



Province of British Columbia

Water Act

CONDITIONAL WATER LICENCE

The owner(s) of the land to which this licence is appurtenant are hereby authorized to divert and use water as follows:

- a) The stream on which the rights are granted is Lorenzetta Creek, tributary of Wahleach Creek.
- b) The point of diversion denoted as PD184764 is on Lorenzetta Creek at an elevation of 700 masl, and is located as shown on the attached plan.
- c) The date from which this licence shall have precedence is February 27, 2012.
- d) The purpose for which this licence is issued is Power (general), which is to be generated with the Lorenzetta Creek Generating Station.
- e) The maximum quantity of water which may be diverted and used under this licence is 0.6 cubic meters per second for Power (general), subject to the following:
 1. An Instream Flow Requirement of 0.062 cubic meters per second at the hydrometric station approximately 25 meters upstream of the tailrace/discharge location must be maintained at all times, consisting of:
 - a) A minimum flow ranging from 0.038 to 0.062 cubic meters per second measured immediately downstream of the point of diversion, adjusted in accordance with the flow measured at the hydrometric station approximately 25 meters upstream of the tailrace/discharge location, as to maintain a minimum flow of 0.062 cubic meters per second at the hydrometric station 25 meters upstream of the tailrace/discharge location; or
 - b) If the hydrometric station 25 meters upstream of the tailrace/discharge location hydrometric station becomes non-communicative with the control system, or inoperable, or the rating curve is unstable, the minimum flow shall be maintained at 0.062 cubic meters per second measured immediately downstream of the point of diversion.
 2. In-stream flows as specified in 1. above, shall be monitored and recorded at all times immediately downstream of the intake and at the hydrometric station approximately 25 meters upstream of the tailrace/discharge location.
 3. Ramping rate must be managed as per default ramping rates of maximum stage change of 2.5 cm/hour when fry are present; and 5.0 cm/hour otherwise, until different rates are

established through Ramping Rate Study and approved by the Regional Water Manager.

- 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 this licence is appurtenant is the land on which the powerhouse of the Lorenzetta Creek Generating System is situated, described as the Legal Subdivision 2, Section 29, Township 4, Range 27, West of the Sixth Meridian, New Westminster District.
- h) The works authorized for the Lorenzetta Creek Generating System are:
 - 1. Diversion structure and intake;
 - 2. Penstock;
 - 3. Access roads;
 - 4. Powerhouse, tailrace and switchyard; and
 - 5. Transmission line.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, 2018. 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 Act (the "Engineer") or the Regional 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 during 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 for the management and mitigation of construction impacts; and
 - 4. Obtain Leave to Commence Construction in writing from the Regional Water Manager.
- k) Before undertaking construction of any component of works for which the Leave to Commence Construction is 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; and
 3. Obtain a letter from the Independent Engineer that the actual construction of that component work may proceed.
- l) Before commencing 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 Operation Plan for acceptance by the Regional Water Manager for the diversion and use of water;
 2. Obtain Leave to Commence Diversion and use of water, in writing, from the Regional Water Manager.
- m) The licensee must:
1. Design and submit an Operational Environmental Monitoring Plan suitable to determine the nature of any impacts on fish and fish habitat, which includes pre-diversion data that allows for statistically supportable quantification of impact to baseline conditions over time to the satisfaction of the Regional Water Manager;
 2. Implement the program including the pre-diversion period and a baseline monitoring report which shall be submitted to the Regional Water Manager within six months of the diversion of water;
 3. Continue the program for five (5) years following the commencement of operation of the works or to the satisfaction of the Regional Water Manager;
 4. Submit annual reports summarizing the results of the monitoring program to the Regional Water Manager, within 30 working days of the date of precedence (February 27) specified in clause (c); and,
 5. At the completion of the monitoring program, prepare a report that identifies the nature of any impacts on fish habitat and wildlife and implement the appropriate mitigation and/or compensation to the satisfaction of the Regional Water Manager.
- n) Before commencing operations of the works authorized under clause (h) for power production, the licensee must:
1. Submit an Operating Parameters and Procedures Report for acceptance by the Regional Water Manager for the operation of the works; and
 2. Obtain Leave to Commence Operations (LCO) of the Lorenzetta Creek Generating System, in writing, from the Regional Water Manager.
- o) The licensee must operate the works in accordance with the procedures ordered by the Regional Water Manager, including any amendment for the regulation of the diversion, rate of diversion and use of water as may be required for the preservation of aquatic habitat, fish, wildlife and navigation.

- p) Based on the results of the Hydraulic Connectivity Study, the Regional Water Manager may require the licensee to:
1. Develop and execute a monitoring plan, in addition to those specified in the OEMP, specifically to evaluate the potential influence of connectivity changes on aquatic values;
 2. Implement pulse flows if the magnitude and frequency of connectivity changes exceed to result in likely adverse ecological effects than as predicted in the Environmental Assessment and subsequent technical memoranda.
- q) The licensee must:
1. Submit a Compensation Plan to compensate the project impacts for approval by the Regional Water Manager prior to the issuance of the Leave to Commence Construction.
 2. The compensation works must be completed to the satisfaction of the Regional Water Manager prior to the issuance of the Leave to Divert and Use of water for commissioning.
- 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 Regional Water Manager.
- s) The term of this licence is 40 years from the date of issuance of this licence.



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