STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION
Change of: purpose of use
WRTS File # CS2-160822CL

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
1895	160822		

NAME
Cascade Water Alliance

ADDRESS/STREET	CITY/STATE	ZIP CODE
11400 SE 8th Street, Suite 440	Bellevue, Washington	98004

PUBLIC WATERS TO BE APPROPRIATED

SOURCE

White River

TRIBUTARY OF (IF SURFACE WATERS)

Puyallup River

MAXIMUM CUBIC FEET PER SECOND (cfs)	MAXIMUM GALLONS PER MINUTE (gpm)	MAXIMUM ACRE FEET PER YEAR (ac-ft/yr)
1,988 cfs		931,281 acre-feet/year

QUANTITY, TYPE OF USE, PERIOD OF USE

Hydroelectric plant – instantaneous maximum diversion (Qi) of 1,988 cfs, and annual quantity (Qa) of 931,281 acre-feet/year, continuously.

Recreational reservoir levels; winter reservoir levels to maintain reservoir; protect and enhance fish and wildlife; maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements –Annual quantity (Qa) not greater than amount necessary for newly authorized uses and not to exceed 931,281 acre-feet/year. Qi and Qa are non-additive with hydropower use. Year-round, as needed. *See* Provisions and Conditions.

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION—WITHDRAWAL

200 feet East and 200 feet South from the North quarter corner of Section 2.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
NE 1/4	2	19 N.	6 E. W.M.	10	Pierce

PARCEL NUMBER	LATITUDE	LONGITUDE	DATUM

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED
[Attachment 1 shows location of the authorized place of use and point(s) of diversion or withdrawal]

Existing impounding structure of Lake Tapps Reservoir in Sections 4, 5, 8, 9, 10, 14, 15, 16, 17, 21, 22, 23, 27 and 28, Township 19 N, Range 5 E.W.M.

DESCRIPTION OF PROPOSED WORKS

See Project Description below.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
Completed	Completed	Completed

PROVISIONS

The Water Right Holder must meet the provisions of this section. These provisions and conditions apply upon approval of change, except as noted in the individual condition. Numbering of the following conditions is consistent with applicable conditions in permit S2-29920(A).

1. Minimum Flow.

The Water Right Holder may divert water from the White River to Lake Tapps Reservoir, subject to the schedule of maximum diversion rates provided below in Condition 2, only if the diversion does not reduce the instream flow of the White River below the Minimum Flow established in Table 1.

Compliance with the Minimum Flows shown in Table 1 shall be measured at U.S. Geological Survey ("USGS") gage 12099200 – White River above Boise Creek at Buckley gage (referred to as the "Buckley Gage"), or other appropriate gage subject to review and approval by the Washington State Department of Ecology ("Ecology") in accordance with Condition 21.

The Water Right Holder may divert up to 20 cfs of water from the headgate and through the fish screens when the flow is below the Minimum Flow, set out in Table 1, due to natural flow conditions.

Table 1. Minimum Flow

Time Period	Minimum Flow	Time Period	Minimum Flow
January 1-14	650 cfs	July 1-23	800 cfs
January 15-31	525 cfs	July 24-31	650 cfs
February 1-14	550 cfs	August 1-6	650 cfs
February 15-29	500 cfs	August 7-31	500 cfs
March 1-14	550 cfs	September 1-14	500 cfs
March 15-31	725 cfs	September 15-30	500 cfs
April 1-14	775 cfs	October 1-14	500 cfs
April 15-30	825 cfs	October 15-31	500 cfs
May 1-14	875 cfs	November 1-14	500 cfs
May 15-31	875 cfs	November 15-30	550 cfs
June 1-14	800 cfs	December 1-14	550 cfs
June 15-30	800 cfs	December 15-31	600 cfs

2. Schedule of Maximum Diversion Rates.

If the instream flow of the White River at the Buckley Gage (or other appropriate gage subject to review and approval by Ecology in accordance with Condition 21) exceeds the Minimum Flow established in Condition 1, then the Water Right Holder may divert water from the White River into Lake Tapps Reservoir in a manner consistent with the following schedule and amounts:

a. Beginning no earlier than February 15, and continuing until Lake Tapps Reservoir is refilled to Normal Full Pool (as defined in Condition 5), or until July 1, whichever is earlier ("Refill Date") water may be diverted from the White River in an amount not to exceed 1000 cfs;

b. Beginning on the Refill Date until September 15 or the subsequent date the Water Right Holder commences drawing down the water level of Lake Tapps Reservoir, whichever is later ("Fall Drawdown Date"), water may be diverted from the White River in an amount not to exceed 400 cfs; and

c. Beginning on the Fall Drawdown Date until February 15 water may be diverted from the White River in an amount not to exceed 150 cfs.

3. Releases From Reservoir.

The Water Right Holder shall limit releases from Lake Tapps Reservoir into the tailrace canal to not more than 50 cfs, except when Lake Tapps Reservoir is being drawn down, in accordance with Condition 2.c above.

4. Ramping Rates.

The diversion from the White River and the release from Lake Tapps Reservoir through the tailrace canal shall at all times be operated so that;

a. The ramping rate does not exceed one inch per hour (increase or decrease) as measured respectively at the Buckley Gage (or other appropriate gage subject to review and approval by Ecology in accordance with Condition 21) and USGS gage 12101100 - Lake Tapps Diversion at Dieringer; and

b. Between February 16 and June 15 of each year downramping shall not be permitted between one hour before sunrise and one hour after sunset.

5. Recreational Lake Levels.

The Water Right Holder shall maintain lake levels in Lake Tapps Reservoir according to the schedule established below. "Normal Full Pool" is defined as a reservoir water level between 541.0 feet and 542.5 feet National Geodetic Vertical Datum 1929 ("NGVD 29") as measured at USGS gage 12101000 – Lake Tapps near Sumner.

a) The Water Right Holder shall maintain Normal Full Pool from April 15 through September 30 of each year until 30 years of the issuance of the permit or Water Right Holder's commencement of the use of Lake Tapps Reservoir for municipal water supply, whichever comes later.

b) Thereafter, the Water Right Holder shall:
   i) Maintain Normal Full Pool from April 15 through September 15; and
   ii) Maintain Normal Full Pool from September 16 through September 30 of each year more than ninety percent (90%) of the time, measured by the number of days (i.e., no more than fifteen (15) days in a rolling ten (10) year period of time) below the lower parameter of the Normal Full Pool, starting with the first calendar year in which lake levels fall below the lower parameter of the Normal Full Pool.

c) The Water Right Holder shall make reasonable efforts to maintain Normal Full Pool through October 31 in all years.

d) Within the above-described time periods, operational variances may be required due to forecasts or

available precipitation, any necessary milfoil control, or the terms and conditions of this authorization or of applicable law.

The schedule of lake levels and the definition of Normal Full Pool may be modified. Water Right Holder shall submit any proposal for modification to Ecology for review and approval in accordance with Condition 21. The proposal shall include documentation that Water Right Holder has completed an appropriate consultation or negotiation process with stakeholders and other interested parties.

8. Streamflow Monitoring

Within two (2) years of the approval of the change, the Water Right Holder shall submit to Ecology a plan to install, operate, maintain, and report from streamflow gages necessary to monitor the minimum flows and staff gages to monitor the ramping rates required by this approval. The plan shall include at a minimum gages at the following locations:

- Canal Diversion
- White River above Boise Creek at Buckley gage (or other appropriate gage subject to review and approval by Ecology in accordance with Condition 21)
- Tailrace Release
- Lake Tapps water surface elevation (on a daily basis)

The plan shall describe the method of collecting and recording the flow and ramping rate data, and include a provision for periodically providing that data to Ecology, Washington Department of Fish and Wildlife ("WDFW"), National Oceanic and Atmospheric Association National Marine Fisheries Service ("NOAA Fisheries"), U.S. Fish and Wildlife Service ("USFWS"), USGS, the Puyallup Tribe of Indians, and Muckleshoot Indian Tribe. The Water Right Holder shall prepare the plan after providing a draft and opportunity to comment to Ecology, WDFW, NOAA Fisheries, USFWS, USGS, the Puyallup Tribe of Indians and Muckleshoot Indian Tribe. The final plan shall be submitted to Ecology for review and approval in accordance with Condition 21. The plan shall be implemented, including installation and operation of all gages, within one year after approval by Ecology.

The Water Right Holder shall use the most accurate gaging equipment and methodology as determined by the USGS. At least every five (5) years, Water Right Holder shall evaluate the adequacy of the stream flow monitoring gages. The Water Right Holder shall maintain the above streamflow gages for the duration of this project.

9. Maintenance of Diversion Canal Fish Screens.

Water Right Holder shall maintain the fish screens in the diversion canal so that they continue to meet or exceed their design specifications for fish passage and all applicable federal or state requirements.

18. Combined Diversion Not to Exceed Limits.

The combined instantaneous diversion of water under this Claim No. 160822 and from the White River for municipal water supply under the associated permit S2-29920(A) shall not exceed the limits established for additional purposes under this change decision in the Claim No. 160822.

19. Trust Water Donation.

No later than two (2) years after this authorization to make use of public water becomes effective, Water Right Holder shall submit to Ecology an application to make a permanent donation of a portion of Claim No. 160822 to the State's Trust Water Program.

20. Emergency Operations.

Permit conditions regarding or affecting operation of Lake Tapps Reservoir and related facilities do not apply and shall be waived to the extent that emergency conditions require or as ordered by a court or by a state or federal agency with jurisdiction. The Water Right Holder shall notify Ecology of any emergency

operations in accordance with Condition 21. Emergency conditions means a temporary circumstance or condition caused by a natural disaster, accident or physical damage, or other extraordinary event that is not avoidable by the exercise of reasonable diligence. Emergency conditions do not include droughts or long term changes in hydrologic conditions.

21. Ecology Review and Approval Process

This provision defines two processes for communicating with Ecology for compliance with the provisions of this water right, including conditions 1, 2, 4, 5, 8, and 20.

1. Notify Ecology

Water Right Holder shall provide notice in writing to Ecology's Southwest Regional Office Water Resources Program Supervisor, or other staff identified by Ecology, and shall ensure that Ecology receives the notice. This provision does not limit Ecology's legal authority to act. This provision applies to the requirement to notify Ecology in Condition 20.

2. Ecology Review and Approval

Water Right Holder shall submit the required information for Ecology's review, comment, and approval. The information shall be submitted in writing to Ecology's Southwest Regional Office Water Resources Program Supervisor, or other staff identified by Ecology, and Water Right Holder shall ensure that Ecology receives the information. Ecology shall review the submitted information and respond to the Water Right Holder in a timely manner. This provision applies to the requirements for review and approval by Ecology in Conditions 1, 2, 4, 5, and 8.

22. Adaptive Management

Based on the analyses conducted to evaluate this water right, Ecology is confident the project can achieve its instream flow, recreational lake level, and municipal water supply objectives on a reliable basis. The conditions of this water right provide the Water Right Holder flexibility to adapt to a wide range of hydrologic conditions and still meet those objectives.

In the event that instream flow, recreational lake level, or municipal water supply objectives are not reliably met, Ecology shall consult with the Water Right Holder to consider the reasons the objectives are not being met and identify possible operational changes in conformity with the conditions of this water right.

If necessary, Ecology may also convene, or direct the Water Right Holder to convene, a process through which input is sought from stakeholders and other interested parties to identify possible operational changes which will result in the achievement of instream flows, recreational lake levels, and municipal water supply on a more reliable basis.

Consideration of operational changes will include, but not be limited to, the adaptive management measures identified in Section 12.3 of the Final Environmental Impact Statement. Additionally, the Water Right Holder will work with other interested parties to secure funding for capital improvement projects if capital improvements are needed to meet the objectives of the project.

FINDINGS OF FACT AND ORDER

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or the public welfare.

Therefore, I ORDER the requested change to purpose of use under Change Application No. CS2-160822CL, subject to existing rights and the provisions specified above.

You have a right to appeal this decision. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within thirty (30) days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours.
- Serve your appeal on the Department of Ecology within thirty (30) days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your Notice of Appeal.
- Serve and file your appeal in paper form; electronic copies are not accepted.

1. To file your appeal with the Pollution Control Hearings Board

Mail appeal to:

The Pollution Control Hearings Board
PO Box 40903
Olympia WA 98504-0903

OR

Deliver your appeal in person to:

On or before September 17:
The Pollution Control Hearings Board
4224 – 6th Ave SE Rowe Six, Bldg 2
Lacey WA 98503

On or after September 20:
The Pollution Control Hearings Board
1111 Israel Rd. SW, Ste 301
Tumwater, WA 98501

2. To serve your appeal on the Department of Ecology

Mail appeal to:

The Department of Ecology
Appeals & Application for Relief Coordinat
P.O. Box 47608
Olympia WA 98504-7608

OR

Deliver your appeal in person to:

The Department of Ecology
Appeals & Application for Relief Coordinator
300 Desmond Dr SE
Lacey WA 98503

3. And send a copy of your appeal to:

Thomas Loranger
Section Manager
Water Resources Program -- Department of Ecology
Southwest Region
P.O. Box 47775
Lacey WA 98504-7775

For additional information visit the Environmental Hearings Office Website: http://www.eho.wa.gov. To find laws and agency rules visit the Washington State Legislature Website: http://www1.leg.wa.gov/CodeReviser .

Signed at Lacey, Washington, this 15th day of Sept. 2010.

Thomas Loranger

Thomas Loranger
Section Manager
Water Resources Program
Southwest Region

INVESTIGATOR'S REPORT

This report concerns change application CS2-160822CL, one of four related water right applications that Puget Sound Energy ("Puget") submitted to the Washington State Department of Ecology ("Ecology") for the same project, known as the "Lake Tapps Reservoir Water Rights and Supply Project" ("Project"). These include three municipal water rights applications for new appropriations (S2-29920, R2-29935, and S2-29934) filed in 2000 and a change/transfer application (CS2-160822CL) filed in 2005 for existing pre-code water right claim number 160822 ("Puget Claim"). These four applications are referred to collectively as the "Applications."

Puget originally filed the Applications. On December 18, 2009, Puget conveyed its interest in the Applications through an asset purchase agreement to Cascade Water Alliance ("Cascade"). Through the Asset Purchase Agreement Cascade also acquired Lake Tapps Reservoir, the Puget Claim, and associated hydroelectric project ("Hydro Project") facilities. Cascade is the current Applicant for the Project. By letter dated December 15, 2009, Ecology accepted the assignment of the Applications from Puget to Cascade (Ecology 2009).

The three municipal water rights applications are necessary for the new consumptive appropriations for municipal supply. Each of the three new municipal applications addresses a component of the Project. The three applications are:

- Application S2-29920 requests authorization to 1) divert water for municipal supply purposes from the White River into Lake Tapps Reservoir for the Project and 2) establish a separate Regional Reserved Water Program for future use by the cities of Auburn, Bonney Lake, Buckley, and Sumner. For clarity, Ecology has issued two separate ROEs corresponding to S2-29920: S2-22920(A) for the diversion from the White River into Lake Tapps Reservoir, and S2-22920(B) for the Regional Reserved Water Program.

- Application R2-29935 requests authorization to store the quantity of water diverted under Application S2-29920 in Lake Tapps Reservoir.

- Application S2-29934 requests authorization to withdraw the annual quantity of water diverted under Application S2-29920 and stored in Lake Tapps Reservoir under Application R2-29935 for municipal supply.

Puget submitted the application for a change in use of the Puget Claim to confirm that it continues to have the right under the Puget Claim to divert and use the water for multiple beneficial purposes, including, but not limited to recreation, reservoir maintenance, fish passage, flow augmentation, and water quality. The application to change the Puget Claim is a significant component of the Project because it confirms that Cascade may continue to use the Puget Claim as it has historically been used.

Table 2 lists the Applications. In addition, Table 2 explains the minor changes from Cascade's original proposal.

Table 2 – Water Rights Applications and Change of Purpose of Use Application

Application No. (Filing Date)	Type	Description of Original Application	Description of Current Proposal
S2-29920[1] (Jun 20, 2000)	Permit for: Diversion from the White River	Quantity: Qa = Maximum Annual Quantity Qa = 72,400 acre-feet/year [equivalent to a 100 cubic feet per second ("cfs") continuous rate] Qi = Maximum Instantaneous Quantity Qi = 2,000 cfs Purpose: Public water supply for consumptive municipal, industrial and commercial purposes.	***Lake Tapps Reservoir Water Rights and Supply Project [S2-29920(A)]:*** Quantity: Qa = 54,300 acre-feet/year (equivalent to a 75 cfs continuous rate) Qi = 1,000 cfs from February 15 until the Refill date or July 1, whichever is earlier; 400 cfs from the Refill date until September 15 or the subsequent date the Fall Drawdown commences, whichever is later; and 150 cfs from the date the Fall Drawdown commences to February 15 per WRMA Purpose: Unchanged from Original Application. ***Regional Reserved Water Program [S2-29920(B)]:*** Quantity: Qa = 5,060 acre-feet/year (equivalent to a 7 cfs continuous rate) Qi = 10 cfs Quantities are additive with Lake Tapps Reservoir Water Rights and Supply Project [S2-29920(A)]. Purpose: Unchanged from Original Application.
R2-29935[1] (Sep 15, 2000)	Permit for: Storage in Lake Tapps Reservoir	Quantity: Storage of up to 46,700 acre-feet of water in Lake Tapps Reservoir Purpose: Public water supply for consumptive municipal, industrial and commercial purposes.	Quantity: Unchanged from Original Application. Purpose: Unchanged from Original Application.
S2-29934[1] (Sep 15, 2000)	Permit for: Withdrawal from Lake Tapps Reservoir	Quantity: Qa = 72,400 acre-feet/year (equivalent to a 100 cfs continuous rate) Qi = 150 cfs Purpose: Public water supply for consumptive municipal, industrial and commercial purposes.	Quantity: Qa = 54,300 acre-feet/year (equivalent to a 75 cfs continuous rate) Qi = 135 cfs Purpose: Unchanged from Original Application
CS2-160822CL (Nov 22, 2005)	Change of: Puget Claim	Quantity: Qa = 1,440,000 acre-feet/year (equivalent to a 2,000 cfs continuous rate) Qi = 2,000 cfs Purpose: Hydropower and other beneficial uses including recreational reservoir levels; winter reservoir levels to maintain reservoir; protect and enhance fish and wildlife; maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements.	Quantity:[2] Qa = 931,281 acre-feet/year (perfected) (equivalent to a 1,286 cfs continuous rate) Qi = 1,988 cfs (perfected) Qi to be diverted from the White River under the changed Claim for non-hydropower purposes would be identical to Qi for S2-29920(A) per WRMA. Purpose: Unchanged from Original Application of Change

[1] The original S2-29934 and R2-29935 applications submitted by Puget erroneously referred to the S2-29920 application as S2-29921.

[2] An application for a temporary donation of a portion of CS2-160822CL into the State Trust Water Rights Program was accepted by Ecology on October 26, 2009.

LEGAL REQUIREMENTS

Public Notice (RCW 90.03.280)

A public notice detailing this proposed change was published on December 16, 23 and 30, 2005 in The News Tribune, a daily newspaper published in Tacoma, Pierce County, Washington.

State Environmental Policy Act (SEPA)

This change involves adding purposes of use for a surface water right over 1 cfs and thus requires compliance with SEPA.

Cascade assumed lead agency status for the environmental review of the Project under SEPA. On June 30, 2008, Cascade published a Determination of Significance and Request for Comments on Scope of Environmental Impact Statement and Environmental Checklist (Cascade 2008a). Cascade published a Draft Environmental Impact Statement ("DEIS") on January 29, 2010 (Cascade 2010a). The comment period for the Draft Environmental Impact Statement ("DEIS") was extended from January 29, 2010 until May 21, 2010, providing an overlapping comment period with the Draft ROEs. The Final Environmental Impact Statement ("FEIS") was published on June 16, 2010 (Cascade 2010c).

The FEIS reviewed potential impacts to earth, surface water quantity and quality, groundwater, plants and wildlife, fisheries, recreation and aesthetics, shoreline use and land use, as well as the impacts of climate change on the proposal. The FEIS concludes that the Project would have no significant adverse impacts.

Additional detail about SEPA review is provided in the 2010 ROE for S2-29920(A).

Determinations

Chapter 90.03 RCW authorizes the appropriation of public water for beneficial use and describe the process for obtaining water rights including the process to amend or change existing rights. Laws specifically governing the water right permitting process are RCW 90.03.250 through 90.03.340. Changes or amendments to these rights are covered under RCW 90.03.380 and RCW 90.44.100.

Changes to surface water rights require Ecology to address the following factors:

- What is the extent and validity of the existing right?
- Will the change cause impairment to other existing rights?

BACKGROUND

Lake Tapps Reservoir was historically used for Puget's Hydro Project and more recently has been maintained for recreation. Under the authority of a vested surface water claim, water is diverted from the White River near the City of Buckley, conveyed to the reservoir through a flowline consisting of a series of channels and settling basins, and used to generate hydropower. Approximately 20 cfs of the water is diverted from the flowline through a fish screen that prevents fish migrating downstream from entering Lake Tapps. Water (and fish) diverted at the fish screen are returned to the White River several miles downstream of the diversion dam. All other water, except for small amounts of leakage and evaporation, is ultimately returned to the Lower White River upstream from the City of Sumner.

On June 30, 2003, Ecology approved the three municipal water rights applications for new appropriations (S2-29920, R2-29935, and S2-29934) to Puget for the purpose of diverting water from the White River, storing it in Lake Tapps Reservoir, and withdrawing it for municipal and public water supply. The decisions were appealed to the Pollutions Control Hearings Board ("PCHB") by the cities of Buckley, Auburn, Algona and Pacific, and by the Muckleshoot Indian Tribe and the Puyallup Tribe of Indians.

In fall 2003, Puget withdrew its application for a Federal Energy Regulatory Commission ("FERC") issued hydropower license, having determined that the Hydro Project would not continue to be cost effective given the environmental considerations associated with obtaining a license for the project. By January 2004, hydropower production had ceased. In August 2004, the PCHB remanded the water right decisions back to Ecology to revise its decision in light of the cessation of the Hydro Project.

On November 22, 2005, Puget submitted the subject application for a change of purpose of use of the Puget Claim to add additional purposes of use to conform the claim document to the historical uses of water over the past century and to continue to allow diversions for continuing recreation, reservoir maintenance, and water quality in the lake.

On December 18, 2009, Puget conveyed its interest in the Claim and the pending change application through an asset purchase agreement to Cascade. Cascade is the current Applicant for the Project.

The change application is being processed in conjunction with the three applications for new water rights.

Existing Infrastructure

Lake Tapps Reservoir, completed in 1911, is located in Pierce County, Washington, approximately 25 miles southeast of Seattle and was a key component of the Hydro Project. The Hydro Project consists of a diversion dam located on the White River at the town of Buckley, an 8-mile flowline, an off-channel storage reservoir (Lake Tapps Reservoir) and a powerhouse and tailrace canal that enters the White River below Auburn. Although hydropower generation has ceased, these facilities remain and continue to be used to operate Lake Tapps Reservoir. A description of the existing infrastructure, based on Technical Memorandum 1 (HDR 2002), is presented in the following sections, proceeding from upstream to downstream (diversion dam to tailrace).

1. Diversion Dam and Intake

The diversion dam is located in the City of Buckley. It is an 11-foot-high structure consisting of a 4-foot-high concrete and rock filled timber crib dam 352 feet long, with 7-foot-high flashboards on top of

the crib. The spillway extends the entire length of the dam. The flashboard system normally raises the water level 7 feet above the timber crib structure to elevation 671 feet. The flashboards are periodically lost in flooding events. Concrete wing walls flanking the dam protect the riverbanks. The concrete intake located just upstream of the dam on the left bank of the White River contains two Stony Gates, each 13 feet high by 15.5 feet wide.

The dam is essential to preventing upstream migrating salmon from moving upstream past the dam and becoming stranded below Mud Mountain Dam. Fish are collected in the U.S. Army Corps of Engineers ("USACE") trap and haul facility located on the left bank just downstream of the dam. The trap and haul facility is operated by USACE in conjunction with Mud Mountain Dam. In addition, under a 1948 Agreement, Cascade provides 25 to 110 cfs to the USACE for operation of the Buckley fish trap and haul facility, which is located downstream of and immediately adjacent to the White River diversion dam and intake structures.

2. Flowline

The 8-mile-long diversion flowline consists of a series of flumes and canals lined with wood, concrete, or earth; five settling basins; and two 10-foot-diameter pipelines.

a. **Flumes.** A concrete and wood flume conveys water from the headworks to the sedimentation basins over a distance of approximately 5,000 feet with a gradient of 7 feet per mile. The concrete portion of the flume was constructed in 1986 and runs for approximately 1,700 feet between the headworks and the wood-lined canal. Two rock chutes are located in this section for removal of entrained rocks and gravels. The flume transitions from concrete to a wood lining for the remaining 3,300 feet. The wood flume is approximately 28 feet wide and 9 feet high with an approximate capacity of 2,000 cfs.

b. **Sedimentation Basins and Dikes.** Diverted flows are conveyed via the flume to a series of four sedimentation basins (from upstream to downstream: Wolslegal, Wickersham, McHugh, and Dingle Basins). Two of the sedimentation basins, Wolslegal and Dingle Basins, are currently in use.

   The earthen flowline dikes were constructed around 1910 to 1912. The dike adjacent to Wolslegal and Wickersham Basins is approximately 2,500 feet long and is oriented roughly east-west. The dike adjacent to McHugh Basin is approximately 1,400 feet long and oriented roughly southeasterly. The flowline dikes are located at the top of a steep bluff slope approximately 100 feet above the floor of the White River valley.

c. **Fish Screen and Unlined Canal.** Rotating drum screens were originally installed in the flowline in 1939 near Dingle Basin. A new vee-screen facility was installed in 1996. Most of the water flows through the legs of the vee into the flowline leading to Lake Tapps. Fish are channeled to the bottom of the vee, and conveyed back to the White River in a 30-inch-diameter high density polyethylene pipe. A flow of 20 cfs is diverted from the flowline to convey fish back to the White River.

d. **Unlined Canal and Twin Pipeline.** Downstream of the fish screen an unlined canal conveys flow approximately 6,800 feet to the new concrete intake structure and twin buried pipelines. The canal has a gradient of approximately 1 foot/mile. Flow transitions from an unlined canal to a concrete-lined approach canal with a trapezoidal cross-section over a distance of 1,100 feet

where it enters the intake structure for a once-planned 12-megawatt powerhouse along the flowline.

Flow is conveyed from the intake to the valve house upstream of Printz Basin via twin buried pipelines over a distance of approximately 10,600 feet. Each pipeline has a diameter of 10 feet with a gradient over much of its length of approximately 0.003.

d. **Printz Basin and Backflow Prevention Structure.** Printz Basin is located between the buried pipelines and Lake Tapps Reservoir and was constructed as the final sedimentation basin in the flowline. It is no longer maintained or used as a sedimentation basin. Recent construction of a backflow prevention structure near Printz Basin has limited the capacity of the flowline to about 1,000 cfs.

3. Lake Tapps Reservoir and Saddle Dikes

The Lake Tapps Reservoir is impounded by a series of 13 dikes ranging in length from a few hundred to a few thousand feet, and from a height of a few feet up to 48 feet. The reservoir, once a series of four small lakes (Lake Tapps, Lake Kirtley, Crawford Lake, and Church Lake), was created by the construction of the dikes and the diversion of water from the White River into the reservoir. Lake Tapps Reservoir is approximately 4.5 miles long and 2.5 miles wide. Lake Tapps has a surface area of 2,740 acres and active storage capacity of 46,700 acre-feet. Water surface elevations can range from a normal maximum of 542.5 feet National Geodetic Vertical Datum 1929 ("NGVD 29") to a minimum of 515 feet, which corresponds with the bottom of the outlet works.

4. Lake Tapps Reservoir Outlet and Powerhouse

The main outlet from Lake Tapps is the 12-foot-diameter concrete tunnel located on the northwest shore of the reservoir. The tunnel is 2,842 feet long and leads to the forebay, penstocks, and ultimately the powerhouse associated with the former Hydro Project. The tunnel entrance is controlled by a Stony Gate 12.5 feet high by 12 feet wide. A 24-inch-square Stony bypass gate is provided in the face of the main gate for filling the tunnel.

The penstock forebay, 30 feet in diameter and 73 feet deep, is located at the brow of the hill above the powerhouse. A collection basin is provided at the top of the forebay well to accept surges. At the base of the forebay three penstocks convey flows down the hill to the powerhouse. Each penstock is separately gated to control flows. The penstocks are no longer used to generate hydropower and one of the penstocks has been modified to control releases from the reservoir.

The existing outlet work leak water into the tailrace at an estimated rate of 36 cfs (Aspect 2010). As a component of the Project, Cascade would modify the outlet works to reduce leakage.

5. Tailrace

After water is released from Lake Tapps it flows through an un-lined, 34-foot-wide, 0.5-mile-long tailrace canal into the White River.

Attributes of the Claim and Proposed Change

Surface Water Claim 160822 was filed in June 1974 for the amount of 2,000 cfs (Qi) and 1,440,000 acre-feet per year (Qa) from the White River at Puget's diversion dam near RM 24. The purpose of use for the existing water right claim is hydropower.

On November 22, 2005, Puget submitted an *Application for Change of Water Right* to add multiple purposes of use to Surface Water Claim 160822. The application to change will add or otherwise confirm water use under the water right claim for reservoir level maintenance, protection and enhancement of fish and wildlife habitat, and maintenance of water quality for recreational purposes in the reservoir.

Relationship of Existing and New Rights

Cascade would continue to use the Puget Claim in parallel with the new municipal water rights. The Puget Claim would be used to provide the multiple beneficial purposes in this application for change. The new water rights would be used solely for municipal water supply. The new and existing rights to divert water from the White River would not be additive in that the combined diversion would be limited according to the Provisions and Conditions of the 2010 Report of Examination for S2-29920(A).

Cost Reimbursement

This application has been processed by Aspect Consulting, LLC under Expert Agreement with the Washington State Office of the Attorney General.

INVESTIGATION

The investigation for this application included, but was not limited to research and/or review of: Washington State Water Code, SEPA requirements, records of other water rights in the vicinity and a site visit to the diversion dam on June 25, 2007.

History of Water Use

Cascade owns and operates Lake Tapps Reservoir, located on the south side of the White River in Pierce County, Washington, between River Miles ("RM") 24.3 and 3.6. The project site is located within the Puyallup-White River Watershed, Water Resource Inventory Area (WRIA) 10.

Prior to Cascade's ownership, Puget historically diverted water from the White River and impounded it in Lake Tapps Reservoir for hydropower production. The water right for hydropower is evidenced by claims filed in 1895 and 1901. In 1974 Puget filed Claim No. 160822 with the State under chapter 90.14 RCW confirming Puget's interest to protect and use the water right for 2,000 cfs and 1,440,000 acre-feet/year.

Puget's water right for the Hydro Project is based upon claims dating back to 1895. Under the claims, Puget diverted up to 2,000 cfs from the White River for non-consumptive hydropower production. Pacific Coast Power Company, a predecessor to Puget, bought up or condemned the existing riparian rights on the White River in the early 1900s. Pierce County Superior Court Decree condemned the property rights of the riparian owners and required 30 cfs be left in the channel. *Pacific Coast Power Co. v. Quilquilion,* Pierce County Superior Court No. 28120 (April 13, 1910).

Historical use of the Puget Claim was evaluated by examining streamflow records from U.S. Geological Survey ("USGS") Gage 12099000 – White River Canal near Buckley. These gaging records indicate that as early as October 23, 1918, daily average flows in the flume leading from the White River diversion dam to Lake Tapps had reached 1,930 cfs. Daily average diversions first reached 2,000 cfs on November 19, 1924. The fourth and final turbine generator was added to the White River powerhouse in 1924, which enabled the full 2,000 cfs to be released from Lake Tapps and used for generation at the powerhouse. On June 22, 1925, peak generation at the powerhouse reached 64,000 kilowatt, which corresponds to a generation flow of 2,000 cfs based on existing head and machine characteristics at the time. Starting in 1929, Puget paid the annual water power tax based on the 2,000 cfs water right claim and documented usage.

Claim number 160822 indicates that the annual quantity of water claimed is 1,440,000 acre-feet per year. This volume could only be diverted if the diversion dam operated continuously at a constant rate of 2,000 cfs. Canal gage records indicate that the maximum annual quantity diverted by Puget was 931,281 acre-feet (equivalent to an average diversion of 1286.4 cfs) from January 1 to December 31, 1959.

Historically, Puget managed water surface elevations of Lake Tapps Reservoir to meet essential goals of power production, recreational lake levels, maintenance, and control of aquatic plant growth. Since Puget ceased generating electricity in 2004, Puget continued to divert water from the White River and manage lake water levels to maintain water quality, control growth of nuisance aquatic vegetation, and maintain recreational levels. Puget varied the amount of water in the reservoir by season, resulting in a yearly pattern of "pool" elevations:

- Spring Refill. The late winter or early spring refill of the reservoir to the Normal Full Pool elevation.

- Normal Full Pool. A water surface elevation of between 541.0 and 542.5 feet with respect to the NGVD 29[3].

- Fall Drawdown. The reduction of water level in the fall to help control aquatic vegetation growth and to allow dike maintenance.

Recreational Use of Lake Tapps

The history of the development of the Lake Tapps community and its relationship to Lake Tapps Reservoir dates back to the 1950s. Prior to 1954, the Lake Tapps area remained mostly rural. In 1954, Puget sold the land surrounding the reservoir to the Lake Tapps Development Company, and the character of the area began a transition to residential use. Puget granted title to the land surrounding Lake Tapps Reservoir above a contour line located at elevation 545 feet above sea level, but reserved the right to maintain utility lines and use of roads for access to the reservoir over the conveyed lands. Puget did not convey title to the bed of Lake Tapps Reservoir or to any land up to the 545-foot contour line, and reserved the right to raise the water within the reservoir and to dredge the reservoir bottom. Puget also granted the Development Company right to use Lake Tapps Reservoir for recreation and to allow other limited actions and activities as long as those activities and actions would not impact Puget's full use of the water of the reservoir for its operation.

Currently, private residences and public and private parks surround most of the reservoir. According the *Lake Tapps Boat Management Plan*, by 1998 over 95% of the platted properties around the reservoir contained a residence (Pierce County 2005). The reservoir encompasses approximately 2,740 surface acres at Normal Full Pool. The reservoir's shape is extremely irregular and there are numerous islands, creating approximately 57.5 miles of shoreline. The reservoir bottom is riddled with tree stumps and snags. The east side of the reservoir contains a higher concentration of shallow areas and visible boating hazards. The eastern shoreline is less intensely developed due to the presence of dikes and public roads adjacent to the reservoir edge.

Lake Tapps Reservoir offer many recreational opportunities, such as boating, water skiing, fishing, and swimming. Lake Tapps Reservoir is heavily used by motorized and non-motorized watercraft, and facilities along its shoreline (such as parks, docks, water slides, and entertainment gathering areas) provide various forms of water-related outdoor recreation. Lake Tapps Reservoir is also used for fishing for warm water fish species that are not as common elsewhere in Washington's lakes.

Many waterfront homes and some public and private parks have boat launch facilities and docks. An informal survey conducted in 2003 for preparation of the *Lake Tapps Boat Management Plan* identified 1,620 docks, 180 boat ramps, 2 planes, and a total of 2,604 boats including power boats, non-motorized boats, and personal watercraft (e.g., jet skis).

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[3] The water surface elevation in Lake Tapps is recorded at USGS gage 12101000 – Lake Tapps near Sumner. This gage reports both stage (the direct reading of the stage gage) and water surface elevation with respect to the NGVD 29. Prior to a 2009 survey by Cascade, an incorrect relationship was used to translate observed stages to NGVD 29 elevations. In an independent survey, the USGS confirmed that NGVD 29 is 0.5 feet lower than the measured stage. The USGS has corrected its published records.

There are several points of access for the general public. Boat launch facilities located on the north end at the Lake Tapps North Park and on the south end at Allan Yorke Park are available for a fee. Pierce County and the City of Bonney Lake own the public parks, and the Tapps Island Homeowners' Association owns a public golf course. There are also two types of private parks; Puget owns and operates a private park for its employees, and the individual residential communities around the lake typically have private parks maintained by their homeowner's associations.

Both Puget and Cascade have entered into agreements with groups representing the Lake Tapps community to support recreational and community interests in Lake Tapps: the "2004 Community Agreement" between Puget and groups representing the Lake Tapps community; and the "2009 Community Agreement" between Cascade and the Lake Tapps Community (Cascade 2009).

According to the 2004 Community Agreement, Puget agreed to maintain a Normal Full Pool water elevation (541.0 to 542.5 feet NGVD 29) during the Annual Recreational Period (defined in this agreement as the period from April 15 through October 31) subject to specified operational variations. Such operational variations may be required due to forecasts of available precipitation, the terms and conditions of the water right, any necessary milfoil control, FERC requirements, or the terms and conditions of applicable law.

In the 2009 Community Agreement, Cascade committed to meeting specified reservoir surface elevations. Prior to the use of Lake Tapps Reservoir for municipal water supply, Cascade agreed to maintain Normal Full Pool from April 15 to September 30. After commencement of the use of Lake Tapps Reservoir for municipal water supply, that obligation is altered so that from September 16 through September 30, Normal Full Pool would be maintained 90% of the time, measured by the number of days (i.e., no more than 15 days in a rolling 10-year period of time). From October 1 through October 31, Cascade will make "reasonable efforts" to maintain Normal Full Pool.

Cascade accepted assignment of the 2004 Community Agreement. However, the 2009 Community Agreement will replace the 2004 Community Agreement following acceptance by both the Lake Tapps Community Council and Cascade of the revised ROEs issued by Ecology.

Cascade's obligations under the 2009 Community Agreement are to be implemented with the following priority of interests for use of White River flows: (1) provision of minimum flows in the White River; (2) provision of recreational reservoir surface elevations; and (3) provision of municipal water supply. According to this prioritization system, recreation is not the highest priority. Thus, there is no guarantee that the elevation would be maintained at Normal Full Pool for the entire Annual Recreation Period.

Minimum Flow Requirements

Minimum instream flows in the White and Puyallup River watershed have been established by Ecology pursuant to its authority to establish rules governing the minimum instream flows. In 1980, Ecology adopted by rulemaking an Instream Resources Protection Program for the White and Puyallup River watershed in chapter 173-510 WAC , with WAC 173-510-030(4) describing the minimum instream flows for the Puyallup River. At this same time, Ecology closed the White River to further consumptive water right appropriations, WAC 173-510-040(3), but did not establish minimum instream flows for the White River, as was done for the Puyallup River. Moreover, because the priority date of Puget Claim

predates the instream flow rule, the Hydro Project was not required to comply with the flows established in the rule for the Lower Puyallup River.

Historically, there were four other sources of stream flow requirements for the White River. First, in 1910, Pierce County Superior Court and King County Superior Court issued decrees vesting rights to 2,000 cfs that required the Pacific Coast Power Company to maintain instream flows of at least 30 cfs below the diversion dam.

Second, in 1986 a settlement agreement between Puget and the Muckleshoot Indian Tribe established a minimum instream flow for the Reservation Reach of 130 cfs and a 3,650 second-foot-day water budget for fish transport. The settlement also included a supplemental flow budget of 3,650 second foot-days or about 7,240 acre-feet annually.

Third, several agencies recommended minimum flows that would be imposed through the FERC relicensing process for the Hydro Project pursuant to section 10(j) of the Federal Power Act.

Fourth, a 2005 letter from the National Oceanic and Atmospheric Administration National Marine Fisheries Service ("NOAA Fisheries") addressed to the U.S. Army Corp of Engineers ("USACE") proposed instream flows for Puget's operation of the Hydro Project. The proposed flows were developed for the U.S. Geological Survey ("USGS") White River above Boise Creek at Buckley gage. These flows were later incorporated into an Interim Operating Agreement between USACE and Puget.

Most recently, Cascade has agreed to minimum flows pursuant to the White River Management Agreement ("WRMA") between The Puyallup Tribe of Indians, The Muckleshoot Indian Tribe and Cascade Water Alliance (Cascade 2008b). The WRMA addresses many aspects of Cascade's Project and management of Lake Tapps Reservoir, including requirements for: enhanced funding for replacement, maintenance, and operation of gaging equipment; enhanced project maintenance including fish screen maintenance in the diversion canal; and enhanced streamflow monitoring and commitments to further study aspects of the Project.

One of the central features of the WRMA is the agreed flow regime for the White River, under which Cascade abide by minimum flow rates for the Reservation Reach of the White River, as measured at the Buckley gage, as well as diversion limits, ramping rates and limitations on tailrace discharges from the Reservoir. This agreed-upon flow regime ("Recommended Flow Regime") is based on the natural seasonal pattern in flow conditions to help improve fisheries resources and habitat in the White River and in the Lower Puyallup River.

Minimum Instream Flows for the Puyallup River at Puyallup are specified in WAC 173-510-030. The claim is senior to and therefore not conditioned on the Puyallup River MIFs.

Although it is not required to do so, Cascade has agreed to operate its diversion for the additional purposes covered under this change to the Puget Claim in compliance with the Recommended Flow Regime. Accordingly, the Recommended Flow Regime has been incorporated in the Provisions section above. In a surface change decision under RCW 90.03.380, Ecology generally lacks authority to impose flow restrictions. *See PUD No. 1 Pend Oreille Cy. v. Ecology,* 146 Wn.2d 778, 51 P.3d 744 (2002).

Impairment Considerations

In order to approve a change decision under RCW 90.03.380 Ecology is required to find that the change will not impair any existing water rights. As discussed in the SEPA section below, the change is unlikely to adversely affect or reduce water levels in the White River. Even if a small reduction in White River flow did occur, no information suggests that such a reduction would prevent another water right from achieving its authorized use. The change also provides water to maintain recreational levels in Lake Tapps. Finally, because White River water is foreign to the lake, any water that derives from the White River and is contributed to Lake Tapps, or to aquifers or streams fed by Lake Tapps, would constitute foreign water to which existing water rights have no legal entitlement. In summary, absent evidence of any potential future impairment, it is concluded that the change decision will not impair existing water rights.

Previous Change Application

On September 2, 1990, Puget filed an Application for Change with Ecology's Northwest Regional Office to add "fish hatchery operation" as an additional purpose of use, and to designate a second point of diversion to the Puget Claim. A subsequent Report of Examination was issued on April 14, 1992 and a Certificate of Change was issued on April 15, 1994 authorizing a diversion of up to 12 cfs. The 12 cfs for hatchery purposes is "nonconsumptive, re-use" of water and the hatchery intake is located approximately 2,200 feet upstream of Puget's original diversion point. Water from the hatchery is discharged back into the White River immediately below the diversion dam. Any of the 12 cfs that may be diverted to the hatchery is not available for diversion into the intake, flowline, and Lake Tapps.

In addition to surface water, the hatchery uses wells operated under the authority of Ground Water Certificate G1-25214. The Report of Examination for G1-25214, issued on December 13, 1991, states that since the White River is closed to further water diversions, ground water withdrawals under G1-25214 are supplemental to Puget's 160822 claim. Based on review of the Certificate of Change to 160822, review of the Report of Examination for G1-25214, and communications with the Muckleshoot Indian Tribe, Ecology has determined that groundwater withdrawals under G1-25214 are non-additive with the 12 cfs portion of Claim 160822 allocated for fish hatchery operation.

In a Deed and Easement Agreement dated October 14, 2009, Puget conveyed to the Muckleshoot Indian Tribe the rights associated with the hatchery operation, including: (1) Ground Water Certificate G1-25214 and (2) the 12 cfs portion of the Claim authorized for fish hatchery operations pursuant to the certificate of change. The conveyed portion of the Puget Claim is described in the Certificate of Change to Water Right Claim dated April 15, 1994. To reflect this conveyance, Ecology will issue a superseding certificate of change to the Muckleshoot Indian Tribe for the portion of the Puget Claim conveyed to the Tribe for "fish hatchery operation – continuous" with an instantaneous quantity of 12 cfs. Annual quantity is "N/A non-consumptive re-use."

Approval of the subject change application pertains to the 1,988 cfs remaining under the Puget Claim and will not otherwise affect the 12 cfs hatchery diversion or Ground Water Certificate G1-25214.

Beneficial Use

The additional purposes of use are: recreational reservoir levels; winter reservoir levels to maintain reservoir; protect and enhance fish and wildlife; maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements. RCW 90.54.020(1) identifies beneficial uses as follows:

"Uses of water for domestic, stock watering, industrial, commercial, agricultural, irrigation, hydroelectric power production, mining, fish and wildlife maintenance and enhancement, recreational, and thermal power production purposes, and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state, are declared to be beneficial."

Recreation, protection and enhancement of fish and wildlife, and maintenance of water quality for recreation and to meet regulatory requirements (i.e., preservation of environmental values) are clearly beneficial uses as they are specifically mentioned in RCW 90.54.020. Maintenance of the reservoir is not specifically listed, but is a beneficial use under either preservation of aesthetic values (by controlling milfoil growth) or "all other uses compatible with enjoyment of the public waters of the state."

Consideration of Protests and Comments

In response to public notice published by the applicant, Ecology received comment letters from: the Puyallup Tribe of Indians; the Muckleshoot Indian Tribe; the City of Auburn; and the National Oceanic and Atmospheric Association, National Marine Fisheries Service ("NOAA Fisheries"). A summary of the comments and response are provided below:

Puyallup Tribe of Indians — letter from Bill Sullivan on April 25, 2006. This letter reminds Ecology that the Puyallup Tribe of Indians is interested in the establishment of flows for the White River. The Puyallup Tribe of Indians acknowledges that any Certificate of Change granted will be subject to minimum flow agreements.

NOAA Fisheries – letter from Keith Kirkendall on February 3, 2006. Mr. Kirkendall indicates that while the additional beneficial uses proposed in this Application for Change are appropriate to the public interest, it is important that diversions authorized under this claim be managed consistently with other instream flow agreements being developed for the White River. This letter restates the need to operate the diversion dam subject to minimum instream flows and other protective fish conservation measures.

Response - Cascade has agreed to incorporate the Recommended Flows as provisions of the Change to the Puget Claim. Otherwise, in a surface water change decision under RCW 90.03.380, Ecology generally lacks authority to impose flow restrictions.

City of Auburn –letter from Peter Eglick on behalf of the City on January 7, 2006. Auburn's letter states concerns that the water right change, if granted "to the degree requested", would lock-up large quantities of water within the closed White River system that never were fully utilized for the beneficial purposes reported by Puget. As a result, Auburn believes that its existing water rights would be impaired and its ability to obtain future water would be limited. Auburn also states that the amount of water Puget seeks for the new purposes exceeds the amount beneficially used in the past and the amount reasonably necessary for the new uses.

Auburn's letter indicates that it does not dispute that some water is needed to maintain Lake Tapps. However, it asserts that the amount and extent of such new uses should be significantly limited and there is no basis for issuing 2,000 cfs and 1,440,000 acre-feet per year in order to maintain Lake Tapps. Auburn also discusses the fact that due to the topography and groundwater conductivity of the area, the

White River water is more significant to the vitality of Auburn's water supply than is Lake Tapps water. Therefore Auburn asserts that allowing the diversion of "massive quantities" of water from the White River into Lake Tapps would impair Auburn's existing water rights by significantly diminishing groundwater recharge.

Regarding the PCHB remand of the Report of Examination issued by Ecology in 2003 for application S2-29934, Auburn indicates that one of the core issues was whether and to what degree Puget could exercise its pre-code water claim for purposes other than hydropower generation. In its letter, Auburn cites a number of statements in the PCHB remand decision, including statements that Puget's ability to meet the conditions placed on the consumptive right would depend on the continued use of the pre-code right and that Ecology made no determination of Puget's ability to use this right for any purpose except hydropower generation. The Auburn letter also cites a PCHB statement regarding Ecology's use of an "overriding considerations of public interest" analysis in its decision on application S2-29934, and the fact that without the need to divert water for hydropower more water might be available to meet other elements of the public interest.

Response – Most of Auburn's arguments stem from an assumption that the change, if granted, would permit water use for the new purposes at the full quantities associated with the former hydropower use. However, diversions for the additional purposes are limited by the minimum flows, instantaneous diversion limits, and limits on tailrace discharges. The tailrace limit, in particular, ensures that water beyond that necessary to provide for the additional beneficial uses would not be diverted into Lake Tapps as it could not be released.

Pursuant to an agreement between Cascade and the Cities of Auburn, Bonney Lake, Buckley and Sumner Cascade has also proposed to create a Regional Reserved Water Program that would establish a reserved quantity of water for the Cities of Auburn, Bonney Lake, Buckley, and Sumner to use in connection with future applications for new water rights or changes to existing water rights (Cascade 2010b). If approved, the Regional Reserved Water Program would have an annual quantity (Qa) of 5,060 acre feet (equivalent to a continuous 7 cfs withdrawal) and an instantaneous quantity (Qi) of 10 cfs. The Regional Reserved Water Program is separate from, but related to, the Lake Tapps Reservoir Water Rights and Supply Project, and is contained in a separate ROE, S2-29920(B).

Muckleshoot Indian Tribe – letter from Richard Reich on behalf of the MIT on January 26, 2006. The letter from the Muckleshoot Indian Tribe states concerns that the proposed change, if granted, would authorize Puget to divert water from the White River into Lake Tapps for recreational and other purposes in the full amount of Puget' s pre-code hydroelectric water right claim of 1,440,000 acre feet per year. The letter states that resumption of diversions at this level would adversely affect the flow of the White River through the Muckleshoot Indian Tribe Reservation, by adversely impacting water quantity and quality, aquatic and riparian resources, and ecosystem functions. The letter also states the following:

- Without appropriate conditions to protect Chinook salmon and bull trout, approval of the change would violate the Endangered Species Act ("ESA").
- The amount of water Puget seeks for recreational and other uses exceeds the vested quantity.
- Puget has not presented evidence that it possesses a vested right for purposes other than hydroelectric power generation.

- Puget provided no evidence demonstrating the need for water in the amount sought.

  Response – See response to City of Auburn above regarding the quantity that would be diverted for the additional purposes. Cascade has entered the WRMA with the Muckleshoot Indian Tribe and Puyallup Tribe of Indians to define an agreed flow regime for the Reservation Reach. The minimum flows, diversion limits, ramping rates, and limit of tailrace discharges of the agreed flow regime are Provisions in this ROE.

  As to the comment regarding the ESA, Ecology has no basis to believe that the amount of water authorized *under the conditions of this change* would cause a "take" under the ESA. Additionally, as a matter of legal authority, Ecology does not have public interest or other similar general authority to condition surface water changes for environmental purposes.

  Regarding the Muckleshoot Indian Tribe's concern that Puget has not presented evidence that it possesses a vested right for purposes other than hydroelectric power generation, that in fact is the purpose of this change, which can only occur if the appropriate tests can be answered by Ecology in the affirmative.

TENTATIVE DETERMINATIONS AND CONCLUSIONS

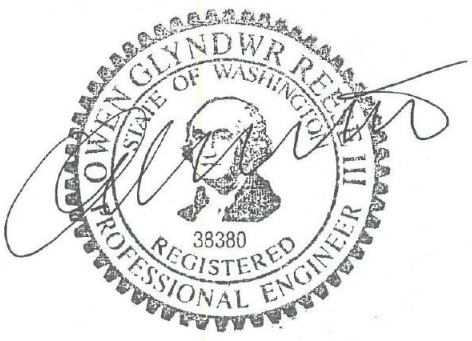
The following conclusions summarize the results of the investigation described above:

- Ecology may issue a Certificate of Change on a water right represented by a claim, provided that the department believes a claimed right exists, and other statutory tests can be met.
- Ecology has assessed this claim, and has tentatively determined the right to be valid in the following quantities: 1,988 cfs instantaneous quantity (Qi) and 931,281 acre feet per year annual quantity (Qa).
- The Puget Claim is based on appropriation and beneficial use of White River water. The investigation found evidence that diversion of water for hydropower generation occurred prior to 1917 and that Puget or its predecessor diligently increased diversion under the right to reach 2,000 cfs within a reasonable time thereafter. Diversion records indicate that Puget used a maximum annual quantity of 931,281 acre feet in 1959.
- By Deed and Easement Agreement dated October 14, 2009, Puget conveyed to the Muckleshoot Indian Tribe that portion of the Claim authorizing surface water withdrawal of 12 cfs, non-consumptive re-use for fish hatchery operations. The conveyed portion of the Claim is described in the Certificate of Change to Water Right Claim dated April 15, 1994. To reflect this transaction, Ecology will issue a superseding certificate of change for the portion of the Claim conveyed to the Muckleshoot Indian Tribe for "fish hatchery operation – continuously" with an instantaneous quantity of 12 cfs. Annual quantity is "N/A (non-consumptive re-use)." This decision does not otherwise affect the 12 cfs for fish hatchery operations.
- The proposed additional purposes of use (recreational reservoir levels; winter reservoir levels to maintain reservoir; protect and enhance fish and wildlife; maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements) are beneficial uses.
- The proposed additional purposes of use under the conditions established in this ROE will not impair any existing water rights.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that the following change to Purpose of Use be approved subject to the provisions above:

> Add purposes of use for reservoir level maintenance, protection and enhancement of fish and wildlife, maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements.



Report by: _____ 9/2/2010

Owen Reese, PE — Date
Aspect Consulting, LLC

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