

## Decision Statement

Issued under Section 54 of the *Canadian Environmental Assessment Act, 2012*

to  
British Columbia Hydro and Power Authority  
c/o Brian Knoke  
Executive Vice President

333 Dunsmuir  
Vancouver, British Columbia  
V6B 5R3

for the  
**Site C Clean Energy Project**

### **Description of the Designated Project**

BC Hydro and Power Authority (the Proponent) proposes to construct and operate a dam and 1,150 to 1,230-megawatt hydroelectric generating station on the Peace River in northeastern British Columbia. The Site C Clean Energy Project (the Designated Project) would be the third in a series of dams on the Peace River in British Columbia. The project components would consist of an earthfill dam 1,050 metres long and 60 metres high, a 1,150 to 1,230-megawatt generating station and associated structures, a 83-kilometre long reservoir, realignment of four sections of Highway 29, and two 77-kilometre transmission lines along an existing transmission line right-of-way connecting Site C to Peace Canyon.

### **Conduct of the Environmental Assessment**

The former Minister of the Environment established a Joint Review Panel for the Site C Clean Energy Project with the Government of British Columbia. The Joint Review Panel commenced its work on August 2, 2013. The Joint Review Panel conducted its review in a manner that met the requirements of the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) and submitted its report to me in my capacity as Minister of the Environment on May 1, 2014.

### **Decision on Environmental Effects referred to in subsection 5(1) of CEAA 2012**

In accordance with paragraph 52(1)(a) of CEAA 2012, after considering the report of the Review Panel on the Site C Clean Energy Project and the implementation of mitigation measures that I consider appropriate, I determined that the Designated Project is likely to cause significant adverse environmental effects referred to in subsection 5(1) of CEAA 2012.

In accordance with subsection 52(2) of CEAA 2012, I referred to the Governor in Council the matter of whether those significant adverse environmental effects were justified in the circumstances.

In accordance with paragraph 52(4) (a) of CEAA 2012, the Governor in Council decided that the significant adverse environmental effects that the Designated Project is likely to cause are justified in the circumstances.

In accordance with subsection 53(1) of CEAA 2012, I have established the conditions below in relation to the environmental effects referred to in subsection 5(1) of CEAA 2012, with which BC Hydro and Power Authority must comply.

#### **Decision on environmental effects referred to in subsection 5(2) of CEAA 2012**

The carrying out of the Designated Project may require the following federal authorities to exercise a power or perform a duty or function conferred on them under an Act of Parliament other than CEAA 2012:

- Fisheries and Oceans Canada may issue an authorization under subsection 35(2)(b) of the *Fisheries Act*; and
- Transport Canada may approve the dam and ancillary works under subsection 6(1) of the *Navigation Protection Act* (NPA) and may permit ancillary works under subsection 9(1) of the NPA.

In accordance with paragraph 52(1)(b) of CEAA 2012, after considering the report of the Review Panel on the Site C Clean Energy Project and the implementation of mitigation measures that I consider appropriate, I determined that the Designated Project is likely to cause significant adverse environmental effects referred to in subsection 5(2) of CEAA 2012.

In accordance with subsection 52(2) of CEAA 2012, I referred to the Governor in Council the matter of whether those significant adverse environmental effects were justified in the circumstances.

In accordance with paragraph 52(4) (a) of CEAA 2012, the Governor in Council decided that the significant adverse environmental effects that the Designated Project is likely to cause are justified in the circumstances.

In accordance with subsection 53(2) of CEAA 2012, I have established the conditions below in relation to the environmental effects referred to in subsection 5(2) of CEAA 2012, with which BC Hydro and Power Authority must comply.

**Issuance**

This Decision Statement is issued on November 25, 2014 at Ottawa, Ontario by:

<Original signed by>

**The Honourable Leona Aglukkaq**

Minister of the Environment

## 1. Definitions

1.1 *Aboriginal groups* – Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups.

*Reservoir Area Aboriginal groups* – Saulteau First Nations, Blueberry River First Nations, West Moberly First Nations, Doig River First Nation, McLeod Lake Indian Band, Halfway River First Nation and Prophet River First Nation.

*Immediate Downstream Aboriginal groups* – Horse Lake First Nation, Métis Nation British Columbia, Kelly Lake Métis Settlement Society, Duncan's First Nation and Dene Tha' First Nation.

1.2 *Agency* – Canadian Environmental Assessment Agency.

1.3 *Aquatic* – water, riparian, wetland and littoral zones frequented by fish, aquatic organisms, species at risk and migratory birds.

1.4 *Baseline* – environmental conditions immediately prior to initiating construction of the Site C Clean Energy Project.

1.5 *Construction* – vegetation clearing, earthworks, building, installing, replacing, repairing, altering, maintaining or removing works that modifies the land, vegetation and/or natural environment, related to the building of new Project components and upgrades to existing infrastructure.

1.6 *Days* – calendar days.

1.7 *Designated Project* – the Site C Clean Energy Project as described in documents to support the environmental assessment under the *Canadian Environmental Assessment Act, 2012*. Canadian Environmental Assessment Registry Reference Number 63919.

1.8 *Fish habitat* – spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes.

1.9 *Local Assessment Area* – for fish and fish habitat, this means the Peace River and its tributaries in the proposed reservoir area, the Peace River downstream of the dam until the Many Islands area, Alberta and watercourses and waterbodies within the transmission line and roadway rights-of-way.

1.10 *Mitigate* – implementation of mitigation measures.

1.11 *Mitigation Measures* – as defined in the *Canadian Environmental Assessment Act, 2012*, measures for the elimination, reduction or control of the adverse environmental effects of a designated project, and includes restitution for any damage to the environment caused by those effects through replacement, restoration, compensation or any other means.

1.12 *Migratory bird* – a migratory bird referred to in the *Migratory Birds Convention Act, 1994* and includes the sperm, eggs, embryos, tissue cultures and parts of the bird.

1.13 *Navigation impacts* – includes impacts on the flow rate, water depth and water width that affect the passage of a vessel, including a vessel used by Aboriginal people in the context of their current use of lands and resources for traditional purposes.

1.14 *Operation* – the operation of the Designated Project as of the date electricity will be commercially generated.

1.15 *Project Activity Zone* – the area within which the Project components will be found or will occur, but not including existing transportation infrastructure that will be used without modification to transport materials or personnel required for the Project.

1.16 *Proponent* – British Columbia Hydro and Power Authority.

1.17 *Qualified individual* – is defined as someone who, through suitable education, experience and knowledge relevant to a particular matter, may be reasonably relied on to provide advice within his or her area of expertise.

1.18 *Reservoir filling* – period following the completion of the construction of dam and spillway during which water flows will be reduced in order to raise the water levels in the Designated Project reservoir to specified levels for testing and commissioning of the generating units.

1.19 *Wetland* – land saturated with water long enough to promote formation of water altered soils, growth of water-tolerant vegetation and various kinds of biological activity that is adapted to the wet environment and separated into five classes: fen, bog, marsh, swamp and shallow open water wetlands (includes open water areas less than two metres deep with wetland characteristics).

## **Conditions**

These conditions do not relieve the Proponent from any obligation to comply with other legislative or other legal requirements.

### **2. Accidents and malfunctions**

- 2.1. The Proponent shall construct and operate the Designated Project in a manner that prevents accidents and malfunctions that may result in adverse environmental effects.
- 2.2. The Proponent shall develop, in consultation with Environment Canada and the Agency, a plan to prevent accidents and malfunctions and outline procedures in the case of occurrence of an accident or malfunction.
- 2.3. The plan shall include:
  - 2.3.1. identification of potential accidents and malfunctions associated with the Designated Project that may result in adverse environmental effects;
  - 2.3.2. for each potential accident and malfunction identified:
    - 2.3.2.1. measures to prevent its occurrence;
    - 2.3.2.2. a communication plan in case of occurrence, including notifications to be provided;
    - 2.3.2.3. measures to be implemented in case of an occurrence to minimize any adverse environmental effects; and
    - 2.3.2.4. a reporting process on any environmental effects of the occurrence.
- 2.4. The Proponent shall submit to Environment Canada and the Agency a draft copy of the plan for review 90 days prior to initiating construction.
- 2.5. The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to initiating construction.
- 2.6. The Proponent shall implement the plan and provide to the Agency a review and summary of the implementation of the plan as well as any updates required to the plan on an annual basis commencing with construction. In the event of an occurrence of an accident or malfunction, the Proponent shall update the plan to incorporate new procedures and measures to avoid a reoccurrence, as necessary.

### **3. General Conditions**

- 3.1 The Proponent shall, throughout the life of the Designated Project, ensure that its actions in meeting the conditions set out in this Decision Statement are informed by the best available information and knowledge, based on validated methods and models, undertaken by qualified individuals and apply the best available economically and technologically feasible mitigation strategies.
- 3.2 The Proponent shall consult Aboriginal groups on the most appropriate manner in which to engage in consultation to meet the requirements of the conditions set in this Decision Statement.
- 3.3 The Proponent shall carry out consultation for the plans required in this Decision Statement in a manner whereby it:
  - 3.3.1 provides, to each government department and agency, organization and Aboriginal group to be consulted:
    - 3.3.1.1 an opportunity to provide input during the development of the plan;
    - 3.3.1.2 a draft plan of sufficient detail and completeness to allow that government department and agency, organization and Aboriginal group to prepare its views or information on the draft plan; and
    - 3.3.1.3 a reasonable period for that government department and agency, organization and Aboriginal group to prepare and present its views or information on the draft plan unless the timeframe is otherwise specified;
  - 3.3.2 considers, fully and impartially, the views or information received;
  - 3.3.3 is able to demonstrate to the Agency its appropriate consideration of the views or information received; and
  - 3.3.4 identifies opportunities for the engagement of government departments and agencies, organizations and Aboriginal groups during the implementation of the plan, as appropriate.
- 3.4 The Proponent shall make all final plans and annual reports required as conditions of this Decision Statement available on its website.

### **4. Water flow**

- 4.1. The Proponent shall maintain a minimum release of 390 cubic metres per second from the Site C dam.

- 4.2. The Proponent shall, 90 days prior to initiating reservoir filling, provide the Agency with estimates of downstream water flows and water levels to Peace Point, Alberta for scenarios at minimum, average and maximum rates of reservoir filling and a description of how these estimates have been used to undertake reservoir filling in a manner that would minimize impacts on downstream water flows and water level conditions.

## **5. Potential risks to infrastructure**

- 5.1. The Proponent shall manage potential risks to infrastructure between the Site C dam and the Town of Peace River, Alberta caused by low water flows during reservoir filling and operation.
- 5.2. The Proponent shall work with the Government of Alberta to jointly develop an adaptive management plan to manage potential risks to infrastructure between the Site C dam and the Town of Peace River, Alberta caused by low water flows during reservoir filling and operation. For the purposes of the plan, infrastructure shall include water intakes, ferry crossings and any other activities identified by the Proponent and the Government of Alberta.
- 5.3. The plan shall include:
  - 5.3.1. provisions for assessing potential risks to infrastructure caused by low water flows;
  - 5.3.2. provisions for obtaining baseline and operational flow information;
  - 5.3.3. provisions for obtaining information on any current impacts to infrastructure attributable to low water flows;
  - 5.3.4. identification of any impacts to infrastructure attributable to low water flows; and
  - 5.3.5. mitigation measures such as additional flow regulation, adjustment to Alberta infrastructure and notifying the Government of Alberta of prolonged low water flow conditions, necessary to avoid or minimize impacts attributable to low water flows.
- 5.4. The Proponent shall submit the plan to the Agency a minimum of 30 days prior to initiating reservoir filling.
- 5.5. The Proponent shall implement the plan and report on the results to the Agency on an annual basis commencing from reservoir filling through to the end of year five of operation.

## **6. Downstream monitoring and reporting**

- 6.1. The Proponent shall analyze the accuracy of predictions made during the environmental assessment on the effects of the Designated Project on downstream water flow, water level and ice (e.g. freeze-up levels, freeze-up and break-up dates and ice thickness).
- 6.2. The approach to undertaking this analysis shall include:
  - 6.2.1. assembly of the necessary water flow, water levels and ice monitoring data from existing monitoring stations; and
  - 6.2.2. a comparison of the monitoring data with the predictions made during the environmental assessment, including predicted effects from climate change, to assess the accuracy of those predictions.
- 6.3. The Proponent shall submit to the Agency the proposed approach to undertaking the analysis for review 90 days prior to initiating reservoir filling.
- 6.4. The Proponent shall submit the final approach to undertaking the analysis to the Agency a minimum of 30 days prior to initiating reservoir filling.
- 6.5. The Proponent shall implement the approach and provide to the Agency an analysis and summary of the results, as well as any amendments made to the approach in response to the results, on an annual basis from the initiation of reservoir filling and for the first 20 years of operation.

## **7. Water quality**

- 7.1. The Proponent shall develop, in consultation with Environment Canada and Natural Resources Canada, a water quality management plan to address potential environmental effects to the aquatic environment from the Designated Project, including acid rock drainage and metal leaching.
- 7.2. The plan shall include:
  - 7.2.1. the results of groundwater and surface water quality modeling supported by pertinent geochemical data;
  - 7.2.2. identification of water quality parameters to be monitored and establishment of threshold values above which mitigation measures must be taken;
  - 7.2.3. identification of the geographic extent, frequency and duration of water quality monitoring;

- 7.2.4. baseline sampling of parameters established in accordance with condition 7.2.2;
- 7.2.5. monitoring of parameters established in accordance with condition 7.2.2;
- 7.2.6. identification of potential preventative measures to limit acid generation and metal leaching;
- 7.2.7. identification of potential mitigation measures if water quality threshold values specified in 7.2.2. are exceeded; and
- 7.2.8. a process for implementing mitigation measures to address water quality impacts, if necessary.

7.3. The Proponent shall submit to the Agency, Environment Canada and Natural Resources Canada a draft copy of the plan for review 90 days prior to initiating construction.

7.4. The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to initiating construction. 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 Environment Canada and Natural Resources Canada.

7.5. 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 throughout construction and during operation until such time as the threshold values established in condition 7.2.2 have not been exceeded for five consecutive years.

## **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.
- 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 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.

8.4. The plan shall include:

- 8.4.1. identification of baseline conditions for fish and fish habitat in the Local Assessment Area;
- 8.4.2. measures to mitigate potential effects on fish and fish habitat during construction and operation of the Designated Project including:
  - 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;
  - 8.4.2.2. measures to avoid or reduce fish stranding;
  - 8.4.2.3. operational practices, technologies and design features that minimize downstream fish entrainment past the dam site;
  - 8.4.2.4. measures to mitigate the effects of Total Dissolved Gas concentrations in tailwater on fish; and
  - 8.4.2.5. measures to mitigate obstructed upstream fish passage for bull trout and, as appropriate and feasible, other migrating fish species;
- 8.4.3. an approach to monitor changes to fish and fish habitat baseline conditions in the Local Assessment Area;
- 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
- 8.4.5. any other requirement identified by Fisheries and Oceans Canada in support of its application for an authorization under the *Fisheries Act*.

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 *Fisheries Act*.

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 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.
- 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.
- 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 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).

- 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.

## **9. Disturbance and destruction of migratory birds**

- 9.1. The Proponent shall ensure that the Designated Project is carried out in a manner that avoids mortality and disturbance of migratory birds and their nests.
- 9.2. The Proponent shall prepare and submit to the Agency an annual schedule, describing the location and timing for construction and reservoir filling activities, 90 days prior to initiating any of these activities.
- 9.3. The Proponent shall develop, in consultation with Environment Canada, a plan to monitor and mitigate potential disturbance of breeding migratory birds in and adjacent to the Project Activity Zone, including the area immediately downstream of the dam where risks to migratory bird nests could occur, during construction, reservoir filling and operation.

9.4. The plan shall include measures to undertake construction, reservoir filling and operation in a manner that avoids or minimizes the risk of disturbance and mortality to migratory birds and their nests.

9.5. The Proponent shall, in preparing the plan, consult:

9.5.1. Environment Canada's policy on *Incidental Take of Migratory Birds in Canada*; and

9.5.2. Environment Canada's avoidance guidelines on *General Nesting Periods of Migratory Birds in Canada*.

9.6. The Proponent shall submit to the Agency and Environment Canada a draft copy of the plan for review 90 days prior to initiating construction.

9.7. The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to initiating construction. 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 Environment Canada.

9.8. 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 five years of operation.

9.9. The Proponent shall address potential risks of bird collisions with the transmission line, in consultation with Environment Canada, by:

9.9.1. conducting a risk assessment for bird collisions under the current transmission line design;

9.9.2. determining if additional mitigation measures could be implemented to reduce the risk of bird collisions; and

9.9.3. implementing any additional mitigation measures (e.g. line marking and diversions), to minimize impacts.

## **10. Non-wetland migratory bird habitat**

10.1. The Proponent shall mitigate the potential effects of the Designated Project on non-wetland migratory bird habitat.

10.2. The Proponent shall develop, in consultation with Environment Canada, a plan that addresses potential effects of the Designated Project on non-wetland migratory bird habitat.

10.3. The plan shall include:

- 10.3.1. non-wetland migratory bird habitat baseline conditions for habitat that would be permanently lost, habitat that would be fragmented and habitat that would remain intact;
- 10.3.2. migratory bird abundance, distribution and use of non-wetland habitat;
- 10.3.3. measures to mitigate the changes in aquatic and riparian-related food resources and other habitat features associated with a change from a fluvial to a reservoir system;
- 10.3.4. compensation measures to address the unavoidable loss of non-wetland migratory bird habitat, including habitat associated with the Canada Warbler, the Cape May Warbler and the Bay-Breasted Warbler;
- 10.3.5. an analysis of the effects of any compensation measures identified in condition 10.3.4 on the current use of lands and resources for traditional purposes by Aboriginal peoples; and
- 10.3.6. an approach to monitor and evaluate the effectiveness of the mitigation or compensation measures to be implemented and to verify the accuracy of the predictions made during the environmental assessment on non-wetland migratory bird habitat, including migratory bird use of that habitat.

10.4. The Proponent shall submit to the Agency and Environment Canada a draft copy of the plan for review:

- 10.4.1. for conditions 10.3.1, 10.3.2, 10.3.3 and 10.3.6, 90 days prior to initiating construction; and
- 10.4.2. for conditions 10.3.4 and 10.3.5, 90 days prior to implementing any component of the compensation plan.

10.5. The Proponent shall submit to the Agency the final plan:

- 10.5.1. for conditions 10.3.1, 10.3.2, 10.3.3 and 10.3.6, a minimum of 30 days prior to initiating construction; and
- 10.5.2. for conditions 10.3.4 and 10.3.5, a minimum of 30 days prior to implementing any component of the compensation plan.

10.6. When submitting each component of 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 Environment Canada.

10.7. The Proponent shall commence the implementation of the compensation measures specified in condition 10.3.4 no later than five years from the initiation of construction.

10.8. The Proponent shall implement each component of the plan and provide to the Agency an analysis and summary of the implementation of the applicable component of the plan, as well as any amendments made to the plan in response to the results, on an annual basis during construction and at the end of year 1, 2, 3, 5, 10, 15, 20 and 30 of operation.

**11. Wetlands used by migratory birds and for current use of lands and resources for traditional purposes**

11.1. The Proponent shall mitigate the potential effects of the Designated Project on wetland habitat used by migratory birds, species at risk and for current use of lands and resources for traditional purposes by Aboriginal people.

11.2. The Proponent shall develop, in consultation with Environment Canada, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups, a plan that addresses potential effects of the Designated Project on wetland habitat used by migratory birds, species at risk and for current use of lands and resources for traditional purposes.

11.3. The Proponent shall, in developing the plan, describe how the mitigation hierarchy and the objective of no net loss of wetland functions were considered.

11.4. The plan shall include:

11.4.1. baseline data on the biogeochemical, hydrological and ecological functioning of the wetlands and associated riparian habitat in the area affected by the Designated Project, including: ground and surface water quality and quantity; vegetation cover; biotic structure and diversity; migratory bird abundance, density, diversity and use; species at risk abundance, density, diversity and use; and current use of the wetlands for traditional purposes by Aboriginal people, including the plant and wildlife species that support that use;

11.4.2. mitigation measures to maintain baseline wetland functions for those wetlands that will not be permanently lost;

11.4.3. an approach to monitor and evaluate any changes to baseline conditions, as defined in condition 11.4.1 and identify improvements based on monitoring data;

11.4.4. compensation measures to address the unavoidable loss of wetland areas and functions supporting migratory birds, species at risk, and the current use of lands and resources by Aboriginal people in support of the objective of full replacement of wetlands in terms of area and function; and

11.4.5. an analysis of the effects of any compensation measures identified in condition 11.4.4 on the current use of lands and resources for traditional purposes by Aboriginal peoples.

11.5. The Proponent shall submit to the Agency, Environment Canada, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups a draft copy of the plan for review:

11.5.1. for conditions 11.4.1, 11.4.2 and 11.4.3, 90 days prior to initiating construction; and

11.5.2. for conditions 11.4.4 and 11.4.5, 90 days prior to implementing any component of the compensation plan.

11.6. The Proponent shall submit to the Agency the final plan:

11.6.1. for conditions 11.4.1, 11.4.2 and 11.4.3, a minimum of 30 days prior to initiating construction; and

11.6.2. for conditions 11.4.4 and 11.4.5, a minimum of 30 days prior to implementing any component of the compensation plan.

11.7. When submitting each component of 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 Environment Canada, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups.

11.8. The Proponent shall commence the implementation of the compensation measures specified in condition 11.4.4 no later than five years from the initiation of construction.

11.9. The Proponent shall implement each component of 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 at the end of year 1, 2, 3, 5, 10, 15, 20 and 30 of operation.

**12. Health of Aboriginal Peoples – air quality**

12.1. The Proponent shall ensure that Designated Project construction is undertaken in a manner that protects the health of Aboriginal peoples, by ensuring that exceedances of federal and provincial ambient air quality objectives are avoided or minimized and by managing the potential effects of smoke and dustfall.

12.2. The Proponent shall develop, in consultation with Reservoir Area Aboriginal groups, an air quality management plan to ensure exceedances of those ambient air quality objectives

due to Designated Project construction are avoided or minimized at human receptor sites located outside the Project Activity Zone.

12.3. The plan shall include:

- 12.3.1. measures to avoid or minimize exceedances of federal and provincial ambient air quality objectives for Total Suspended Particulates (TSP), Particulate Matter (PM<sub>2.5</sub>, PM<sub>10</sub>), Carbon Monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>) and Sulphur Dioxide (SO<sub>2</sub>);
- 12.3.2. measures to minimize or manage the potential effects of smoke and dustfall;
- 12.3.3. procedures to enable the appropriate authorities to alert sensitive receptor groups and Reservoir Area Aboriginal groups in cases of exceedance of air quality standards and to address those exceedances; and
- 12.3.4. procedures to monitor air quality effects at locations used by Aboriginal groups and to develop mitigation measures if adverse effects are predicted at those locations.

12.4. The Proponent shall submit to the Agency and Reservoir Area Aboriginal groups a draft copy of the plan for review 90 days prior to initiating construction.

12.5. The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to initiating construction. 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 Reservoir Area Aboriginal groups.

12.6. 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 the first year of operation.

12.7. The Proponent shall provide a copy of the same version of its annual reporting on ambient air quality as provided to the Agency and in the same timeframe to Reservoir Area Aboriginal groups and the Métis Nation British Columbia.

### **13. Health of Aboriginal Peoples – methylmercury**

- 13.1. The Proponent shall monitor and make available information on potential increased exposure to methylmercury from the consumption of fish relative to Health Canada's Provisional Tolerable Daily Intake (pTDI) guidelines.
- 13.2. The Proponent shall develop, in consultation with First Nations Health Authority, Northern Health, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups, a methylmercury monitoring plan.

13.3. The methylmercury monitoring plan shall include:

13.3.1. information and analysis regarding consumption of fish by Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups, including:

13.3.1.1. species and size of fish caught for consumption;

13.3.1.2. locations where fish are caught for consumption;

13.3.1.3. consumption of fish by age group and gender;

13.3.1.4. fish meal sizes by age group and gender;

13.3.1.5. fish meal frequency;

13.3.1.6. parts of fish consumed;

13.3.1.7. fish preparation methods; and

13.3.1.8. other relevant consumption information (e.g. events where consumption is higher over a short period of time such as a camping event);

13.3.2. methylmercury levels in representative fish species consumed by Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups measured in the year prior to reservoir filling, informed by data gathered in accordance with condition 13.3.1;

13.3.3. requirements for monitoring the trend and evolution of methylmercury concentrations in fish, informed by data gathered in accordance with conditions 13.3.1 and 13.3.2. Monitoring requirements shall include the following:

13.3.3.1. geographic extent;

13.3.3.2. monitoring parameters;

13.3.3.3. monitoring locations; and

13.3.3.4. monitoring timelines and frequency;

13.3.4. provisions for the continued collection of consumption information and methylmercury levels in fish, and monitoring of the methylmercury trend and evolution in fish in accordance with conditions 13.3.1, 13.3.2 and 13.3.3, as the

composition of fish communities and consumption patterns evolve following the creation of the Site C reservoir;

13.3.5. measures to enable people to limit exposure to methylmercury to avoid risk to human health such as:

13.3.5.1. a detailed communications strategy developed in consultation with Reservoir Area Aboriginal groups, Immediate Downstream Aboriginal groups and government departments and agencies including consumption advisories or other health related bulletin or information, as may be necessary; and

13.3.5.2. a regular update on the status, results, and trends of methylmercury concentrations in fish and the presence of human health risks associated with the consumption of fish from the affected waterbodies;

13.3.6. a description of how Reservoir Area Aboriginal groups, Immediate Downstream Aboriginal groups and the First Nations Health Authority will be involved in the design, implementation and management of the plan as well as the interpretation and communication of results.

13.4. The Proponent shall submit to the Agency, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups a draft copy of the plan for review 90 days prior to reservoir filling.

13.5. The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to reservoir filling. 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 the First Nations Health Authority, Northern Health, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups.

13.6. 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 the first ten years of operation and once every five years after until such time as methylmercury levels in fish populations have stabilized.

13.7. The Proponent shall provide a copy of the same version of its annual reporting on methylmercury levels as provided to the Agency and in the same timeframe to Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups.

**14. Current use of lands and resources for traditional purposes.**

- 14.1. The Proponent shall engage Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups to identify and develop mitigation measures that could address impacts to current use of lands and resources for traditional purposes.
- 14.2. The Proponent shall inform Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups about Designated Project activities that may affect the current use of lands and resources for traditional purposes including harvesting of plants, fish and wildlife and access to land for the purposes of those uses.
- 14.3. The Proponent shall seek the views of Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups on methods to avoid or minimize the use of herbicides and pesticides near locations of plants of importance to those groups.
- 14.4. The Proponent shall report to the Agency on any actions implemented as a result of the activities outlined in conditions 14.1, 14.2 and 14.3 on an annual basis starting immediately prior to construction and for the first five years of operation.

**15. Archaeological and heritage resources**

- 15.1. The Proponent shall ensure that the Designated Project is constructed and operated in a manner that avoids, minimizes or manages impacts to local archaeological and heritage resources.
- 15.2. The Proponent shall develop, in consultation with Reservoir Area Aboriginal groups and the Métis Nation British Columbia, a plan to avoid, minimize or manage impacts to local archaeological and heritage resources.
- 15.3. The plan shall include:
  - 15.3.1. procedures to continue inventories and ground truthing of potential physical and cultural heritage resources to determine the need and applicability of mitigation measures;
  - 15.3.2. measures to address the effects of the Designated Project on the physical and cultural heritage and to structures, sites or things that have been identified as being of historical, archaeological, paleontological or architectural significance by local stakeholders, relevant organizations, Reservoir Area Aboriginal groups and the Métis Nation British Columbia;
  - 15.3.3. procedures to monitor reservoir erosion during occurrences of low reservoir levels, to investigate any potentially new-found sites and to carry out emergency salvage procedures during construction and operation; and

- 15.3.4. procedures to monitor shoreline erosion downstream of the Site C dam for up to 2.5 kilometres during the first two years of operation to determine if physical heritage resources are affected.
- 15.4. The Proponent shall submit to the Agency, Reservoir Area Aboriginal groups and the Métis Nation British Columbia a draft copy of the plan for review 90 days prior to initiating construction.
- 15.5. The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to initiating construction. 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 Reservoir Area Aboriginal groups and the Métis Nation British Columbia.
- 15.6. 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 five years of operation, unless otherwise indicated.

## **16. *Species at risk, at-risk and sensitive ecological communities and rare plants***

- 16.1. The Proponent shall ensure that potential effects of the Designated Project on species at risk, at-risk and sensitive ecological communities and rare plants are addressed and monitored.
- 16.2. The Proponent shall develop, in consultation with Environment Canada, a plan setting out measures to address potential effects of the Designated Project on species at risk, at-risk and sensitive ecological communities and rare plants.
- 16.3. The plan shall include:
  - 16.3.1. field work to verify the modeled results for surveyed species at risk and determine the habitat that would be permanently lost, habitat that would be fragmented and habitat that would remain intact for those species, including the Short-eared Owl, the Western Toad and the Myotis Bat species;
  - 16.3.2. surveys to determine whether the rare plant species potentially facing extirpation in the Project Activity Zone are found elsewhere in the region;
  - 16.3.3. measures to mitigate environmental effects on species at risk and at-risk and sensitive ecological communities and rare plants;

- 16.3.4. conservation measures to ensure the viability of rare plants, such as seed recovery and plant relocation;
- 16.3.5. an approach to avoiding or minimizing the use of herbicides and pesticides in areas that could impact species at risk, at-risk and sensitive ecological communities and rare plants;
- 16.3.6. an approach to monitor and evaluate the effectiveness of mitigation measures and to verify the accuracy of the predictions made during the environmental assessment on species at risk, at-risk and sensitive ecological communities and rare plants; and
- 16.3.7. an approach for tracking updates to the status of listed species identified by the Government of British Columbia, Committee on the Status of Endangered Wildlife in Canada, and the *Species at Risk Act*, and implementation of additional measures, in accordance with species recovery plans, to mitigate effects of the Designated Project on the affected species should the status of a listed species change during the life of the Designated Project.

- 16.4. The Proponent shall submit to the Agency and Environment Canada a draft copy of the plan for review 90 days prior to initiating construction.
- 16.5. The Proponent shall submit to the Agency the final plan a minimum of 30 days prior to initiating construction. 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 Environment Canada.
- 16.6. The Proponent shall implement the plan and provide to the Agency 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 10 years of operation, with the exception of condition 16.3.7 for which reporting will continue for the life of the Designated Project, as appropriate.

## **17. Implementation schedule**

- 17.1. The Proponent shall submit to the Agency an implementation schedule for the conditions within this Decision Statement 90 days prior to initiating construction.
- 17.2. The Proponent shall submit on an annual basis an update to the schedule in writing from the date of the initial submission of the schedule until the commencement of operation of the Designated Project.
- 17.3. The Proponent shall provide the Agency with notice of any implementation schedule changes from the initial schedule or any subsequent updates 90 days prior to the implementation of the change.

## **18. Record keeping**

18.1. The Proponent shall record the following information in respect of any monitoring data collected, sampling conducted, or analyses performed in accordance with this Decision Statement:

18.1.1. the place, date and time of sampling;

18.1.2. the analyses that were performed and the dates they were performed;

18.1.3. the analytical techniques, methods, or procedures used in the analyses;

18.1.4. the names of the persons who collected and analyzed each sample; and

18.1.5. the results of the analyses.

18.2. The Proponent shall retain any monitoring data collected, sampling conducted, or analyses performed in accordance with this Decision Statement for a minimum of twenty-five years and will make any such records available to the Agency on request.