BC Hydro
Power smart

Downstream Infrastructure Adaptive Management Plan Annual Report 2025-2026

Site C Clean Energy Project
November 20, 2026

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1.0 Introduction

1.1 Background

The John Horgan Dam and Generating Station (formerly known as the Site C Clean Energy Project) is the third hydroelectric facility on the Peace River in northeastern British Columbia. The facility provides between 1,150 and 1,230 megawatts (MW) of generating capacity and approximately 5,100 gigawatt hours of energy annually to the province's integrated electricity system.

The John Horgan Dam and Generating Station officially transitioned from the Construction phase to the Operations phase when the first generating unit came into service on October 28, 2024. The sixth and final generating unit came into service on August 8, 2025, bringing the facility into full operation.

The Downstream Infrastructure Adaptive Management Plan (AMP) was developed collaboratively by BC Hydro and the Alberta Ministry of Environment and Protected Areas, in accordance with Condition 1 of the Site C Clean Energy Project's Environmental Assessment Certificate (EAC) and Condition 5 of the Federal Decision Statement (FDS), issued to BC Hydro on October 14, 2014, and November 25, 2014, respectively. The current version, Revision 4, is available at:
https://www.sitecproject.com/sites/default/files/Adaptive-Management-Plan-for-Downstream-Infrastructure.pdf

The purpose of the AMP is to manage potential risks to infrastructure located between the John Horgan Dam and the Town of Peace River, Alberta, due to low water flows during reservoir filling and operations. The plan focuses on the Town of Fairview intake, Shaftesbury Ferry, and the Town of Peace River intake. The AMP outlines water management strategies during reservoir filling and operations, identifies potential risks to downstream infrastructure, and describes mitigation and monitoring measures related to potential impacts. The plan also includes a communications and reporting framework with the Government of Alberta Ministry of Environment and Protected Areas (AEPA).

In accordance with EAC Condition 1 and FDS Condition 5.5, this report provides an annual update on the implementation of the AMP, covering the period of September 2025 to August 2026.

1.2 Nááchę Mege Reservoir

The John Horgan Dam and Generating Station created a new reservoir known as Nááchę Mege (Dreamer Lake), which extends from the Peace Canyon Generating Station tailrace downstream to the John Horgan Dam headpond. The reservoir is 83 km long and has a total surface area of approximately 9,330 ha.

Reservoir filling was completed on November 7, 2024, establishing the operating conditions under which the facility and the AMP are now implemented. The reservoir has a relatively limited operating range due to the storage capacity available in the upstream Williston Reservoir. Under normal operating conditions, reservoir levels are maintained between an elevation of 460.0 m and 461.8 m, with departures from this range expected only under exceptional circumstances, such as an emergency drawdown.

The completion of reservoir filling and transition to full facility operations provide the basis for ongoing downstream flow management, monitoring, and reporting activities under the AMP.

2.0 Stakeholder Engagement

2.1 Town of Fairview Intake

The Town of Fairview intake uses a booster pump located ~14 km downstream of the Dunvegan bridge crossing to supply water from the Peace River to storage ponds used for town operations. The booster pump experiences increased wear when suspended solid levels, as measured by a turbidity meter, are higher than 20 Nephelometric Turbidity Units (NTU). The operator prefers to pump when turbidity is 17 NTU or less to optimize the mechanical maintenance task frequency. The approach used by the Fairview intake operator is to pump water in the October to March period each year to fill the storage ponds. This annual pumping window targets the period when the Peace River typically has low turbidity levels.

In June 2024, the Town of Fairview and BC Hydro entered into a Memorandum of Understanding (MOU) to collect and share NTU and Total Suspended Solids (TSS) data with each other on request, for a 3-year period. Under the MOU, BC Hydro also provided financial assistance to the Town of Fairview in support of a 3-year TSS monitoring program. Monitoring by both parties remains ongoing.

During the reservoir filling and the initial months following the filling period, short duration (i.e., days) increases in turbidity were expected in the water column before settling out in the reservoir. This increase was expected due to reservoir shoreline erosion after the initial inundation, leading to temporary increased levels of suspended solids. Almost all solids leaving Nááchę Mege are expected to settle out prior to reaching the Fairview intake (located approximately 200 km downstream of John Horgan Dam).

BC Hydro's monitoring data indicate that turbidity levels have remained low during and after reservoir fill when compared to 2022 and 2023 data, both in the reservoir and immediately downstream of the dam.

2.2 Shaftesbury Ferry

The Shaftesbury Ferry operates seasonally, generally from mid-spring to mid-November when the Peace River is free of ice. The ferry can operate at partial capacity when river levels are at or above 900 $m^3/s \pm 100$ m^3/s. Partial capacity is possible when flows exceed 600 m^3/s.

During the reservoir filling period, BC Hydro coordinated with the AEPA to provide advance notice to ferry users regarding reduced ferry capacity. Flow forecasts were issued three times per week during the filling phase, and operational updates were posted to the Alberta 511 website to keep users informed.

Now into the operational phase, BC Hydro continues to work closely with the AEPA to ensure that low flow issues resulting from John Horgan Dam operations do not adversely affect ferry service. Continued communications on when higher flow releases can be accommodated will be shared with the AEPA. The ferry remained in service throughout the reservoir filling period, and continues to provide service during ongoing operations of the John Horgan Dam.

A summary of ferry operations during the reporting period (September 1, 2025 to August 30, 2026) is provided below.

Shaftesbury Ferry Operation Period	Operational Load Capacity
September 1 – 3, 2025	Light load
September 3 – November 11, 2025	Full load
November 12 – 13, 2025	Light load
November 13 – 27, 2025	Full load
November 28, 2025 – May 22, 2026	Seasonal shutdown
May 23 – August 30, 2026	Full load

2.3 Town of Peace River Intake

The Town of Peace River operates a raw water intake on the left bank of the Peace River, approximately 6 km upstream of the highway bridge crossing. This intake pumps water year-round and has not experienced outages due to low water in the years prior to and during Site C project construction.

Following the completion of reservoir filling, no infrastructure impacts were reported to BC Hydro from the Town of Peace River.

3.0 Communications and Reporting

During the reporting period, in May 2026, the provincial government announced that the permanent name of the now completed Site C project would be the John Horgan Dam and Generating Station. The reservoir received the name Nááchę Mege, which, from the Beaver language, translates to Dreamer Lake.

Following the completion of reservoir filling and commissioning of the six generating units, no significant new operations, or changes have been implemented at the facility. Processes remain in place to notify and engage stakeholders regarding potential downstream effects. There were no significant updates during the reporting period.

BC Hydro’s Generation System Operations (GSO) team maintains regular communications with the Alberta Environment and Protected Areas (AEPA) River Forecast Centre.

Additionally, the project website includes News, Reports, and Advisories sections. Annual water quality reports are made publicly available and are also posted to the website.

Now that the John Horgan Dam and Generating Station is in operation, BC Hydro will continue working closely with the AEPA, local governments, and other stakeholders to monitor and communicate regarding any potential effects of Peace River flows on downstream infrastructure. Annual reporting on the implementation of the Plan will continue through to the end of Year 5 of operations.