



SITE C ENVIRONMENTAL & SOCIAL PROGRAMS

March 2024

OVERVIEW OF SITE C ENVIRONMENTAL AND SOCIAL PROGRAMS

During the Environmental Impact Statement submission and review stages, BC Hydro identified the potential environmental and social impacts to numerous value components from the Site C Project. The provincial and federal government assessed these impacts and issued project approvals. Those approvals acknowledged the impacts and established hundreds of targeted conditions to either mitigate the impact, compensate for the impact, or study and report on the impact before, during and/or after construction.

As such, the Site C Project is unique from previous projects that were constructed without such an environmental regime. This hand-out provides an overview of the requirements.

HABITAT ENHANCEMENTS AND RECLAMATION - building approximately \$137 million in temporary or permanent wildlife and fish habitat improvements to offset environmental impacts. Typically, these improvements must be in place prior to the impact.

Reclamation of temporarily disturbed construction sites to a natural state is required throughout the Project area.

Habitat Construction Projects and Reclamation

Environmental Improvement	Status
Temporary Fish Passage	Complete (September 2020)
Coarse Woody Debris Piles	Complete (December 2020), 70 constructed for wildlife habitat
Artificial Bat Roosts (Bat Boxes)	Complete (March 2020), 121 installations
Artificial Bat Hibernacula	3 installations, one more to be installed in 2024.
Artificial Fisher Maternity Boxes	Complete (March 2020), 88 installations
Peace River Fish Habitat Enhancements	Approximately 120 ha of fish habitat enhancement including side channel development and mainstem channel contouring completed by December 2023.
Artificial Snake Dens	Complete (August 2023), 7 installations
Nest boxes (cavity nesting birds)	Complete (December 2023), 277 installations
Reservoir Shoreline Enhancements	59 ha of reservoir littoral habitat, 3.5 ha reservoir spawning shoal, and 21 ha enhanced littoral habitat completed by December 2023.
Permanent Fish Passage	Lessons learned from temporary facility incorporated into design. Construction started 2022 and complete by end of 2024.
Eagle Platforms	Complete (December 2023), 42 installations
Wetland Replacement	244.5 ha built to date. 35 ha under construction. Approximately 605 ha remaining in planning and design.
Reclamation	Underway: Reclamation of 24 ha complete, 100 ha active, and more than 650 ha remaining.

SITE C ENVIRONMENTAL AND SOCIAL PROGRAMS

TARGETED STUDIES - establishing pre-project impact baselines for regulator-specified wildlife, fish, plants or groups thereof, or physical conditions and post-project impact mitigation effectiveness data collection, analyzing changes and reporting findings to regulators.

The post-project impact data collection duration varies from as short as three years to as long as 30 years.

The Site C Project requires the undertaking of 33 baseline fish and aquatic, vegetation, wildlife, archaeological, and physical environment studies with an estimated cost of \$113 million through to the end of fiscal 2025.

Fish, Aquatic, Vegetation, Wildlife, Archaeological and Physical Environment Studies

Environmental Study	Initiation	End	Study Rationale
Fish and Aquatic Habitat Monitoring Programs			
Tributary Mitigation Opportunities Evaluation	2017	2022	Peace River fish habitat enhancement opportunities summary
Fish Stranding	2017	2029	Baseline & operations effects assessment
Peace River & Reservoir Water & Sediment Quality	2017	2034	Baseline & operations effects assessment
Reservoir & Peace River Fish Food Organisms	2017	2043	Baseline & operations effects assessment
Site C Reservoir Tributaries Fish & Spawning (e.g. Fish Movement, Bull Trout Spawning, Tributaries Fish Population Indexing Survey)	2017	2054	Baseline & operations effects assessment
Peace River Fish Community (e.g. Large Fish Indexing, Creel Surveys, Offset Effectiveness)	2017	2054	Baseline & operations effects assessment
Peace River Physical Habitat	2017	2054	Baseline & operations effects assessment
Small Fish Translocation	2017	2054	Baseline & operations effects assessment
Site C Reservoir Constructed Shallow Water Habitat Areas	2017	2054	Habitat enhancement effectiveness
Peace River Riparian Vegetation	2020	2049	Baseline & operations effects assessment
Peace River Water Levels Fluctuations	2020	2054	Baseline & operations effects assessment
Fishway Effectiveness	2021	2054	Fish passage effectiveness
Trap & Haul Fish Release	2021	2054	Fish passage effectiveness
Methylmercury	2022	2048	Baseline & operations effects assessment
Total Dissolved Gas	2023	2054	Operations effects assessment
Fish Entrainment	2025	2034	Operations effects assessment
Reservoir Fish Community (e.g., Site C and Williston reservoir Hydroacoustic, Trawl, and Gillnet Surveys and Site C Reservoir Creel Survey)	2025	2054	Operations effects assessment
Site C Reservoir Riparian Vegetation	2029	2049	Habitat enhancement effectiveness
Wildlife, Vegetation, Physical Environment, and Archaeological Monitoring Programs			
Ungulate Winter Range	2016	2016	Baseline
Migratory Birds (songbirds, waterbirds)	2016	2035	Baseline & operations effects assessment
Bald Eagles	2017	2035	Baseline & operations effects assessment
Amphibians	2017	2035	Baseline & operations effects assessment

SITE C ENVIRONMENTAL AND SOCIAL PROGRAMS

Environmental Study	Initiation	End	Study Rationale
Bat Boxes	2018	2035	Baseline & operations effects assessment
Fisher Habitat	2019	2023	Baseline
Snake Hibernacula	2019	2038	Baseline & operations effects assessment
Rare Plant Translocation	2019	2035	Baseline & operations effects assessment
Wetland Function	2019	2054	Baseline & operations effects assessment
Climate	2016	2030	Baseline & operations effects assessment
Air	2016	2027	Baseline & operations effects assessment
Palaeontological and Archaeological	2016	2029	Baseline & operations effects assessment
Noise	2017	2023	Baseline & operations effects assessment
Acid Rock	2019	2025	Baseline & operations effects assessment
Agricultural Monitoring Program	2019	2029	Baseline & operations effects assessment
Contaminated Sites	2019	2034	Baseline & operations effects assessment
Other End of Pipe & Peace River	2025	2030	Baseline & operations effects assessment
Greenhouse Gas	2026	2035	Baseline & operations effects assessment

ENVIRONMENTAL COMPLIANCE - ensuring compliance of staff, contractors, and consultants with all environmental requirements including those laid out in the project-wide construction environmental management plan and hundreds of activity-specific environmental protection plans.

Environmental compliance in 2024 is focused on the following areas:

Compliance Focus	Status
Managing environmental risk of work areas within reservoir and tailrace zones to prepare for filling	Completed final environmental inspections and reviewed/signed-off environmental completion reports.
Improving care of water systems	Removing weathered acidic rock and completion of permanent burial areas for this material; completing clean water bypass ditches; increasing treatment pond holding capacity and increasing the overall water holding capacity; and commissioning new water treatment systems.
Improving hydrocarbon management	Required any non-compliant contractors to immediately address the non-compliances and implement an action plan that improves maintenance practices. Placing do-not-operate tags on contractors' leaking equipment.
Waste management plans related to animal attractants	Removed attractants, repaired, and replaced bins and implemented a cross project attractant management awareness initiative.
Managing Project wildlife interactions	Ongoing use of wildlife experts to monitor wildlife/human interactions.
Prevention of bird nesting in the diversion headpond area	Re-installation of Bank Swallow netting to minimize harm to active nest colonies due to fluctuating headpond elevations during the nesting season in 2024.

Estimated value of Site C contractor's environmental compliance activities is approximately 1-3% of construction value. For example, damsite care of water costs to date are greater than \$50 million.

SITE C ENVIRONMENTAL AND SOCIAL PROGRAMS

SOCIAL AND COMMUNITY - providing more than \$100 million in compensation to either fund works included within the signed community agreements or to be used at the discretion of a third party, such as the \$20 million Agricultural Fund.

Community programs within the Peace River Region include road improvements, food transfer program and recreation opportunities.

Social and Community Programs

Social & Community Program	Status
Dam Site Landfill Diversion	Underway, including diversion of Styrofoam from the local landfill.
Site C Camp Food Transfer and Bottle Donation	Underway, including transfer of about 150kg – 200kg of repackaged and donated food per day and \$4-6K a month in bottle donations to the community.
Housing	Complete: <ul style="list-style-type: none"> • 50 low-income rental units owned & operated by BC Housing in Fort St John • 20 new temporary long-stay RV accommodations at Peace Island Park in Taylor
Daycare	Complete: 37 new daycare spaces in Fort St John.
Highway Webcam and Signage	Complete: Installation of <ul style="list-style-type: none"> • Highway webcam on Hwy 97 near Taylor • changeable message signs on Highway 97 on the south Taylor Hill and on the hill north of Taylor.
Highway Lighting	Complete: Installation of lighting along Highway 97 through Taylor.
Road Improvements	Complete: Public road improvements to Old Fort, 240, 269 and 271 roads.
GO Fund	Underway: Funding to not for profits within the region administered by Northern Development to support to community services. To date, 94 projects have received \$827,231 since the fund was launched in 2016.
Regional Legacy Benefits Agreement	Established: Payments of \$2.4M / year (plus annual inflation increase) for 70 years, to PRRD and member communities once Site C becomes operational.
District of Hudson's Hope - Community Measures Agreement	Agreement signed, includes contributions towards community enhancement such as park improvements, compensation for permanent inundation of land no longer available for development and revitalization of a residential sub-division including the building of a demonstration home.
District of Taylor Community Measures Agreement	Agreement signed, includes contributions towards emergency preparedness, shoreline protection, and water supply monitoring.
Fort St. John Community Measures Agreement	Agreement signed, includes contributions towards community recreation, water quality monitoring, and policing services.
Chetwynd Community Measures Agreement	Agreement signed, includes contributions toward Project engagement, emergency road rescue services, south bank recreation opportunities.
Agricultural Compensation Fund	Underway: Established \$20M agricultural compensation fund for use in the Peace Region to support small agricultural projects and administered by the Peace Region Agricultural Board. To date, the fund has provided approximately \$3.3M for 101 projects.
Outdoor Recreation	Underway, includes: <ul style="list-style-type: none"> • \$200K Community (Rustic) Recreation Site Fund • \$200K Reservoir Navigation/Recreation Opportunities Plan • Vessel Portage Program • Building and operating three permanent Site C reservoir boat launches and day use areas at Halfway River, Lynx Creek, and at the base of D.A. Thomas Road in Hudson's Hope.

SITE C ENVIRONMENTAL AND SOCIAL PROGRAMS

Social & Community Program	Status
Skills and Trades Training	Complete: Approximately \$1.5 million invested to help increase the availability of local labour through skills and trades training programs including contributions to Northeast Native Advancing Society and Northern Opportunities.

ESTIMATED VALUES OF THE ABOVE AND RELATED PROGRAMS DURING CONSTRUCTION

- \$409 million plus ~1-3% of construction costs to contractors & other related costs

INDIGENOUS AND PUBLIC ENGAGEMENT

In support of the development and implementation of these programs, below are examples of engagement activities with Indigenous and non-Indigenous communities:

- **Indigenous engagement**
 - Dam site construction tours
 - Highway tours of the Peace River and surrounding project areas
 - Community meetings with First Nations members
 - Environmental Forum and subcommittee meetings, where we collaborate to find ways to mitigate environmental impacts and discuss construction permits
 - Culture and Heritage Resources Committee and Cultural Centre Working Group meetings, where we work together on cultural impact mitigation efforts
 - Reporting progress to Chief and Council
- **Public engagement**
 - In-community information open houses
 - Staff participation at community events: trade shows, fall fairs
 - EAC Amendment teleconferences
 - Ongoing Regional Community Liaison Committee meetings, Agricultural Board meetings, key stakeholder meetings
 - Quarterly Peace River/Williston Reservoir Advisory Committee (PWAC) meetings

LINKS TO RELATED MATERIALS

<https://www.sitecproject.com/news-and-information/information-sheets>

Fish & Aquatic Program <https://www.sitecproject.com/fish-aquatic-programs>

Methylmercury Program <https://www.sitecproject.com/methylmercury-program>

Wildlife and Vegetation Program <https://www.sitecproject.com/wildlife-and-vegetation>

Heritage and Archeology Program <https://www.sitecproject.com/heritage-and-archaeology>