



Province of British Columbia

Water Sustainability Act

CONDITIONAL WATER LICENCE

The holder of a Crown Land Tenure, to which this licence is appurtenant, is hereby authorized to divert, use and store water as follows:

- a) The stream on which the rights are granted is Ramona Lake, and the storage is in Ramona Lake.
- b) The point of diversion on Ramona Lake, denoted by PD81411 and the reservoir being Ramona Lake are located as shown on the attached plan.
- c) The date from which this licence shall have precedence is November 26, 2007.
- d) The purpose for which this licence is issued is power, and the category for the power is general. The power is to be generated with the Ramona Lake Generating System.
- e) The maximum quantity of water which may be diverted, used, and stored under this licence is 1.1 cubic metres per second, and 12,300,000 cubic metres per year, subject to the following:
 1. The licensee shall maintain in Ramona Creek, measured 200 metres downstream of the point of diversion, or at a location as specified in the Operating Parameters and Procedures Report (OPPR), minimum flows as per Schedule "A";
 2. The licensee shall store water in the reservoir in accordance with the Aquatic Effects Assessment (AEA) Operational Flow – Storage Regime (Reservoir Rule), as per Schedule "A"; or
 3. A minimum flow as ordered under clause (o) or (p).
- f) The period of the year during which the water may be used is the whole year.
- g) The land upon which the water is to be used and to which the licence is appurtenant is the land on which the powerhouse of the Ramona Lake Generating System is situated, described as the parcel or tract of land with tenured under the Land Act, held under Lands File No. 2409711.
- h) The works authorized for the Ramona Lake Generating System are:
 1. A lake tap tunnel;
 2. A tunnel;
 3. A penstock;

4. Access road(s);
5. A powerhouse, tailrace and switch yard;
6. 25 kV transmission line from powerhouse to the Narrows Inlet Substation, jointly shared with the Ramona Creek Generating System; and
7. 138 kV transmission line to the Sechelt Peninsula near Ruby Lake Substation, jointly shared with the Ramona Creek Generating System, and the Chickwat Creek Generating System.

which shall be located approximately as shown on the attached plans.

- i) The construction of the said works shall be completed and the water shall be beneficially used prior to **December 31, 2019**. Thereafter, the licensee shall continue to make regular beneficial use of the water in the manner authorized herein.
- j) Before commencing construction of the works authorized under clause (h) of this licence, the licensee must to the satisfaction of the Engineer under the *Water Sustainability Act* (the "Engineer") or the Water Manager:
 1. Retain a Professional Engineer registered in the Province of British Columbia (the "Independent Engineer") who will provide services to the Engineer for the regulation of construction of the works;
 2. Retain a person with professional qualifications (the "Environmental Monitor") who will monitor environmental impacts from the construction of works;
 3. Submit, the following:
 - (a) Plans that show the general arrangement of the works;
 - (b) Criteria for the design of the works;
 - (c) Criteria for the operation of the works;
 - (d) A schedule for the construction of the works;
 - (e) A Construction Environmental Management Plan (CEMP) for the management and mitigation of construction impacts;
 - (f) An Interim Operational Environmental Management Plan (OEMP);
 - (g) Terms of Reference for a Macroinvertebrate Connectivity Study, describing the methodology to be used;
 - (h) a Salamander Study as per Condition 2 of the Environmental Certificate for this project dated October 25, 2016;
 - (i) A Methyl-Mercury Study as per Condition 8 of the Environmental Certificate for this project dated October 25, 2016;
 - (j) Terms of Reference for an Hydraulic Connectivity Plan; and
 - (k) Terms of Reference for a Ramping Study.
 4. Obtain Leave to Commence Construction (LTCC) in writing from the Engineer, or Water Manager.
- k) Before undertaking construction of any component of works for which LTCC issued under (j)(4), 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 (the "Design

- Engineer");
2. Ensure that a professional engineer registered in the province of British Columbia (the "Construction Engineer") supervises the construction of the works;
 3. Ensure that the design, construction and operation of those components are consistent with environmental objectives specified in Schedule "B"; and
 4. Obtain letter from the Independent Engineer that the actual construction of that component work may proceed.
- l) Before commencing the diversion and use of water for commissioning of the works authorized under clause (h) of this licence, the licensee must:
1. Submit an interim functional OPPR for acceptance by the Water Manager for the operation of the works;
 - (a) Include as an appendix, a Report that explains how the operations of the works are based on the Aquatic Effects Assessment (AEA) Operational Flow – Storage Regime (Reservoir Rule);
 - (b) The OPPR must clearly indicate how operational environmental objectives in Schedule "B" will be monitored and achieved;
 - (c) Include as an appendix the final Temperature Adaptive Management Plan, as per clause (m)(1);
 - (d) Include as an appendix the final Turbidity Monitoring Plan and final Turbidity Adaptive Management Plan, as per clause (u).
 2. Submit an Hydraulic Connectivity Plan for acceptance by the Water Manager;
 3. Submit a Ramping Plan for acceptance by the Water Manager;
 4. Submit an Operational Environmental Monitoring plan (OEMP) for acceptance by the Water Manager;
 5. Submit an updated baseline monitoring report. This report must include: all baseline data used to inform the Aquatic Effects Assessment; all supplementary baseline data collected during construction; and any other baseline data, as required as the basis for the OEMP; and
 6. Obtain Leave to Commence Diversion (LTCD) and the use of water, in writing, from the Water Manager.
- m) The licensee must:
1. Submit and implement a Temperature Adaptive Management Plan (TAMP) to the satisfaction of the Water Manager. The TAMP must be suitable to monitor for temperature-related impacts on fish, specify thresholds for adaptive management, and specify adaptive management measures which will be implemented if observed impacts exceed specified thresholds;
 2. Design and submit an Operational Environmental Monitoring Plan (OEMP) for acceptance by the Water Manager. The OEMP must be suitable to determine the nature of any impacts on fish habitat, amphibians (including salamanders), and wildlife, which includes pre-diversion data that allows for statistically supportable quantification of impact to baseline conditions over time to the satisfaction of the Water Manager;
 3. Implement and continue the accepted OEMP program for period specified in the OEMP, following the commencement of operation of the works or to the satisfaction of

- the Water Manager;
4. Submit annual reports summarizing the results of the monitoring program to the Water Manager, within 30 working days of March 31;
 5. At the completion of the monitoring program, prepare a report that identifies the nature of any impacts on fish habitat, amphibians (including salamanders), and wildlife and implement the appropriate mitigation and/or compensation to the satisfaction of the Water Manager; and
 6. If the monitoring in the TAMP or OEMP indicates changes that exceed specified thresholds or that indicate an adverse effect that is unacceptable to the Water Manager, the Water Manager may require the licensee to undertake the following:
 - (a) Submit detailed information or additional studies;
 - (b) Implement an action plan to resolve specific situations; or
 - (c) Prepare and implement mitigation or habitat offsetting plan.
- n) Before commencing operation of the works authorized under clause (h), the licensee must:
1. Submit a report for acceptance by the Water Manager on the OPPR for the operation of the works;
 - (a) The OPPR is to fully and transparently describe the operational flow regime of the project.
 - (b) No modifications to the operational flow regime, and associated OPPR, shall be made unless approved by the Water Manager;
 - (c) Notification of proposed changes must be submitted to the holder of the Water Licence for the Ramona Creek Project (Water File 2002919).
 2. Submit and implement an Operational Environmental Monitoring Plan (OEMP) to the satisfaction of the Water Manager;
 3. Submit the field verification report from the Macroinvertebrate Connectivity Study for acceptance by the Water Manager; and
 4. Obtain Leave to Commence Operations (LTCO) and the use of water, in writing, from the Water Manager.
- o) The diversion of water authorized under this licence may be restricted or prohibited at any time by an Order in writing of an Engineer under the *Water Sustainability Act* or the Water Manager, for the regulation of the diversion, rate of the diversion, and use of the water as may be required for the preservation of fish, wildlife, macroinvertebrates, or navigation.
- p) Based on the results of the Macroinvertebrate Connectivity Study, the Water Manager may require the licensee to:
1. Develop and execute a monitoring plan or specifically to evaluate the potential influence of connectivity changes on invertebrate drift;
 2. Implement pulse flows as per an adaptive management plan, if the magnitude and frequency of connectivity changes result in likely adverse ecological effects on invertebrates and invertebrate drift;
 3. Implement an increase in flows to reduce effects on macroinvertebrate habitat; or
 4. Provide compensation to the satisfaction of the Water Manager.

- q) The licensee must submit a Compensation Plan to compensate for the project impacts to the satisfaction of the Water Manager, and part of this plan may be required to be implemented prior to the Leave to Commence Diversion (LTCD) being issued.
- r) The drawings of record that show the works as they were constructed, must be stored and archived, and shall be provided for review when directed by the Water Manager.
- s) The project development term of this licence expires ten years from the date of issuance of this licence.
- t) The project operational term of this licence is a period of 40 years from the expiry date of the project development term, or the commencement of power production, whichever occurs first.
- u) Within 60 days of issuance of this water license, the licensee must:
 - 1. Submit a draft Turbidity Monitoring Plan and a draft Turbidity Adaptive Management Plan to the Water Manager, and these plans must document how the water quality objectives specified in Schedule "B" will be achieved.



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