



Province of British Columbia

Water Act

FINAL WATER LICENCE

- a) British Columbia Hydro and Power Authority is hereby authorised to store water as follows:
- b) The stream on which the rights are granted is Ash River and the reservoir is Elsie Lake.
- c) The site of the dam which creates Elsie Reservoir is located at PD 30269 as shown on the attached plan.
- d) The date from which this licence shall have precedence is June 5, 1956.
- e) The purpose for which this licence is issued is storage. The storage purpose supports the power purpose at the Ash River Generating Station, authorised under Final Water Licence 119975.
- f) The volume of water that may be stored is as described below:
 - 1. The water may be stored in the reservoir between elevations of 315.47 metres, the minimum operating level, and 330.71 metres, the full supply level, measured at the dam using the Geodetic Survey of Canada (GSC) datum. The volume of water authorized to be stored between the minimum operating level and the full supply level is estimated to be 76,476 cubic decametres.
 - 2. Surcharging the reservoir above full supply level, drafting the reservoir to full supply level and drafting the reservoir below the minimum operating level shall be done in accordance with the Operation, Maintenance & Surveillance Manual.
- g) Water may be collected into storage, held in storage, and used throughout the whole year.
- h) This licence is appurtenant to the undertaking as set out in clause (g) of Final Water Licence 119975, Ash River Generating Station.
- i) The works authorised are dams, spillway, sluice gate, low level outlet and reservoir located as shown on the attached plan.

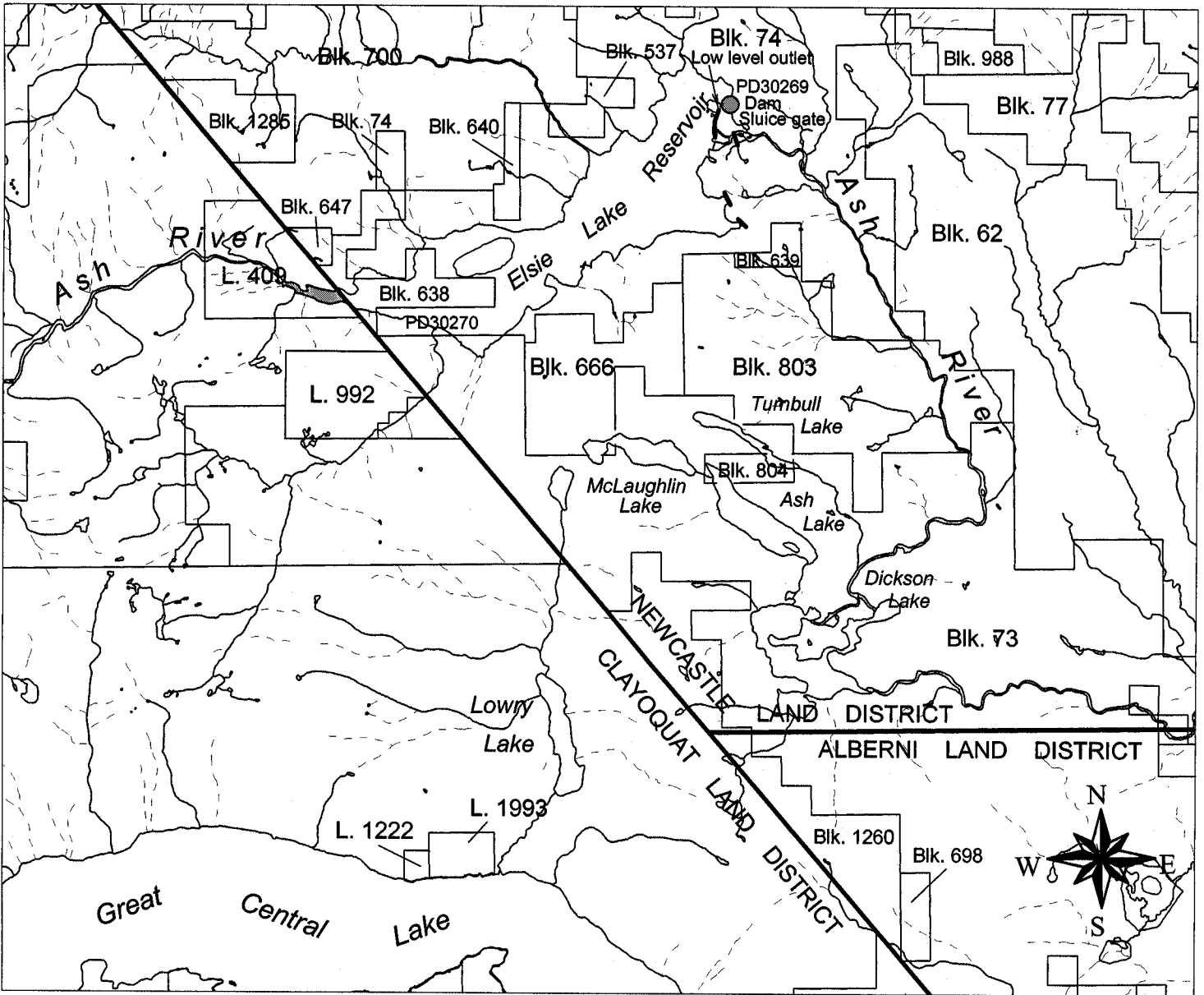
- j) The licensee must operate the works authorized in (i) above in accordance with an order of the Comptroller that:
1. Sets values for the parameters for the minimum release from Elsie Lake Dam into Ash River which is based on the Ash River Water Use Plan dated October 4, 2004;
 2. Requires a monitoring programme to evaluate the effectiveness of the regulation of the works as ordered in (1) above. The monitoring program is to be based on the Ash River Water Use Plan dated October 4, 2004; and
 3. Amends the parameters and procedures ordered in (1) above in consideration of the results of the monitoring programme in (2) above.
- k) This licence is issued in substitution of Conditional Water Licence 23220.



Pieter J. Bekker
Deputy Comptroller of Water Rights

File: 0212196

Date Issued: *Oct. 4, 2004* Final Licence 119976



WATER DISTRICT:
PRECINCT:

ALBERNI
ALBERNI

Signature:

Date:

LEGEND:

- Scale: 1:85,000
- Dam: ●
- Map Number: WR 92F/SW-E
- Pipe: — — — — —
- Permit over Crown Land: ■■■■■■
- Saddle Dams: —

F.L. 119976 for C.L. 23220
 File 0212196
 P.C.L. 25037



Province of British Columbia *Water Act*

Order *Water Act* Section 39

File No. 0212196

WHEREAS British Columbia Hydro and Power Authority (BC Hydro) is the operator of the Ash River hydroelectric system, in respect of which it holds licences FL119975 and FL119976; and

WHEREAS the licensee has submitted the Ash River Project Draft Water Use Plan, which recommends changes to the operations of Ash River hydroelectric system which are intended to provide benefits to fisheries and wildlife habitat with no or minimal effects on recreation and other values; and

WHEREAS I have accepted the Ash River Project Water Use Plan dated October 4, 2004; and

WHEREAS BC Hydro has proposed a monitoring programme to determine whether operating the facility in accordance with the operating parameters and procedures in the Ash Water Use Plan will provide the expected benefits;

I HEREBY ORDER THAT:

1. The licensee shall release minimum flows from Elsie Dam (POD 30269) into Ash River as follows:
 - a) 3.5 cubic metres per second from May 1 to October 31 measured at the dam, and
 - b) 5.0 cubic metres per second from November 1 to April 30 measured at the dam.
2. The licensee shall release such quantities of water from Elsie dam as necessary to provide pulse flows for steelhead passage during August and September, to be measured at the Moran Creek gauge, consistent with a design to be approved by the Comptroller. The total pulse flow

approved for any year shall be up to a maximum of 40 cms-days, the instantaneous rate not to exceed 25 cms.

- When changing flow rates from Elsie Dam into Ash River, the licensee shall ramp the rates up or down according to the following schedule:

Maximum Ramp Up Rate		Maximum Ramp Down Rate	
Discharge (cms)	Rate of Change (cms/h)	Discharge (cms)	Rate of Change (cms/h)
0-2.8	1.1	>30	n/a
2.8-5.7	2.3	30-27	2.5
5.7-8.5	2.8	27-19.8	2.3
8.5-14.2	3.4	19.8-17.0	2.0
14.2-19.8	4.0	17.0-14.2	1.8
19.8-26.9	4.5	14.2-8.5	1.0
27-30	5.1	8.5-5.7	0.9
>30	n/a	5.7-3.5	0.3
		3.5-0	0.2

- 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 steelhead migration before and after the flows described in clause 2.
- The licensee shall implement monitoring in accordance with the monitoring plan accepted by the Comptroller of Water Rights and shall report monitoring results to the Comptroller annually;
- The licensee shall undertake monitoring, in accordance with the *Heritage Conservation Act*, of erosion on archaeological resources, including exposure of artefacts, within the drawdown zone of Elsie Lake Reservoir at the large lithic site DiSh-17 and scattered sites as identified under Permit 2001-266, issued under the *Heritage Conservation Act*.
- The licensee shall prepare reports annually, based on the results of monitoring as required in clause 6 above, which describe the effects, if any, of reservoir operations on archaeological resources within Elsie Lake Reservoir and shall submit copies of those reports to the Comptroller of Water Rights and to the Archaeology and Registry Services Branch.

8. The licensee may operate the works in an alternate manner in the event of an emergency, a dam safety requirement, or an extreme hydrologic event.
9. All emergency operations or other deviations from those ordered above shall be reported to the Comptroller of Water Rights in a timely manner.

Dated at Victoria, B.C., this 4th day of October, 2004.



Pieter J. Bekker
Deputy Comptroller of Water Rights