



Province of British Columbia

Water Act

FINAL WATER LICENCE

British Columbia Hydro and Power Authority is hereby authorised to store and use water as follows:

- a) The stream on which the rights are granted is the Elk River, and the reservoir is Elk River Headpond.
- b) The site of the dam creating the Elk River Headpond is PD 23794 located as shown on the attached plan.
- c) The date from which this licence shall have precedence is December 16, 1922.
- d) The purpose for which this licence is issued is storage. Storage purpose supports the power purpose at the Elko Generating Station, authorised under Final Water Licence 120603.
- e) Conditions for the storage of water in Elk River Headpond are as follows:
 - i. The water may be stored in the reservoir between the elevations of 912.18 metres, the minimum operating level for power generation, and 917.17 metres, the full supply level, measured at the dam using Geodetic Survey of Canada (GSC) datum.
 - ii. The volume of water authorized to be stored between the minimum operating level and the full supply level under this licence is estimated to be 600,000 cubic metres.
 - iii. Operation of the flashboards, surcharging the reservoir above full supply level, drafting the reservoir below full supply level and drawdown below the minimum operating elevation shall be done in accordance with the Operation, Maintenance & Surveillance Manual.
- f) Water may be collected into storage, held in storage, and used throughout the whole year.
- g) This licence is appurtenant to the undertaking as set out in clause (g) of Final Water Licence 120603.

- h) The works authorised are a dam and auxiliary works located as shown on the attached plan.
- i) This licence is issued in substitution of Final Water Licence 5646.



Pieter J. Bekker
Deputy Comptroller of Water Rights

File Number: 0242265 Date Issued: *April 29/05* Final Licence 120604



Province of British Columbia

Water Act

Order
Water Act
Section 88

File No. 76975-35/Elko

WHEREAS British Columbia Hydro and Power Authority (BC Hydro) is the operator of the Elko hydroelectric project, in respect of which it holds Final Water Licences 120603 and 120604;

WHEREAS the licensee has submitted the Elko Project Water Use Plan, which recommends minimum flow, ramping rates and changes to the headpond operation at the Elko Project which are intended to benefit fisheries and wildlife habitat with no or minimal effects on other values;

WHEREAS BC Hydro has engaged in public consultation to determine values for system parameters and to develop operating procedures that may provide fisheries and wildlife benefits as described above;

WHEREAS I have accepted the Elko Project Water Use Plan dated April 7, 2005 subject to the deletion of Section 4.4.1 and the substitution of the following Section 4.4.1:

“4.4.1 Elko Dam Minimum Flow

BC Hydro will provide a minimum flow of 0.50 cubic metres per second year round downstream of the Elko dam”;

WHEREAS the Elko Project Water Use Plan proposes a monitoring programme to determine whether operating the works in accordance with the parameters and procedures of the Elko Water Use Plan will provide the above benefits;

I HEREBY ORDER THAT:

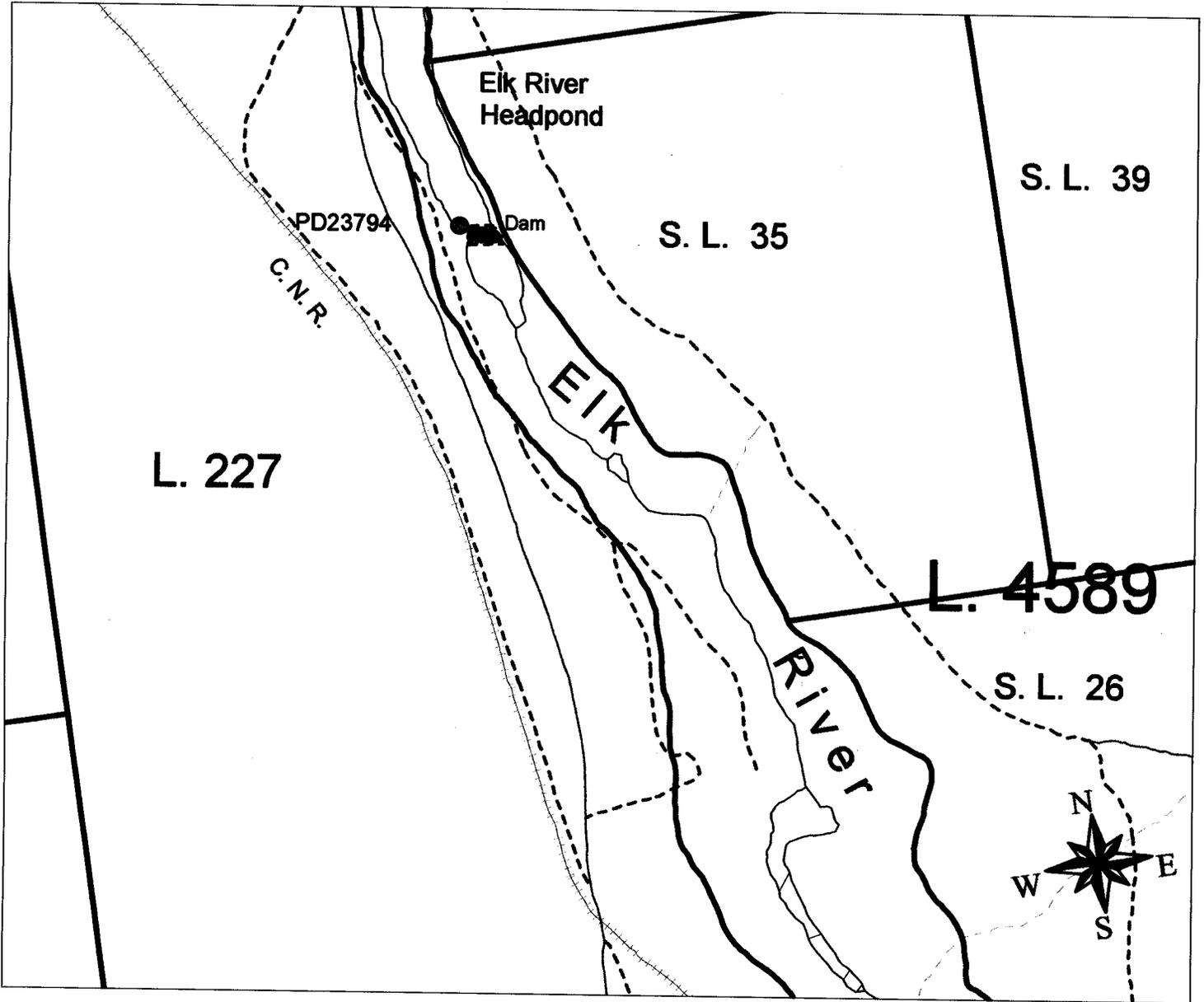
1. The licensee shall release a minimum flow of 0.50 cubic metres per second all year from the Elko dam in order to maintain overwintering fish habitat between the Elko dam and powerhouse.
2. In order to reduce potential fish and egg stranding resulting from a shutdown of the generators, the licensee shall, for planned outages, ramp down the generation units at a maximum rate of 12.5 m³/s per hour when total reduction in discharges will reduce river flow immediately downstream of the generating station by more than 20%.
3. The licensee shall ensure that the maximum rate of change of headpond elevation will be 15 centimetres per hour during drawdowns.

4. The licensee shall investigate the feasibility of reducing the range of daily fluctuation of normal headpond levels to 15 centimetres during the non-freshet period and submit a report on the findings to the Comptroller within one year after the date of this order.
5. The licensee shall submit a monitoring plan for acceptance by the Comptroller within four months of the date of this order, outlining details of monitoring the following:
 - a. Effects of fish survival flow in the canyon below Elko Dam on fish, particularly including periods of sustained cold weather defined as a daytime high of -10°C for five consecutive days
 - b. Effects of headpond drawdown rates on the level of suspended sediments downstream of the dam
 - c. Effects of headpond elevations and drawdown rates on fish stranding
 - d. Effect of headpond operating levels on water infiltration through plugged sinkholes located in the upper headpond side channels.
6. The licensee shall implement the monitoring plan accepted by the Comptroller and shall provide annual monitoring reports to the Comptroller.
7. With respect to the maintenance and provision of records the licensee must:
 - a. Keep records of
 - flow release from Elko Dam
 - Elko generating station discharge and
 - headpond elevations
 - b. Provide a written report to the Comptroller of Water Rights on or before February 1 of each year summarizing the records from the previous calendar year; and
 - c. Provide on request of the Comptroller of Water Rights records collected under 7.a.
8. The licensee may operate the works in an alternate manner in the event of an emergency, dam safety requirement, or an extreme hydrological event.
9. All emergency operations or other deviations from operations ordered above shall be reported to the Comptroller of Water Rights in a timely manner.

Dated at Victoria, B.C., this 20th day of April, 2005.



Pieter Bekker
Deputy Comptroller of Water Rights



WATER DISTRICT:
PRECINCT:
LAND DISTRICT:

FERNIE
ROCK CREEK
KOOTENAY

Signature: *P. B. Chir*
Date: *April 28, 2005*

LEGEND:

Scale:
Point of Diversion:
Map Number:
Permit over Crown Land:

1:10,000
●
WR 1954A
██████████

F.L. 120604
File 0242265
PCL 25248