

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

- Surface Water** (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- Ground Water** (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE June 20, 2000	APPLICATION NUMBER S2-29920	PERMIT NUMBER S2-29920(A)	CERTIFICATE NUMBER
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NAME
Cascade Water Alliance

ADDRESS (STREET) 11400 SE 8th Street, Suite 440	(CITY) Bellevue	(STATE) Washington	(ZIP CODE) 98004
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PUBLIC WATERS TO BE APPROPRIATED

SOURCE White River		
TRIBUTARY OF (IF SURFACE WATERS) Puyallup River		
MAXIMUM CUBIC FEET PER SECOND 1,000 from February 15 until Refill Date or July 1, whichever is earlier. 400 from Refill Date until September 15 or Fall Drawdown Date, whichever is later. 150 from the date the Fall Drawdown Date to February 15. See Condition 2 for definitions of Refill Date and Fall Drawdown Date.	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE FEET PER YEAR 54,300

QUANTITY, TYPE OF USE, PERIOD OF USE 54,300 acre feet per year	Municipal water supply, including industrial and commercial purposes	Year round, as needed
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Ecology has issued two separate Reports of Examination corresponding to application S2-29920: one corresponds to the Lake Tapps Reservoir Water Rights and Supply Project [permit S2-29920(A)] and the other corresponds to the Regional Reserved Water Program [permit S2-29920(B)]. Water quantities from the two permits are additive. The two permits have the same priority date, but the permit for S2-29920(A) is superior in priority. Both of the permits are evaluated in one Investigator's Report.

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL

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

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N.	RANGE, (E. OR W.) W.M.	W.R.I.A.	COUNTY
NE1/4	2	19	6 E.W.M	10	Pierce

RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
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LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

The place of use for this water right is the combined service areas described in the most recent Water System Plans approved by the Washington State Department of Health for the Cascade Water Alliance, the City of Seattle and the City of Tacoma.

DESCRIPTION OF PROPOSED WORKS

Lake Tapps Water Rights and Supply Project

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	WATER PUT TO FULL USE BY THIS DATE:
December 31, 2040	Within 15 Years of Begin Construction Date	December 31, 2060

The development schedule is as follows:

- Begin construction within 30 years of the issuance of the permits
- Complete construction within 15 years of the beginning of construction
- Achieve full beneficial use of the allocated quantities within 50 years of issuance of the permits.

The Begin Construction Date is the date when Permit Holder has received all necessary major permits for the construction of the water treatment plant and transmission system and commenced work on facilities considered to be significant permanent elements of the project or excavation for project foundations or pipelines.

The Completion of Construction Form may be filed after the water treatment plant is completed, tested and capable of treating the full capacity and a transmission system is available in accordance with Permit Holder's Water System Plan, including appropriate agreements to use other entities' transmission systems, sufficient to transport the full amount of water to the appropriate delivery points.

Permit Holder is advised that a notice of Proof of Appropriation of water (under which the final certificate of water right is issued) should not be filed until the quantity of water allocated by this authorization, to the extent water is required, has been put to full beneficial use.

PROVISIONS AND CONDITIONS

The Permit Holder must meet the provisions and conditions of this section. These provisions and conditions apply at permit issuance, except as noted in the individual condition.

1. Minimum Flow.

The Permit 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 Permit 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

<u>Time Period</u>	<u>Minimum Flow</u>	<u>Time Period</u>	<u>Minimum Flow</u>
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 Permit 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 Permit 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 Permit 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 Permit 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 Permit 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 Permit Holder’s commencement of the use of Lake Tapps Reservoir for municipal water supply, whichever comes later.
- b) Thereafter, the Permit 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 Permit 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. Permit Holder shall submit any proposal for modification to Ecology for review and approval in accordance with Condition 21. The proposal shall include documentation that Permit Holder has completed an appropriate consultation or negotiation process with stakeholders and other interested parties.

6. Protect Puyallup River Minimum Instream Flows in Spring.

During projected minimum instream flow shortfalls at USGS gage 12101500 – Puyallup River at the Puyallup from February 15 through March 31 of each year, the Permit Holder shall reduce the quantity of flow diverted from the White River up to the amount of water actually being withdrawn from Lake Tapps Reservoir for municipal water supply purposes (i.e., up to a maximum annual quantity of 5,900 acre feet). The Permit Holder shall develop an operating protocol for diversions from the White River to Lake Tapps Reservoir, for review and approval by Ecology in accordance with Condition 21. The protocol shall incorporate appropriate stream flow gaging and modeled travel time to estimate when diversions should be reduced to provide additional flow at the Puyallup gage. This condition shall apply when water is first withdrawn from Lake Tapps Reservoir for municipal water supply purposes.

7. Minimization of Powerhouse Leakage.

To the extent practical, the Permit Holder shall minimize leakage from the former White River Hydroelectric Project powerhouse beginning not later than when water is first withdrawn from Lake Tapps Reservoir for municipal water supply purposes. Within 5 years of permit issuance, the Permit Holder shall submit a plan for minimizing powerhouse leakage to Ecology for review and approval in accordance with Condition 21.

8. Streamflow Monitoring.

Within two (2) years of the issuance of the permit, the Permit 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 permit. 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 Permit 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 Permit Holder shall use the most accurate gaging equipment and methodology as determined by the USGS. At least every five (5) years, Permit Holder shall evaluate the adequacy of the stream flow monitoring gages. The Permit Holder shall maintain the above streamflow gages for the duration of this project.

9. Maintenance of Diversion Canal Fish Screens.

The Permit 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.

10. Annual Compliance Summary Report.

On an annual basis, the Permit Holder shall submit to Ecology a report summarizing and documenting compliance with the conditions of this permit. At a minimum, the report shall include compliance with the Minimum Flows for the White River, ramping rates, maximum diversion rates, recreational lake levels, and reductions of diversion during spring for the Puyallup River Minimum Instream Flow, as well as emergency operations, and any non-compliance with conditions of this permit. Annual reports shall document compliance with mitigation requirements over a calendar year and shall be submitted to Ecology by February 15 of the subsequent year.

11. Tailrace Study.

The Permit Holder shall conduct the following studies regarding the tailrace canal of Lake Tapps Reservoir.

- a. A study of the tailrace releases from Lake Tapps to determine if releases are causing or contributing to non-attainment of designated uses and water quality criteria violations in the lower White and Puyallup Rivers. If the study determines discharge from Lake Tapps is adversely affecting water quality, the Permit Holder shall develop and implement a plan to improve tailrace water quality.
 - i. Study Schedule: Within five (5) years of permit issuance, the Permit Holder shall submit a Quality Assurance Project Plan ("QAPP") for the water quality study to Ecology for review and approval in accordance with Condition 21. For guidance on preparing QAPPs, see Ecology Publication No. 04-03-030. The study period shall not exceed five (5) years. The final report for the study shall be submitted to Ecology within one hundred eighty (180) days after the end of the study period, or as specified by Ecology in its QAPP approval. The water quality study should include, but not necessarily be limited to, continuous monitoring of temperature and dissolved oxygen in tailrace releases and instream locations to be identified in the QAPP.
 - ii. Tailrace Water Quality Plan: If the water quality study concludes, or if Ecology determines, that tailrace releases from Lake Tapps are causing or contributing to non-attainment of designated uses or water quality criteria violations in the Lower White and Puyallup Rivers, the Permit Holder shall develop and implement a plan to improve water quality in tailrace releases. The plan shall provide for an adequate period of monitoring to determine the success of the plan in improving water quality of tailrace releases. A draft plan shall be submitted to the following for review and comment: the agencies and parties to the 1998 Agreement on the Allocation of the Puyallup River TMDL Reserve Capacity of Biochemical Oxygen Demand ("BOD") and Ammonia or any successors in interest, Puyallup Tribe of Indians, Muckleshoot Indian Tribe, and NOAA Fisheries. The final plan shall be submitted to Ecology for review and approval in accordance with Condition 21 within one year from submittal of the final study report. Upon receipt of the final plan, Ecology may issue an order approving or modifying the plan, and the Permit Holder shall implement the plan.
- b. A study to assess the relationship between salmonids and the tailrace canal. Within one hundred eighty (180) days of the completion of Condition 7 above (Minimization of Powerhouse Leakage), Cascade shall begin a study to assess the occurrence of entry, delay, stranding, and/or delayed migration of salmonids in the tailrace canal. If the study determines that adverse conditions are occurring and remediation is necessary, the Permit Holder shall develop and implement a plan to improve conditions. The plan shall include consideration of a tailrace barrier. Prior to implementation, the Permit Holder shall submit the plan to Ecology for review and approval in accordance with Condition 21.

12. Department of Health Water System Planning.

The water appropriated under this application will be used for public water supply. The State Board of Health rules require public water supply owners to obtain written approval from the Department of Health's Office of Drinking Water Supply, prior to any new construction or alterations of a public water supply system.

13. Shortage Management Plan.

No later than two (2) years after this authorization to make use of public water becomes effective, Permit Holder shall adopt and submit to Ecology a shortage management plan intended to reduce and minimize the need for water for municipal water supply purposes when the region is experiencing dry or drought conditions.

14. Fish Screens on Outlets from Lake Tapps Reservoir.

Within five (5) years of permit issuance, the Permit Holder shall install fish screens on any outlets from Lake Tapps Reservoir, if required and warranted based on scientific studies. Prior to construction, the Permit Holder shall submit a

plan for installation, operation, and maintenance of the fish screens to WDFW for approval or modification. Fish screens shall be installed, operated, and maintained according to the plan approved by WDFW.

15. Measuring and Reporting Water Use.

An approved measuring device shall be installed and maintained for the Lake Tapps water supply withdrawal pipeline to the water treatment plant in accordance with the rule "Requirements for Measuring and Reporting Water Use", chapter 173-173 WAC.

Water use data shall be recorded daily. The maximum monthly rate of diversion/withdrawal and the monthly total volume shall be submitted to Ecology in digital format by January 31 of each calendar year.

The following information shall be included with each submittal of water use data: owner, contact name if different, mailing address, daytime phone number, Water Resource Inventory Area ("WRIA"), Permit/Certificate/Claim No., source name, annual quantity used including units, maximum rate of diversion including units:

- Monthly meter readings including units;
- Peak monthly flow including units;
- Department of Health WFI water system number and source number(s);
- Purpose of use; and
- Open channel flow or pressurized diversion.

Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications of some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements."

16. Existing Rights.

This authorization to make use of public water granted by the State of Washington is subject to existing water rights, including any existing rights held by the Tribes or the United States for the benefit of Tribes under treaty or settlement.

17. Use of Claim.

This permit is expressly conditioned on the use of water under Claim No. 160822 to satisfy recreational, lake level, aquatic habitat, water quality, and other regulatory beneficial uses and the conditions of this permit.

18. Combined Diversion Not to Exceed Limits.

The combined instantaneous diversion of water from the White River for municipal water supply under this authorization and under the rights the Permit Holder claims under Claim No. 160822 shall not exceed the limits established for additional purposes under the change decision in Claim No. 160822.

19. Trust Water Donation.

No later than two (2) years after this authorization to make use of public water becomes effective, the Permit 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 Permit 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, 6, 7, 8, 11, and 20.

1. Notify Ecology

Permit 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

Permit 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 Permit Holder shall ensure that Ecology receives the information. Ecology shall review the submitted information and respond to the Permit Holder in a timely manner. This provision applies to the requirements for review and approval by Ecology in Conditions 1, 2, 4, 5, 6, 7, 8, and 11.

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 Permit 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 Permit 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 Permit 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 Permit 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 DECISION

Upon reviewing the attached report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I find it is clear that overriding considerations of the public interest will be served by the appropriation of public surface water, and the appropriation as recommended is a beneficial use and will not be detrimental to existing rights or the public welfare.

Therefore, I ORDER permit S2-29920(A) be issued under Surface Water Application Number S2-29920, subject to existing rights and the conditions and provisions above, to allow appropriation of public surface water for the amount and uses 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 Coordinator
P.O. Box 47608
Olympia WA 98504-7608

OR Deliver your appeal in person to:

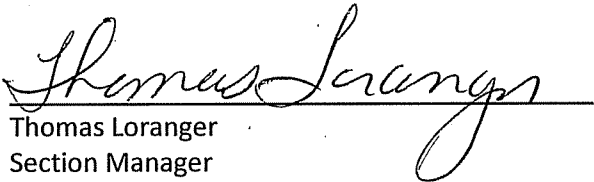
The Department of Ecology
Appeals & Application for Relief Coordinator
300 Desmond Dr SE
Lacey WA 98503

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 September, 2010.


Thomas Loranger
Section Manager
Water Resources Program
Southwest Region