to evaluate the effectiveness of these measures to mitigate potential effects on fish and fish habitat over the longer term.

5.0 Revisions to the Plan

The initial version of Fisheries and Aquatic Habitat Management Plan, Revision 1 dated June 1, 2015, was revised in 2021. These revisions were summarized in the 2021 annual report.

6.0 Qualified Professionals

This report was prepared by the following Qualified Individuals:

Qualified Individual	Expertise
Brent Mossop, MRM, RPBio	Fisheries