



January 16, 2018

File: 9000038

BC Hydro & Power Authority
c/o Karen von Muehldorfer
6th Floor, 333 Dunsmuir Street
Vancouver BC V6B 5R3

Email: Karen.vonMuehldorfer@bchydro.com

Dear: Karen von Muehldorfer:

Re: Water Licence Application WLA20150505-0002

Enclosed are Conditional Water Licences 133986 and 133987 (the “Licences”) that grant BC Hydro & Power Authority (BC Hydro) the right to construct and operate a temporary and a permanent upstream fish passage facility to mitigate the effects of fish movement associated with the construction of the Site C Clean Energy Project.

Please read the documents carefully. Any error(s) in these documents should be brought to the attention of this office as soon as possible.

Discussion of Licence Conditions

1. CWL 133986 authorizes the construction and operation of the permanent facility for the upstream passage of fish when the powerhouse authorized under CWL 132990 commences operation. The licence for the permanent upstream fish passage facility will expire at the same time as the main water licences for the Site C Project, i.e., CWL 132990 and 132991, which is February 26, 2056.
2. CWL 133987 authorizes the construction and operation of the temporary facility for the upstream passage of fish when the Peace River is diverted for the purpose of constructing the earthfill dam authorized under CWL 132990 and 132991. The licence for the temporary upstream fish passage facility will expire two years after the permanent upstream fish passage facility commences operation. The works of the temporary facility must be removed and the site rehabilitated as directed by the Engineer under the Water Sustainability Act (the “WSA Engineer”). The expectation is that the site will be rehabilitated before the licence expires.



3. The Licences require BC Hydro to retain an Independent Engineer (the "IE") and an Independent Environmental Monitor (the "IEM"). This is the same as the requirement under CWL 132990 and 132991. To provide continuity on the construction site, BC Hydro is requested to retain the same IE and IEM for the Site C project and the upstream fish passage facilities.
4. For the preparation of the information required in clause k) and clause n) and the revision of the OPP as required under clause p) of the Licences, the licensee is requested to seek advice from the Fish and Aquatic Habitat Mitigation and Monitoring Technical Committee (FAHTC) referenced in Schedule A of Conditional Water Licences 132990 and 132991. This FAHTC was formed to provide technical review and recommendations on the sufficiency of the Site C Clean Energy Project Fisheries and Aquatic Habitat Management Plan, the Fisheries and Aquatic Habitat Monitoring and Follow-up Program, and the Fish Passage Management Plan to regulatory agencies.
5. For the preparation of the information required in clause k) and clause n) and the revision of the OPP as required under clause q) of the Licences, the licensee is requested to seek advice from the First Nations who were consulted on the application for the enclosed water licences.
6. The information submitted under clauses k), n) and p) of the Licences will be referred by the WSA Engineer to the FAHTC and the First Nations consulted on the application for the upstream fish passage facilities. The information submitted by BC Hydro and the comments provided by the FAHTC and the First Nations will be considered by the WSA Engineer in decisions regarding the construction and operation of the upstream fish passage facilities.
7. Licence 133986 specifies that the information required by clauses k) and n) be submitted six months before commencing construction and operation of the works, respectively. This time is anticipated to be sufficient to complete the referral and prepare decisions regarding the construction and operation of the works.
8. BC Hydro has indicated that it wishes to construct the temporary upstream fish passage facility within the next six months. For this reason Licence 133987 does not state a time for the submission of the information required by clause k). Nonetheless, the information submitted under clause k) will be referred to the FAHTC and First Nations. The minimum time required for the referral of the information and the preparation of the decisions is estimated at three months. This should be considered by BC Hydro when it is preparing the information and scheduling the construction of the temporary upstream fish passage facility.

9. The First Nations consulted on the application for the upstream fish passage facilities have concerns about the accumulation of methylmercury in the fish living in Site C Reservoir, its tributaries and Peace River downstream of the Site C Project. The First Nations have stated that sampling fish trapped in the facilities for methylmercury may be useful information in relation to the consumption of fish by the First Nations. The sampling of fish for methylmercury is an operational issue, and BC Hydro is requested to address this issue in the manual of operational parameters and procedures.
10. The Licences provide for the release of trapped fish at locations on the Site C Reservoir, on tributaries to the Site C Reservoir or returned to the Peace River downstream of the dam. The Licences authorize ancillary works which include fish release stations and access roads to the fish release stations. The information required under clause k) includes a plan showing the locations of the access roads and the fish release stations, and a description of BC Hydro's tenure to the required land.
11. The water licence application for the fish passage facilities did not include fish release stations and access roads to the stations. Authorizing the stations and roads as works under the water licences is an amendment of the water licence application. The authority for this amendment is in section 14 of the Water Sustainability Act.

Please note the following:

- 1) Water licences do not authorize entry on privately owned land for the construction of works, or flooding. Permission of the affected landowner must be obtained or an easement expropriated. For your protection, permission should be in writing and registered with the appropriate Land Title Office.
- 2) Permission for installing works on lands or roadways which are under the jurisdiction of any government agency, must be obtained from the agency concerned.

Please contact FrontCounter BC to assist you with notifications and any applications required if:

- a) there is any change in your mailing address;
- b) you sell the land to which the licence is appurtenant;
- c) you propose to subdivide the land to which the licence is appurtenant; or
- d) you propose to alter the works authorized under the licence.

In order for you to keep your water licence in good standing, the following must be observed:

- a) continued beneficial use of water, as authorized under your licence;
- b) payment of annual rentals;
- c) compliance with the terms of your licence; and
- d) compliance with the terms of the *Water Sustainability Act*.

One of the obligations of a water licence is the payment of annual rentals and fees to the Crown for the authorization to exercise the rights granted under the licence. Failure to pay water rental invoices by a specified date may result in late-payment penalties, collection action or cancellation of the licence. Any questions in regards to invoices, statements or billing procedures should be directed to the Water Revenue Unit at 1 (800) 361-8866. Callers from the Victoria area should dial (250) 387-9445.

The *Water Sustainability Act* gives the recipient of this notice the right to appeal my decision. Information on filing an appeal can be found on the Environmental Appeal Board Website at: <http://www.eab.gov.bc.ca/>. A right of appeal from my decision lies to the Environmental Appeal Board. Notice of any appeal must (1) be in writing; (2) include grounds for the appeal; (3) be directed by registered mail to the Chair, Environmental Appeal Board, PO Box 9425 Stn Prov Govt., V8W 9V1 or personally delivered to the office of the Board at 4th Floor, 747 Fort Street in Victoria, BC V8W 3E9, eabinfo@gov.bc.ca; (4) be delivered within 30 days of receiving this letter, and (5) be accompanied by a fee of \$25.00, payable to the Minister of Finance.

If you have any questions or concerns, please contact this office.

Yours truly,



Bruce O'Neill, P. Eng.
Deputy Comptroller of Water Rights

Enclosures



Province of British Columbia

Water Sustainability Act

CONDITIONAL WATER LICENCE

The British Columbia Hydro and Power Authority is hereby authorized to divert and use water as follows:

- a) The stream on which the rights are granted is the Peace River.
- b) The point of diversion on the Peace River is denoted by PD191646 and is shown on the attached plan.
- c) The date from which this licence has precedence is May 5, 2015.
- d) The purpose for which this licence is issued is conservation: use of water.
- e) The maximum quantity of water which may be diverted and used under this licence is 15.0 cubic meters per second (m³/s).
- f) The water may be diverted and used throughout the whole year.
- g)
 - 1) This licence is appurtenant to those parts of Section 14, the Fractional SW1/4, Section 14, the NW1/4, Section 14, Section 15, the S1/2 of the NE1/4, Section 15, the NW1/4, Section 15, Fractional Legal Subdivision 15, Section 15, Section 16, the NE1/4, Section 16, Section 22, the SW1/4, Section 22 and the SE1/4, Section 22 all within Township 83, Range 19, West of the 6th Meridian, together with Unsurveyed Crown foreshore or land covered by water being part of the bed of the Peace River, Peace River District. (See Crown Grant Land Application File 8015738.); and
 - 2) This licence is also appurtenant to the permanent upstream fish passage facility located adjacent to the tailrace from the powerhouse authorized under Conditional Water Licence 132990.

- h) The works authorized for the permanent upstream fish passage facility are:
- 1) an intake and wet well;
 - 2) pumps;
 - 3) a fish ladder, including an entrance pool, ladder pools and pre-sort holding pool;
 - 4) a fish lock;
 - 5) fish sorting facilities;
 - 6) fish transport pods;
 - 7) an access road to the facility; and
 - 8) ancillary works associated with the construction and operation of the permanent upstream fish passage facility, which includes fish release stations at locations around the Site C Reservoir and on tributaries to Site C Reservoir, and access roads to the fish release stations located on Crown land.

The components named in items 1) to 8) above are collectively referred to as the “Works”.

The location of the permanent upstream fish passage facility and the access road to the facility must be located approximately as shown on the attached plan.

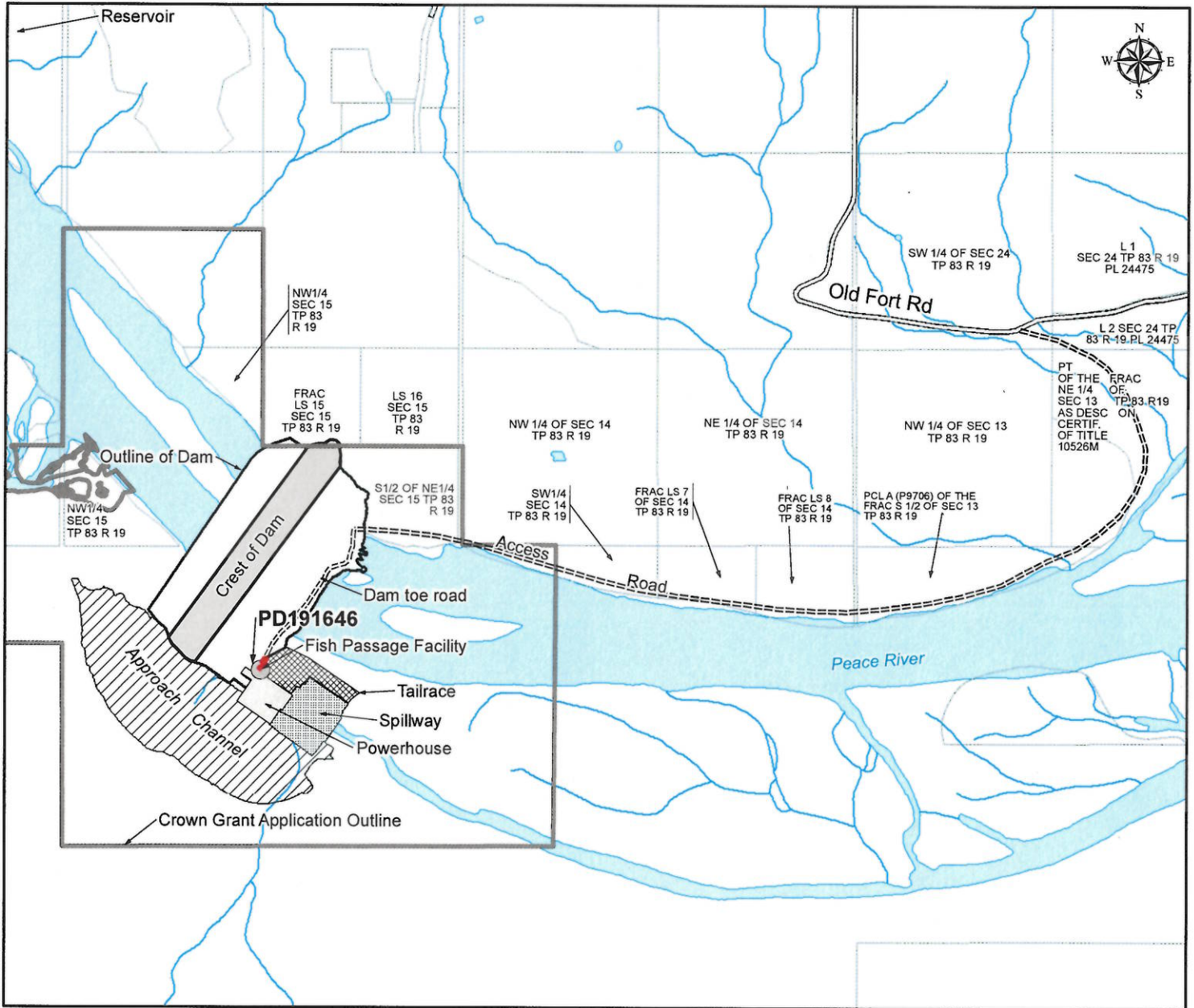
- i) The Works must be in accordance with Environmental Assessment Certificate #E14-02 issued under the Environmental Assessment Act on October 14, 2014; the Decision Statement for the Site C Clean Energy Project issued on October 14, 2014 under the Canadian Environmental Assessment Act; and the Fisheries Act Authorization, Path No.: 15-HPAC-01160 issued on July 27, 2016.
- j) Before commencing construction of the Works, the licensee must to the satisfaction of the Engineer under the Water Sustainability Act (the “WSA Engineer”):
- 1) retain a professional engineer registered in the province of British Columbia (the "Independent Engineer") who will provide services to the WSA Engineer as set out in Attachment A;
 - 2) retain a person with professional qualifications (the "Independent Environmental Monitor") who will provide services to the WSA Engineer by monitoring and reporting on the environmental impacts from the construction of the Works and advising on the conditions in the environmental management plans as set out in Attachment B.
- k) Six months before commencing construction of the Works, the licensee must submit to the WSA Engineer the following:
- 1) plans that show the general arrangement of the Works, including the location of fish release stations around the Site C Reservoir and on tributaries to the Site C Reservoir and the location of access roads to the fish release stations located on Crown land;
 - 2) biological, hydraulic and structural criteria for the design of the Works;
 - 3) a schedule for the construction and operation of the Works; and
 - 4) a construction environmental management plan (the “CEMP”) for the management and mitigation of construction impacts.

- l) Before commencing construction of the Works, the licensee must obtain a Leave to Commence Construction (LCC) from the WSA Engineer.
- m) Before commencing construction of any component of the Works for which a LCC has been issued, the licensee must:
 - 1) ensure that the design drawings for the Works to be constructed are signed and sealed by a professional engineer registered in the province of British Columbia;
 - 2) ensure that a professional engineer registered in the province of British Columbia coordinates the design and field review of the construction of the Works; and
 - 3) receive a copy of a report submitted by the Independent Engineer to the WSA Engineer, which report recommends that the construction of a particular component of the Works may proceed.
- n) Six months before commencing operation of the Works, the licensee must submit to the WSA Engineer the following:
 - 1) a manual of operational parameters and procedures (the “OPP”) for the permanent upstream fish passage facility;
 - 2) an operational environmental management plan (the “OEMP”) for the management and mitigation of operational impacts; and
 - 3) a plan for the measurement of the flow in the Peace River near the dam site and the flow of water diverted from the Peace River under this licence.
- o) Before commencing operation of the Works, the licensee must obtain a Leave to Commence Operation (LCO) from the WSA Engineer, and the licensee must operate the Works in accordance with:
 - 1) an OPP ordered by the WSA Engineer, and
 - 2) any amendment of the OPP ordered by the WSA Engineer.
- p) The OPP must be revised by the licensee by February 1st of each year, which revision incorporates the experience gained from the operation of the facility in previous years.
- q) The fish trapped in the permanent upstream fish passage facility may be returned to the Peace River downstream of the dam, or transported in pods to locations on the Site C Reservoir or to locations on tributaries to the Site C Reservoir in accordance with the OPP.

- r) Construction of the Works must be completed when the works authorized under Conditional Water Licences 132990 and 132991 commence operation. Thereafter, the licensee must continue to make regular and beneficial use of the water in the manner set out in this licence.
- s) The term of this licence is forty years from February 26, 2016, which aligns with the terms of Conditional Water Licences 132990 and 132991.



Bruce O'Neill
Deputy Comptroller of Water Rights



WATER DISTRICT: PEACE RIVER
 PRECINCT: DAWSON CREEK, FORT ST. JOHN
 LAND DISTRICT: PEACE RIVER

Signature: _____

Date: _____

LEGEND:

Scale 1:25,000
 Point of Diversion ●
 Map Number 94A.016



Province of British Columbia

Water Sustainability Act

CONDITIONAL WATER LICENCE

The British Columbia Hydro and Power Authority is hereby authorized to divert and use water as follows:

- a) The stream on which the rights are granted is the Peace River.
- b) The point of diversion on the Peace River is denoted by PD191648 and is shown on the attached plan.
- c) The date from which this licence has precedence is May 5, 2015.
- d) The purpose for which this licence is issued is conservation: use of water.
- e) The maximum quantity of water which may be diverted and used under this licence is 15.0 cubic meters per second (m³/s).
- f) The water may be diverted and used throughout the whole year.
- g)
 - 1) This licence is appurtenant to those parts of Section 14, the Fractional SW1/4, Section 14, the NW1/4, Section 14, Section 15, the S1/2 of the NE1/4, Section 15, the NW1/4, Section 15, Fractional Legal Subdivision 15, Section 15, Section 16, the NE1/4, Section 16, Section 22, the SW1/4, Section 22 and the SE1/4, Section 22 all within Township 83, Range 19, West of the 6th Meridian, together with Unsurveyed Crown foreshore or land covered by water being part of the bed of the Peace River, Peace River District. (See Crown Grant Land Application File 8015738.); and
 - 2) This licence is also appurtenant to the temporary upstream fish passage facility located on the left bank of the channel from the outlet of the diversion tunnels located on the north bank of the Peace River, which tunnels are required for the construction of the dam authorized under Conditional Water Licences 132990 and 132991.

- h) The works authorized for the temporary upstream fish passage facility are:
- 1) an intake and wet well;
 - 2) pumps;
 - 3) a fish ladder, including an entrance pool, ladder pools and pre-sort holding pool;
 - 4) a fish lock;
 - 5) fish sorting facilities;
 - 6) fish transport pods;
 - 7) an access road to the facility; and
 - 8) ancillary works associated with the construction and operation of the temporary upstream fish passage facility, which includes fish release stations at locations around the Site C Reservoir and on tributaries to Site C Reservoir and access roads to the fish release stations located on Crown land.

The components named in items 1) to 8) above are collectively referred to as the “Works”.

The location of the temporary upstream fish passage facility and the access road to the facility must be located approximately as shown on the attached plan.

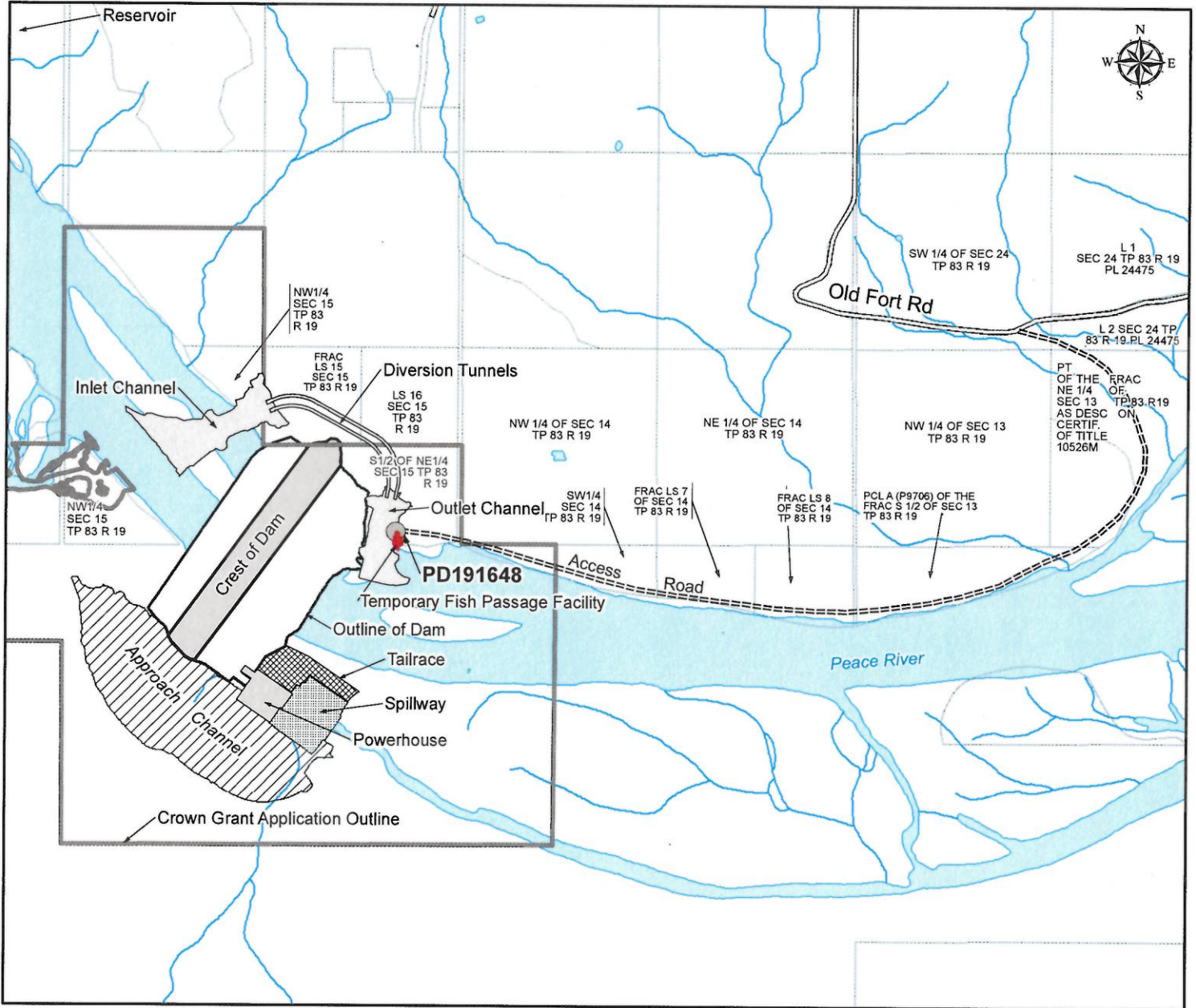
- i) The Works must be in accordance with Environmental Assessment Certificate #E14-02 issued under the Environmental Assessment Act on October 14, 2014; the Decision Statement for the Site C Clean Energy Project issued on October 14, 2014 under the Canadian Environmental Assessment Act; and the Fisheries Act Authorization, Path No.: 15-HPAC-01160 issued on July 27, 2016.
- j) Before commencing construction of the Works, the licensee must to the satisfaction of the Engineer under the Water Sustainability Act (the “WSA Engineer”):
- 1) retain a professional engineer registered in the province of British Columbia (the "Independent Engineer") who will provide services to the WSA Engineer as set out in Attachment A;
 - 2) retain a person with professional qualifications (the "Independent Environmental Monitor") who will provide services to the WSA Engineer by monitoring and reporting on environmental impacts from the construction of Works and advising on the conditions in the environmental management plans as set out in Attachment B.
- k) Before commencing construction of the Works, the licensee must submit to the WSA Engineer the following:
- 1) plans that show the general arrangement of the Works, including the location of fish release stations around the Site C Reservoir and on tributaries to Site C Reservoir and the location of access roads to the fish release stations located on Crown land;
 - 2) biological, hydraulic and structural criteria for the design of the Works;
 - 3) a schedule for the construction and operation of the Works; and
 - 4) a construction environmental management plan (the “CEMP”) for the management and mitigation of construction impacts.

- l) Before commencing construction of the Works, the licensee must obtain a Leave to Commence Construction (LCC) from the WSA Engineer.
- m) Before commencing construction of any component of the Works for which a LCC has been issued, the licensee must:
 - 1) ensure that the design drawings for the Works to be constructed are signed and sealed by a professional engineer registered in the province of British Columbia;
 - 2) ensure that a professional engineer registered in the province of British Columbia coordinates the design and field review of the construction of the Works; and
 - 3) receive a copy of a report submitted by the Independent Engineer to the WSA Engineer, which report recommends that the construction of a particular component of the Works may proceed.
- n) Six months before commencing operation of the Works, the licensee must submit to the WSA Engineer the following:
 - 1) a manual of operational parameters and procedures (the "OPP") for the temporary upstream fish passage facility;
 - 2) an operational environmental management plan (the "OEMP") for the management and mitigation of operational impacts; and
 - 3) a plan for the measurement of the flow in the Peace River near the dam site and the flow of water diverted from the Peace River under this licence.
- o) Before commencing operation of the Works, the licensee must obtain a Leave to Commence Operation (LCO) from the WSA Engineer, and the licensee must operate the Works in accordance with:
 - 1) an OPP as ordered by the WSA Engineer, and
 - 2) any amendment of the OPP as ordered by the WSA Engineer.
- p) The OPP must be revised by the licensee by February 1st of each year, which revision incorporates the experience gained from the operation of the facility in previous years.
- q) The fish trapped in the temporary upstream fish passage facility may be returned to the Peace River downstream of the temporary fish passage facility, or transported in pods to locations on the Site C Reservoir or to locations on tributaries to the Site C Reservoir in accordance with the OPP.

- r) Construction of the Works must be completed when the Peace River is diverted for the purpose of constructing the dam authorized under Conditional Water Licences 132990 and 132991. Thereafter, the licensee must continue to make regular and beneficial use of the water in the manner set out in this licence until the permanent upstream fish passage facility authorized under Conditional Water Licence 133986 commences operation.
- s) This licence expires two years after the commencement of operation of the permanent upstream fish passage facility authorized under Conditional Water Licence 133986.
- t) The Works must be removed and the site rehabilitated as directed by the WSA Engineer.



Bruce O'Neill
Deputy Comptroller of Water Rights



WATER DISTRICT: PEACE RIVER
 PRECINCT: DAWSON CREEK, FORT ST. JOHN
 LAND DISTRICT: PEACE RIVER

Signature: 

Date: Jan 16/18

LEGEND:

Scale 1:25,000
 Point of Diversion 
 Map Number 94A.016