

**APPENDIX 1 TO ATTACHMENT F, WATER STORAGE/USE PERMIT,
CASE NO. CV-08-526**

Coeur d'Alene Tribe
Department of Lake Management

APPLICATION FOR TRIBAL WATER STORAGE/ USE PERMIT

Under the provisions of Chapter 42 and Section 44-25.01 of the Tribal Code, any person seeking to acquire the right to use waters within the Coeur d'Alene Indian Reservation shall file an application with the Department of Lake Management for a Tribal Water Use Permit to use such waters. The filing of this application does not confirm the water use requested. Water rights previously granted by the State of Idaho prior to April 15, 1999, for the use of waters on the Reservation, are recognized as Tribal water use permits subject to Tribal law but are not exempt from this requirement. Uses of water for domestic purposes are exempt. A filing or processing fee must be submitted with this application. For filing an application for a permit to appropriate the use of Tribal waters on the Reservation, and subject to Section 44-25.01(B) of the Tribal Code, the filing or processing fee shall be \$500.00 payable upon submission of the application.

Notice is hereby given that:

Avista Corporation (formally known as The Washington Water Power Company)
(Name of Applicant)

<u>P.O. Box 3727 Spokane, Washington 99220-3727</u>	<u>509-489-0500</u>
(Mailing Address)	(Telephone No.)

requests a permit for the diversion/storage and beneficial use of surface or ground water within the Coeur d'Alene Indian Reservation. The extent and nature of said permit is as follows:

1. Date the water was first applied to beneficial use:

July 1, 1907 (storage to elevation 2126.5 feet above mean sea level (MSL)
(USGS/Avista datum))

May 1, 1941 (storage between 2126.5 feet and 2128 feet above MSL (USGS/Avista
datum))

On January 16, 2002 Avista Corporation filed with the State of Idaho, two separate "Claim to Water Right" for water storage in Coeur d'Alene Lake and tributaries for power use at the Post Falls Hydroelectric Development (HED) and downstream HEDs- FERC No. 2545. Claim No. 95-9115 is for 164,400 af of storage with a priority date of July 1, 1907. Claim 95-9119 is for 60,600 af with a priority date of May 1, 1941. The priority dates represent the date the water was applied to beneficial use. These claims are on file with the Idaho Department of Water Resources.

2. Describe the source of water: (Name of stream, lake, spring, etc., or ground water)
* which are tributary to

*Source water is located on submerged lands within the Reservation and includes portions of the following:

St. Joe River, St. Maries River, Coeur d'Alene River, and Hepton Lake, tributaries to Coeur d'Alene Lake, and Coeur d'Alene Lake, tributary to the Spokane River,

3. Describe the purpose for which the water will be used and the time during the year when you will use it:
(cfs or af)

(Irrigation, Domestic,
Hydro, Etc.)
(Dates of Use)

Quantity (TBD*) af (July 1, 1907 priority date) Use: storage for power (hydro)
Period of use from 01/01 to 12/31

Quantity (TBD**) af (May 1, 1941 priority date) Use: storage for power (hydro)
Period of use from 01/01 to 12/31

4. (TBD) af storage for power TOTAL QUANTITY REQUESTED.
(cfs or af)

*/**As of 2005, the Tribe estimates that Avista's storage of water above the dams at its Post Falls HED at 2,128 feet above MSL creates a total storage capacity upon submerged lands within the Reservation and upon submerged lands of Coeur d'Alene Lake outside the Reservation ("Total Submerged Lands") of approximately 284,471 acre feet of water. As of 2006, Avista estimates that its storage of water above its Post Falls HED at 2,128 feet above MSL creates a total storage capacity upon such Total Submerged Lands of approximately 266,692 acre feet of water. By this application Avista agrees, if acceptable to the Tribe: (a) that Avista shall work cooperatively with the Tribe during the term of this Permit to apply best scientific approaches mutually agreed upon by Avista and the Tribe to make reasonable calculations of the total volume of water stored above Avista's Post Falls dams at 2,126.5* and 2,128** feet above MSL, respectively, as well as the total volume of water stored on submerged lands within the current Reservation boundaries at those elevations; (b) that Avista and the Tribe shall each pay their respective costs of these cooperative efforts; (c) that pending further cooperative measurement efforts, Avista and the Tribe shall use the mean between their respective existing estimates, or 275,581.5 acre feet, as the best available measurement of storage volume above Avista's Post Falls dams upon the Total Submerged Lands at 2,128 feet above MSL; and (d) that these cooperative efforts shall include the preparation of a map or maps clearly identifying, by section, township, and range, the location of water being stored on submerged lands within the Reservation.

5. A) Location of point of diversion is N/A 1/4 of
1/4 of 1/4 Govt. Lot Sec.
Township Range
County;

Additional points of diversion, if any:

This application is for the right to store waters on submerged lands within the Reservation including Coeur d'Alene Lake, St. Joe River, St. Maries River, Coeur d'Alene River, Hepton Lake and the connected and tributary waters for use in the generation of hydroelectric power at the Post Falls HED and downstream HEDs. The waters are stored with the use of three dams (including the powerhouse) located in Post Falls, Idaho. These dams have heights of 25 feet, 31 feet and 64 feet.

B) Describe means of diversion of water: (pump and pipeline, well, diversion dam, reservoir, length of ditch etc.). Give sizes and capacities. Be specific.

No diversion occurs within the Reservation. The waters to be stored under this application are utilized for the generation of hydroelectric power at the Post Falls HED located on the Spokane River in Idaho and at each of Avista's four downstream HEDs (Upper Falls, Monroe Street, Nine Mile, and Long Lake) located on the Spokane River in Washington. These five HEDs are licensed by the Federal Energy Regulatory Commission ("FERC") as the Spokane River Project, FERC No. 2545. Coeur d'Alene Lake and the connected and tributary waters within the Reservation constitute the reservoir and place of storage of water. From 1907 to 1941, the Post Falls HED was operated with a full pool reservoir elevation of 2126.5 feet above MSL as measured by the USGS gaging station located at the City of Coeur d'Alene, Idaho. (See Idaho claim Nos. 95-9115 and 95-9119 for more detail.) From 1941 to present, the Post Falls HED was operated with a full pool reservoir elevation of 2128.0 feet above MSL as measured by the USGS gaging station in Coeur d'Alene, Idaho.

Following is a summary of operations of the Post Falls HED. This description of current and proposed operations is offered as a reference point only and is not intended to be construed or interpreted to establish or determine any facts regarding Avista's current or proposed operations of the five HEDs comprising the Spokane River Project, FERC No. 2545.

Four decisions drive annual operations at Post Falls HED. These include: (1) when to exercise control over spring flows and, therefore, lake levels; (2) what lake level (and what minimum flow) to maintain and for how long during the summer; (3) when to initiate the fall draft of Coeur d'Alene Lake and at what rate; and (4) when to turn the lake level and river flows over to nature in the winter. Each of these decisions is discussed below.

The hydraulic capacity at Post Falls HED is 5,400 cfs. Streamflows above this level are discharged through the north and/or south channel spill gates. The specific operational requirements reflected in the current FERC license for Post Falls indicate a minimum release of 300 cfs (or inflow, whichever is less) and a full-pool operating limit of elevation 2,128 feet. Operational decisions have evolved over the past 100 years to incorporate concerns for recreation and fishery conditions with the goal of optimizing energy production, all in a setting with wide natural variability in precipitation and streamflows.

Spring. Spring runoff in the Spokane/Coeur d'Alene basin reflects snowpack conditions, active precipitation, and temperatures. At this time of year, the Post Falls Project is not controlling Coeur d'Alene Lake levels or Spokane River flows. Both lake levels and downstream river flows are controlled by the natural channel restriction below the outlet of Coeur d'Alene Lake. Avista initiates control at Post Falls HED once spring runoff flows recede to a practical level, Coeur d'Alene Lake is below elevation 2,128 ft., and diminished streamflows into Coeur d'Alene Lake are forecasted. There are no specific guidelines for determining the date of this control, because it is dynamic and varies widely on an annual basis depending on natural conditions. Typically, this control occurs in late June or early July. This initial control of the discharge at Post Falls HED reduces the outflow and begins filling the nine-mile stretch of the Spokane River between Coeur d'Alene Lake and Post Falls HED.

During this time, consideration is also given to exercising control to preserve Spokane River flows downstream of Post Falls HED in order to protect rainbow trout spawning and accomplish successful emergence of rainbow trout fry. This has been accomplished in recent years through voluntary monitoring and consultation with fisheries agencies in Idaho and Washington. The gradual control of flows and lake levels continues until lake elevations are established at or near 2,128 feet and forecasts indicate that the remaining snowpack will not advance the lake above this level. In most years, as mentioned above, this equalization occurs in late June or early July, and lake levels naturally exceed the summer pool elevation during spring runoff. During some years, especially those with below-average snowpack, Avista exercises control of Coeur d'Alene Lake levels and flows earlier, and the lake can be at or below 2,128 feet leading into the summer season.

Summer. Avista continues to adjust the flow rate at the Post Falls Project throughout the summer recreation season to hold Coeur d'Alene Lake at or near elevation 2,128 feet. This elevation had been established as the summer full-pool elevation prior to Post Falls HED's inclusion in the Spokane River Project, reflecting preferences of the lakeshore community and recreation interests. This operating level also provides storage to enhance generation in the fall. The Project boundary reflects this operating level.

The summer pool elevation is subject to the minimum flow requirement mentioned above. Because calculated inflows can be less than zero, Avista has typically maintained discharges nearer the 300-cfs level. In dry years, to sustain these minimum flows, the lake may be drafted to a small degree during the summer. Subject to this minimum flow, the summer pool elevation is maintained through the majority of the popular recreation season through Labor Day. Proposed changes to this minimum flow are discussed below.

Fall. Normally, the initial release of stored water from Coeur d'Alene Lake begins after Labor Day and prior to mid-September. As a general guideline, the rate of releasing stored water in Coeur d'Alene Lake is 1.5 feet per month through January to a maximum of 7.5 feet below summer elevation (or a lake elevation of 2,120.5 feet). While there are no strict rules or requirements for a drawdown, this approximate drafting schedule has long been established as a matter of practice to balance several interests. These include attempting to optimize generation with the water stored in Coeur d'Alene Lake (by avoiding spilling at the lower-capacity developments downstream), maintaining lake water levels for general navigation, and creating

storage capacity in the lake for fall and winter precipitation, which decreases the potential for upstream flooding.

Avista gradually increases the initial releases from Post Falls HED toward but typically not above the Upper Falls HED's hydraulic capacity of 2,500 cfs during September. By the end of September, forecasted streamflows are used to determine when to increase releases from Coeur d'Alene Lake, although it is not uncommon to maintain the September flow rate through late October, which can be a very dry time of year. Typically, however, by the first of November, flow rates are near the capacity of Monroe Street HED (2,850 cfs), which is the second smallest plant (by hydraulic capacity) on the Spokane River.

Streamflow forecasts are increasingly important to operations in late October and early November. As shown in the historical record, flooding due to precipitation and inflow can occur any month between November and July. During the late fall, weather patterns can change dramatically, causing streamflows into Coeur d'Alene Lake to vary from as low as 500 cfs to more than 10,000 cfs. Because inflows to Coeur d'Alene Lake can exceed the lake's natural outlet capacity, Coeur d'Alene Lake elevations can fluctuate greatly. As a result, the potential for upstream flooding must be taken into account when drafting the lake in the fall. While lake levels can and do frequently exceed the summer pool elevation due to inflows, Avista operates to avoid increasing the impact of any such events (and to operate within the upper elevation of the license requirement). To this end, flows are typically adjusted and maintained to ensure that Coeur d'Alene Lake continues to draft during the fall. In most years, the river flow at Post Falls is held to Nine Mile HED hydraulic capacity or lower (approximately 6,500 cfs). This approach continues to optimize energy generation while attending to the potential for flooding upstream of Coeur d'Alene Lake. If Coeur d'Alene Lake is at least four feet below the summer pool elevation and forecasted streamflows indicate a short duration of increased streamflows, some short-term flow reduction at Post Falls HED may occur to avoid the need to remove flashboards at Nine Mile HED.

Winter. During December, inflows to Coeur d'Alene Lake continue to vary widely due to fluctuating weather patterns. The highest recorded elevations at Coeur d'Alene Lake have occurred in the months of December, January, and February. Rain-on-snow events or extended heavy rain events can occur at any time during this period, causing quick and significant changes in streamflows entering the lake and therefore lake elevations. Decisions for the operation of Post Falls HED are focused on reducing the likelihood of upstream flooding, derived from streamflow forecasts. Near the end of December or first part of January, Post Falls HED is operated to freely pass the flow that is capable of passing through Coeur d'Alene Lake's natural outlet restriction, allowing Coeur d'Alene Lake to seek and achieve its natural level with no influence by the HED. Several terms are used for this operation, including "free flow" or "on channel," which simply mean operating according to the natural channel restriction curve (elevation stage vs. flow) at the outlet of Coeur d'Alene Lake.

Proposed Operations. Proposed future operations described in Avista's FERC license application, as modified by the conditions included in Idaho's June 5, 2009 Final Water Quality Certification, are consistent with current operations. The most significant Post Falls HED change is to increase the minimum flow below the HED to 600 cfs, which would be modified to

500 cfs in dry conditions, as manifested by a decline in the Coeur d'Alene Lake level of more than three inches between July 1 and the Tuesday after Labor Day. The certification also formalizes the aforementioned rainbow trout spawning and fry emergence flow management approach developed in cooperation with fisheries management agencies, and limits the discharge downramping rate at Post Falls HED. Coeur d'Alene Lake's summer elevation will be maintained at or near 2,128 feet, subject to proposed minimum flows or emergency conditions, until the Tuesday after Labor Day on an annual basis.

- C) Height of storage dam See 5 above feet
 Active reservoir capacity: (TBD) af within the Reservation
 Total reservoir capacity: (TBD) af within the Reservation

6. A) Describe the proposed place of use within each 40-acre tract in the appropriate box using the symbols listed below. If the use is for irrigation describe the location by listing the number of irrigated acres within each 40-acre tract.

D - domestic, S - stockwater, M - municipal, C - Commercial, I - Industrial,
 H - hydropower, X - other

Twp	Rge	Sec	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

B) Describe the proposed uses.

See description in 5 above.

7. Remarks:

State of Idaho)
)ss.
County of Benewah)

Be it known that the undersigned, being duly sworn, deposes and says that he, she, they subscribed the forgoing application for water use, together with all attached information, and that the matters and facts therein are true to the best of the affiant's knowledge.

Paul J. Schaefer Director, ENV-AFFAIRS
Applicant's Signature and Title

Sworn to before me this 16 day of December

Paul J. Schaefer

Residing at: Spokane, WA

My commission expires: 4/10/09

