CASCADE
WATER ALLIANCE

June 30, 2008

Subject: Cascade Water Alliance
Lake Tapps Reservoir Issuance of New Municipal Water Rights and Change of Use for Existing Claim No. 60822
Determination of Significance and Request for Comments on Scope of Environmental Impact Statement

To Whom It May Concern:

The enclosed Determination of Significance (DS) and environmental checklist have been prepared for the above-referenced project in compliance with the State Environmental Policy Act (SEPA) under Chapter 43.21C RCW. The Cascade Water Alliance (Cascade) is the proponent and lead agency.

Copies of the DS and environmental checklist can be obtained by calling Cascade at (425) 453-0930 or visiting our website at: www.cascadewater.org. Additionally, background materials can be viewed at Cascade's office at the address noted below.

Comments are invited and should be postmarked on or before **August 1, 2008**. Written comments should be addressed to:

Michael A. Gagliardo, Director of Planning
Cascade Water Alliance
11400 SE 8th Street, Suite 440
Bellevue, WA 98004

Sincerely,

Michael A. Gagliardo
Director of Planning

Enclosures

11400 SE 8th Street — Suite 440 — Bellevue, WA 98004
Phone: (425) 453-0930 — Fax: (425) 453-0953
Website: www.cascadewater.org

Lake Tapps Reservoir
Issuance of New Municipal Water Rights and Change of Use for Existing Claim No. 60822

Determination of Significance and Request for Comments on Scope of Environmental Impact Statement and Environmental Checklist

CASCADE WATER ALLIANCE

June 2008

CASCADE WATER ALLIANCE

DETERMINATION OF SIGNIFICANCE AND REQUEST FOR COMMENTS ON

SCOPE OF ENVIRONMENTAL IMPACT STATEMENT FOR THE

LAKE TAPPS RESERVOIR ISSUANCE OF NEW MUNICIPAL WATER RIGHTS AND

CHANGE OF USE FOR EXISTING CLAIM NO. 60822

Description of Proponent and Proposal:

a. Description of Proponent

Cascade Water Alliance (Cascade), a Washington non-profit corporation, is organized under the authority of the Interlocal Cooperation Act, Ch. 39.34 RCW, for the purpose of developing water supply to meet the demands of its Members. Cascade is comprised of cities and special purpose districts, each of which is authorized to provide water supply to its designated service area. The Members of Cascade have entered into an Interlocal Contract (Interlocal) to enhance their ability to supply water to their respective service areas and to the region by developing, owning, and operating regional water supply assets. The Members of Cascade are:

- City of Bellevue
- City of Issaquah
- City of Kirkland
- City of Redmond
- City of Tukwila
- Covington Water District
- Skyway Water and Sewer District
- Sammamish Plateau Water and Sewer District

Cascade serves as the primary planning authority for the regional water supplies needed to serve its Members. Cascade is responsible for managing, on behalf of its Members, the regional water supply system and has the responsibility and authority, as authorized under the Interlocal, to plan and provide water to its Members for use within their existing and future water service area boundaries. In furtherance of long-term water supply goals, Cascade has entered into an agreement to purchase certain applications for water rights and an application for change in use of an existing water right and related real and personal property assets from Puget Sound Energy (PSE), to develop Lake Tapps Reservoir as a source of municipal water supply.

b. Description of Proposal

Cascade is proposing that Ecology review and approve three water right applications (S2-29920, R2-29935, and S2-29934), and a requested change to existing Claim No. 60822 (Applications), and issue the water rights permits in accordance with a specific Recommended Flow Regime. The Recommended Flow Regime proposal is summarized in Section A.11 of the Environmental Checklist. Ecology must review and approve or deny the requested Applications and proposed Recommended Flow Regime. Ecology's approval of the Applications and Recommended Flow Regime is a

necessary and prerequisite step to facilitating Cascade's development of Lake Tapps Reservoir as a municipal water supply.

Proponent:

Cascade Water Alliance
11400 SE 8th Street, Suite 440
Bellevue, WA 98004
Attn: Michael A. Gagliardo, Director of Planning
Phone: (425) 453-0930

Applicant:

Puget Sound Energy
P.O. Box 97034
Bellevue, WA 98009
Phone: (425) 452-1234

Location of Proposal, including street address, if any:

Lake Tapps is located in the Puyallup/White River watershed, Water Resource Inventory Area (WRIA) 10, in northern Pierce County, Washington, approximately 20 miles southeast of Puget Sound. The project area is located approximately 30 miles southeast of Seattle and approximately 18 miles east of Tacoma.

The point of diversion is located at the existing diversion facility under Water Rights Claim No. 60822 in the City of Buckley; the point of diversion is approximately 200 feet east and approximately 200 feet south from the North 1/4 section corner of Section 2, Township 19 North, Range 6 East, in Pierce County, Washington. Lake Tapps Reservoir is a 4.5-mile-long by 2.5-mile-wide reservoir located in the Township 20 North, Range 5 East region in Pierce County. The location of the place of use has been established as a regional supply area within King, Pierce, and Snohomish counties, as depicted on Figure 2 of the Environmental Checklist.

Lead Agency:

Environmental Impact Statement (EIS) Required

Cascade is the lead agency for the Proposal. The Proposal will have a probable significant adverse impact on the environment and an EIS is required under Chapter 43.21C.030(2)(c) RCW, WAC 197-11-330. This decision was made after review of a completed environmental checklist, documents incorporated into the checklist, and other documents on file with the lead agency. This information may be examined at Cascade's office at the address listed above.

Cascade has identified the following environmental elements for potential discussion in the EIS:

- Water (including Surface, Groundwater, and Water Runoff)
- Plants and Animals

- Recreation
- Historical and Cultural Preservation
- Energy and Natural Resources
- Aesthetics
- Climate Change
- Land and Shoreline Use (including Impacts to Surrounding Communities)
- Other Environmental Considerations

Scoping:

Agencies, affected tribes, and members of the public are invited to comment on the scope of the EIS. You may comment on alternatives, mitigation measures, probable significant adverse impacts, and licenses or other approvals that may be required. Written comments on the scope of the EIS should be sent to the responsible official indicated below and must be postmarked on or before **August 1, 2008.**

Responsible Official: Michael A. Gagliardo, Director of Planning
Cascade Water Alliance
11400 SE 8th Street, Suite 440
Bellevue, WA 98004
(425) 453-0930

Date: 6/30/2008 Signature: Michael A. Gagliardo

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Appendix A Puget Sound Energy Water Rights Applications

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Acronyms and Abbreviations

af/y	acre-feet per year
Applications	water rights applications S2-29920, R2-29935, and S2-29934
Cascade	Cascade Water Alliance
cfs	cubic feet per second
DPS	Distinct Population Segment
Ecology	Washington State Department of Ecology
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FERC	Federal Energy Regulatory Commission
FR	Federal Register
GIS	geographic information system
Historic System	White River Project System
Hydroelectric Project	White River Hydroelectric Project
IFIM	in-stream flow incremental methodology
Lake Tapps Reservoir Water Rights	Lake Tapps Reservoir Issuance of New Municipal Water Rights and Change of Use for Existing Claim No. 60822
MF	minimum flow
msl	mean sea level
NPDES	National Pollutant Discharge Elimination System
PSE	Puget Sound Energy
RM	River Mile
ROE	Report of Examination
SEPA	State Environmental Policy Act
TM	technical memorandum
the Tribes	the Muckleshoot Indian Tribe and the Puyallup Tribe of Indians
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife

WDOH	Washington State Department of Health
WRIA	Water Resource Inventory Area
WUA	Weighted Usable Area

Glossary

Diversion canal	Water is conveyed from the White River to Lake Tapps Reservoir through a diversion canal consisting of a canal, settling basins, and two large-diameter concrete pipes.
Diversion dam	Water is diverted from the White River at a diversion dam at the town of Buckley and conveyed through the diversion canal to Lake Tapps Reservoir.
Fall Drawdown	The reduction of the level of Lake Tapps Reservoir in the fall to expose portions of the lake bed for the purpose of preventing macrophyte growth or for the purpose of Project maintenance.
Hydroelectric Project	The White River Hydroelectric Project owned by Puget Sound Energy since 1911; operated until January 15, 2004.
Lake Tapps Reservoir	Formed in 1911 by construction of dikes around four natural lakes; water diverted from the White River is stored in the Reservoir and eventually released through the Reservoir Outlet Works.
Lake Tapps Reservoir Water Supply Project	See "Proposal."
Project	See "Proposal."
Proposal	The purchase of the water rights or applications for water rights, including Claim No. 60822, and issuance of the water rights. The Proposal under consideration encompasses the initial steps necessary to develop Lake Tapps Reservoir as a source of municipal water supply for the long-term needs of Cascade's Members, including acquisition of natural resources, water rights or Applications, and the issuance of the water rights by Ecology. The Proposal will also be referred to interchangeably as the "Water Supply Project" or "Project."
Reservation Reach	The area of the White River between the diversion dam and tailrace canal.
River Mile (RM)	The distance upstream of the mouth of a river or confluence with another water body. For example, RM 4.9 in the Reservation Reach is located 4.9 miles upstream of the confluence of the White and Puyallup Rivers.
Tailrace Canal	The canal through which water from Lake Tapps is discharged into the White River.

Water Resource Inventory Area (WRIA)	An administrative and planning area designated by the Washington State Department of Ecology for addressing water and aquatic resource management issues. Sixty-two WRIAs have been designated, corresponding to the state's major watershed basins. The terms "WRIA" and "watershed" are frequently used interchangeably, although a WRIA may include more than one watershed.
Water Supply Project	See "Proposal."

CASCADE WATER ALLIANCE

Cascade Water Alliance
Lake Tapps Reservoir
Issuance of New Municipal Water Rights and
Change of Use for Existing Claim No. 60822

Environmental Checklist

A. Background

1. Name of proposed project, background information, and scope of project:

a. Name of Project:

The name of the proposed project is *Lake Tapps Reservoir Issuance of New Municipal Water Rights and Change of Use for Existing Claim No. 60822* (Lake Tapps Reservoir Water Rights). Note that the terms *Project* and *Proposal* are used interchangeably throughout this checklist.

b. Background Information:

From 1911 until January 15, 2004, Puget Sound Energy (PSE) operated the White River Hydroelectric Project (Hydroelectric Project) in Pierce County. In 2000, PSE submitted the following water rights applications to the Department of Ecology (Ecology) for the purpose of developing Lake Tapps Reservoir as a municipal water supply:

(1) Surface Water Application S2-29920 (filed June 20, 2000), which proposes to divert up to 2,000 cubic feet per second (cfs) of water, not to exceed a withdrawal of 72,400 acre-feet per year (af/y), from the White River;

(2) R2-29935 (filed September 15, 2000), which seeks a reservoir permit to store in Lake Tapps Reservoir up to 2,000 cfs of water, not to exceed a withdrawal of 72,400 af/y, that would be diverted from the White River pursuant to application S2-29920; and

(3) S2-29934 (filed September 15, 2000), which seeks a secondary permit to withdraw water from Lake Tapps Reservoir for consumptive use as a municipal, commercial, and industrial water supply. The application requests a maximum instantaneous rate of 150 cfs, with an average annual rate of 100 cfs, and a maximum annual quantity of 72,400 af/y. Water would be withdrawn from the vicinity of what was previously the forebay of the Hydroelectric Project and placed into a regional treatment and transmission system.

In January 2004, PSE ceased operating the Hydroelectric Project. Since ceasing hydropower operations, PSE has continued to divert water, as needed, to maintain

levels in Lake Tapps Reservoir and has released water back into the river as a flushing or pass-through flow to maintain water quality in the reservoir.

The requested change to Claim No. 60822 would allow water to continue to be diverted from the White River into Lake Tapps Reservoir for the purposes of maintaining water quality and recreation in Lake Tapps Reservoir, and providing flows for the fish bypass structure and for fish or wildlife flow enhancement. The requested change to Claim No. 60822 and the three water rights applications (S2-29920, R2-29935, and S2-29934) are collectively referred to in this checklist as the *Applications*. Cascade Water Alliance (Cascade) has entered into an agreement to purchase the Applications and related real and personal property assets from PSE in order to develop Lake Tapps Reservoir as a source of municipal water supply.

c. Project Scope:

Cascade is proposing that Ecology review and approve the Applications, and issue the water rights permits in accordance with a specific Recommended Flow Regime. The Recommended Flow Regime proposal is summarized in Section 11 below. Ecology must review and approve or deny the requested Applications and proposed Recommended Flow Regime. Ecology's approval of the Applications and Recommended Flow Regime is a necessary and prerequisite step to facilitating the development of Lake Tapps Reservoir as a municipal water supply.

2. Name of Applicant and Proponent:

PSE is the Applicant for certain water rights applications and requested change to existing Claim No. 60822. Cascade has agreed to purchase the water rights or the applications for water rights (including the hydropower Claim No. 60822) from PSE. PSE and Cascade are seeking permit approval from Ecology as a prerequisite step to developing the Project.

3. Address and phone number of Proponent and Applicant and contact person:

Cascade Water Alliance (Proponent)
11400 SE 8th Street, Suite 440
Bellevue, WA 98004
Attn: Michael A. Gagliardo
425/453-0930

Puget Sound Energy, Inc. (Applicant)
P.O. Box 97034
Bellevue, WA 98009
425/452-1234

4. Date checklist prepared:

June 2008

5. Agency requesting checklist:

Cascade Water Alliance (Cascade)

Washington State Department of Ecology (Ecology)

6. Proposed timing or schedule (including phasing, if applicable):

As the lead agency under the State Environmental Policy Act (SEPA), Cascade has determined that the environmental review for development of Lake Tapps Reservoir as a potential municipal water supply requires phasing. The potential to develop Lake Tapps Reservoir as a source of municipal water supply is undergoing phased review because only the issuance of the water rights and their environmental impacts are presently known or can be reasonably identified in sufficient detail to allow for meaningful environmental review. Phased review encourages scrutiny of the issues that are ready for decision (i.e., the review and approval of the Applications) and excludes from review issues that are not yet ready for consideration.

According to Cascade's *2004 Transmission and Supply Plan* (Cascade, 2005), if the Applications are approved, Cascade anticipates that permitting and design of the treatment plant and related facilities necessary to implement the municipal water supply project would not occur until 2019. Construction would not begin until 2022, with potential completion occurring in 2024. Thus, later phases of environmental review would include detailed analyses of the environmental impacts of the capital improvements necessary to develop and implement the water supply project. These detailed analyses would address impacts related to construction and operation of a water treatment plant and transmission conveyance system.

Phased review would allow agencies and the public to focus on the environmental impacts of the diversion, storage, and withdrawal of water, which are ready for review, and exclude from consideration specific infrastructure issues that cannot be addressed at this time, such as the conveyance features and the means and method of treatment. Phased environmental review is expected to occur in a logical sequence (WAC 197-11-060(5)(c)(ii)): from an environmental document at an early stage (the water rights need and location of storage and withdrawal) to a subsequent environmental document at a later stage (the treatment plant and water conveyance methods and location and related design and locational environmental impacts). In light of the long lead-time associated with planning and development of infrastructure alternatives, phased review of the Project is appropriate under WAC 197-11-060.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Yes. Cascade needs to identify and plan alternatives for water treatment and conveyance facilities to serve the 20- to 50-year demands.

It is likely that Cascade would add the infrastructure typically associated with a potable water supply system to the existing facilities. To identify appropriate infrastructure, Cascade would need to conduct a detailed feasibility assessment so that decisions could be made on critical factors such as treatment plant size and technology (or phasing), treatment plant location, pipeline size or routing, or connection with other regional transmission systems. After Cascade completed a detailed alternative infrastructure analysis identifying appropriate features, withdrawal point, treatment needs, and transmission locations, agreements with water providers and design and construction schedules would be required before development began. It is anticipated that the Project would be developed in at least two phases, as follows:

- Begin construction of Phase I within 25 years from Ecology's issuance of water rights permits.
- Complete construction of Phase I within 5 years from the initiation of construction.
- Document Proof of Appropriation within 15 years from the completion of construction of Phase I.
- Begin construction of Phase II within 25 years from issuance of the water rights permits.
- Complete construction within 18 years from completion of construction of Phase I.
- Document Proof of Appropriation within 15 years from the completion of construction of Phase II.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The following information was previously prepared, and is directly related to this Proposal:

Lake Tapps Reservoir Water Rights Feasibility Report Technical Memoranda (TMs) (HDR, 2002):

No.	Name
1	Existing Principal Project Features
2	Water Supply Project Features
3	Public Water Quality Analysis – Water Quality Monitoring and Evaluation
4	Public Water Quality Analysis – Treatment Goal
5	Public Water Quality Analysis – Water Treatment Plant Feasibility Study
6	Public Water Quality Analysis – Implementation Plan
7	Watershed Management Strategy for the Lake Tapps Reservoir
8	Place of Use Description Letter
9	Demonstration of Future Demands
10	Relationship between the Existing White River Hydroelectric Project and the Proposed Lake Tapps Reservoir Water Supply
11	Basin Characterization and Data Summary
12	Lake Tapps Reservoir Hydrologic System Model Recommendation
13	Lake Tapps Reservoir System Modeling Workplan
14	Flow Modeling – Normal, Dry & Drought Conditions Letter
15	Hydroclimate Analysis
16	Lake Tapps Reservoir System Model Results and Reservoir Management Plan
17	Instream Flow Protection and Flow Augmentation Plan
18	Water Quality Monitoring Plan
19	Water Quality Monitoring Results

No.	Name
20	White River Water Quality Issues – Reservation Reach pH
21	Water Quality Issues in the Lower White and Puyallup Rivers – Dissolved Oxygen
22	Water Quality Model Recommendation
23	Downstream NPDES Issues
24	Water Quality Modeling Workplan
25	Water Quality Model Results and Downstream NPDES
26	Fish Habitat Impact Analysis
27	Groundwater Analysis

- Puget Sound Energy Response (dated July 9, 2002) to Ecology's Letter of May 31, 2002.

The following documents contain information relevant to the Proposal:

- Cascade Water Alliance, *2004 Transmission and Supply Plan* (Cascade, 2005)
- Cascade Water Alliance, February 10, 2003, *Lake Tapps Storage Reservoir Water Rights Proposal Environmental Checklist*
- Central Puget Sound Water Suppliers' Forum, *2001 Drought Response Plan*
- Seattle Public Utilities, *2001 Water System Plan Update*
- Tacoma Water, Tacoma Public Utilities, *Draft Comprehensive Plan Update*
- Washington State Department of Ecology, *Draft Initial Watershed Assessment Water Resources Inventory Area 10 Puyallup-White Watershed* (Ecology, 1995).
- Comprehensive Land Use Plans, including: *King County Comprehensive Plan, Pierce County Comprehensive Plan, Snohomish County Comprehensive Plan, Seattle Comprehensive Plan, Tacoma Comprehensive Plan, Bellevue Comprehensive Plan, Redmond Comprehensive Plan, Covington Comprehensive Plan, Sammamish Comprehensive Plan, Issaquah Comprehensive Plan, Kirkland Comprehensive Plan*, and *Tukwila Comprehensive Plan*.
- *Draft Report of Examination for Lake Tapps Reservoir Water Supply Project Application S2-29934* (Ecology, 2006).
- Cascade Water Alliance, February 2008, *Lake Tapps Reservoir Water Supply Project Environmental Checklist*.
- *Water Quantity Model Results Compendium for the Lake Tapps Water Rights Applications* (Aspect Consulting, 2006).

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No other actions, for purposes of SEPA, are pending.

10. List any government approvals or permits that will be needed for your proposal, if known.

Ecology's approval of the following water rights applications are required:

a. Surface Water Application S2-29920 (filed June 20, 2000), which proposes to divert up to 2,000 cfs of water, not to exceed a withdrawal of 72,400 af/y, from the White River;

b. R2-29935 (filed September 15, 2000), which seeks a reservoir permit to store in Lake Tapps Reservoir up to 2,000 cfs of water, not to exceed a withdrawal of 72,400 af/y that would be diverted from the White River pursuant to application S2-29920; and

c. S2-29934 (filed September 15, 2000), which seeks a secondary permit to withdraw water from Lake Tapps Reservoir for consumptive use as a municipal, commercial, and industrial water supply. The application requests a maximum instantaneous rate of 150 cfs, with an average annual rate of 100 cfs, and a maximum annual quantity of 72,400 af/y. Water would be withdrawn from the vicinity of what was previously the forebay of the Hydroelectric Project and placed into a regional treatment and transmission system.

d. Change to Claim No. 60822. The application for change of use would allow water to continue to be diverted from the White River into Lake Tapps Reservoir for the purposes of maintaining water quality and recreation in Lake Tapps Reservoir, and providing flows for the fish bypass structure and for fish or wildlife flow enhancement.

A water system plan in accordance with the Washington State Department of Health (WDOH) regulations would be required in future phases, as well as various other state and local permits and approvals that cannot be identified until the infrastructure components are specifically identified for the development.

11. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Proposal is for Ecology to review and approve the Applications (see Section 10 above) in accordance with Cascade's Recommended Flow Regime (see Appendix B). A summary of the Recommended Flow Regime follows.

<u>Recommended Flow Regime</u>

The Recommended Flow Regime was developed in conjunction with the Muckleshoot Indian Tribe and the Puyallup Tribe of Indians (the Tribes). The Recommended Flow Regime was designed to simultaneously carry out the following: (a) divert sufficient

water from the White River into Lake Tapps Reservoir to operate the Project and maintain recreational lake levels and water quality, (b) maintain minimum flows in the White River that would mimic the natural hydrograph of the system and provide enhanced volumes (and habitat) for listed fish species.

The Recommended Flow Regime provides for minimum flows in the White River, ranging from 500 cfs in the late summer/fall to over 800 cfs in the spring. Substantial diversion to Lake Tapps Reservoir is provided for in the spring (to provide for refill to recreational levels). Once the reservoir has reached recreational levels, diversion is limited to amounts needed for the municipal water supply project and for maintaining recreational levels until the Fall Drawdown period. Specific consideration was given to minimum flow in July and August to provide for the needs of the Project and White River fishery, while minimizing potential impacts on recreational levels during the peak recreational season.

An Annual Refill and Drawdown Plan would be developed in consultation with interested parties (such as the Tribes, fishery agencies, Pierce County, and the Lake Tapps residential community). This plan would establish the dates for refill and drawdown and the level of refill for the reservoir.

12. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

Lake Tapps Reservoir is located in the Puyallup/White River watershed, Water Resource Inventory Area (WRIA) 10, in northern Pierce County, Washington, approximately 20 miles southeast of Puget Sound. The project area is located approximately 30 miles southeast of Seattle and approximately 18 miles east of Tacoma. The Location Map and the Place of Use Map are shown in Figures 1 and 2, respectively.

The point of diversion is located at the existing diversion facility under Water Rights Claim No. 60822 in the City of Buckley; the point of diversion is approximately 200 feet east and 200 feet south from the North 1/4 section corner of Section 2, Township 19 North, Range 6 East, in Pierce County, Washington. Lake Tapps Reservoir is a 4.5-mile-long by 2.5-mile-wide reservoir located in Township 20 North, Range 5 East in Pierce County. The location of the place of use has been established as a regional supply area within King, Pierce, and Snohomish counties, as depicted on Figure 2.

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Commencement Bay
Lower White River
Auburn
Lake Tapps Reservoir
Tacoma
Sumner
Enumclaw
Diversion Dam
Puyallup
Buckley
Lower Puyallup River
Mud Mountain Dam
Upper White River
Carbon River
Upper Puyallup River
Mount Rainer

Lake Tapps Reservoir Water Rights

Location Map

Legend

- State Route
- city polygon
- Lake
- Puyallup Basin
- Stream

0 0.5 1 2 3 4 5 6
Miles

PSE PUGET SOUND ENERGY

CASCADE WATER ALLIANCE

HDR

Figure 1

Source / Date: DOE/1999, PSE/2000, and HDR/2001

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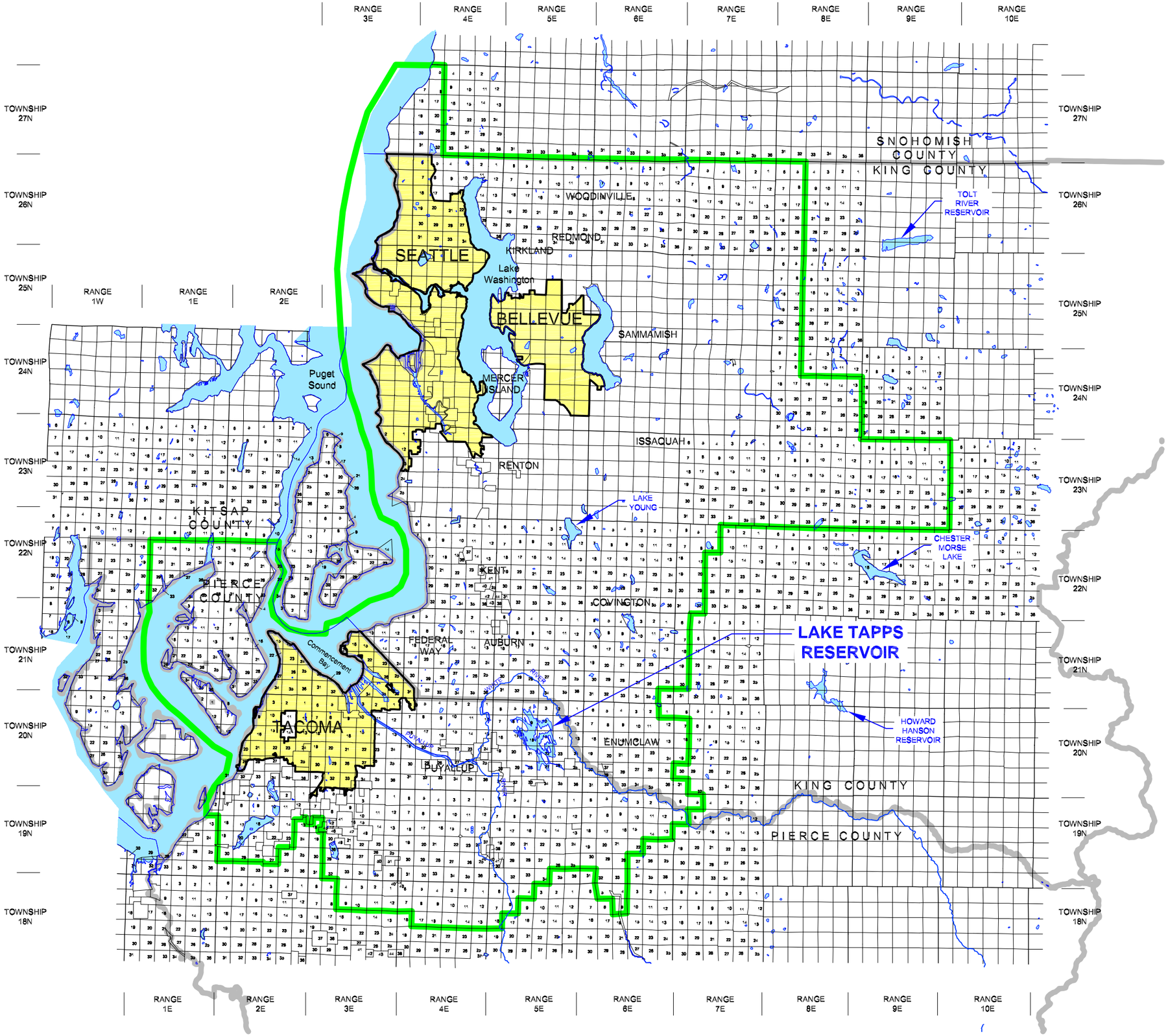

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SCALE IN FEET

LEGEND

COUNTY BOUNDARY

SEATTLE PUBLIC UTILITIES & TACOMA UTILITIES SUPPLY AREA

Figure 2

PLACE OF USE

Lake Tapps Reservoir Water Rights

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PLOT DATE:8/20/02

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B. Environmental Elements

1. Earth

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____.

The topography is generally flat to rolling from the location of the White River Diversion Dam to the western shore of Lake Tapps Reservoir. The total elevation change between these locations is approximately 130 feet. One of the steepest slopes in the project area is between the Tailrace Canal and the Intake Tunnel, with a total elevation change of approximately 550 feet.

b. What is the steepest slope on the site (approximate percent slope)?

Slopes in the general area vary from 0% to a maximum of approximately 65%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

- *White River Diversion Dam and Intake* – Buckley Association: Nearly level, poorly drained soils that formed in the Osceola mudflows; on uplands. Pilchuck fine sand (USDA, 1979).

- *Diversion Canal* – Buckley Association: Nearly level, poorly drained soils that formed in the Osceola mudflows; on uplands. Alderwood gravelly sandy loam, Buckley loam, Indianola loamy sand, Kapowsin gravelly loam, Pilchuck fine sand, Puyallup fine sandy loam, Greenwater loamy sand, Aquic erofluvents, and Semiahmoo muck (USDA, 1979).

- *Lake Tapps Reservoir* – Alderwood/Everett Association: Nearly level to rolling, moderately well drained and somewhat excessively drained soils that formed in glacial till and glacial outwash; on uplands. Alderwood gravelly sandy loam, Buckley loam, Orting loam, Semiahmoo muck, and Shalcar muck (USDA, 1979).

- *Penstock Forebay* – Alderwood/Everett Association: Nearly level to rolling, moderately well drained and somewhat excessively drained soils that formed in glacial till and glacial outwash; on uplands. Alderwood gravelly sandy loam (USDA, 1979).

- *Tailrace* – Alderwood/Everett Association: Nearly level to rolling, moderately well drained and somewhat excessively drained soils that formed in glacial till and glacial outwash; on uplands. Alderwood gravelly sandy loam, Puyallup fine sandy loam, Semiahmoo muck, Shalcar muck, Snohomish silty clay loam, and Xerochrepts.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

No filling or grading is proposed.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

No.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

None.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Not applicable. The Project would not result in erosion or impacts to earth because no construction would be required.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

None.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None are required.

3. Water

a. Surface

1) *Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.*

Yes. Lake Tapps Reservoir is located in the vicinity of the White River and the Puyallup River. The Puyallup River Basin drains an area of about 970 square miles, and originates on the north and western slopes of Mount Rainier. The White River Basin is one of the major drainages of the Puyallup River Basin with a drainage area of 494 square miles. The Lake Tapps Reservoir area and surrounding watershed are shown in Figure 1.

Surface Water Bodies

Surface water bodies that could be affected by the Project include Lake Tapps Reservoir, the White River, the Puyallup River, and the Puyallup River Estuary. The river reaches in the general vicinity of the Project are discussed below and are shown on Figure 3.

- **White River**

  The White River is of glacial origin, receiving its initial flow from meltwaters of the Fryingpan and Emmons glaciers on the east side of Mount Rainier. From these headwaters, the river initially flows east and then assumes a northerly direction for about 18 miles to Ranger Creek, and then flows northwest for about 8 miles to the confluence of the West Fork White River (River Mile [RM] 49.2) and another 4 miles to the confluence of the Greenwater River (RM 45.8).

- **Reservation Reach of the White River**

  The Reservation Reach of the White River is located between RM 24.3 and RM 3.6, immediately downstream of the existing diversion. Water from the White River that is not diverted into Lake Tapps Reservoir flows down the Reservation Reach.

- **White River Diversion Canal**

  At the existing Diversion Dam, water is diverted into the Diversion Canal and thence into the southeast end of Lake Tapps Reservoir. The Diversion Canal is 8 miles long and consists of a series of flumes, canals, and settling basins.

- **Lake Tapps Reservoir**

  Under existing conditions, water that is presently diverted from the White River is typically stored in Lake Tapps Reservoir (Figure 3) and eventually released through the Reservoir Outlet Works (see below). The reservoir is 4.5 miles long, 2.5 miles wide, with a surface area of 2,700 acres and a total volume of 67,000 acre-feet.

- **Reservoir Outlet Works and Tailrace Canal**

  The outlet for water leaving Lake Tapps Reservoir is a 2,842-foot-long, 12-foot-diameter, concrete-lined tunnel that conveys water from an intake located on the northwest shore of the reservoir to the former Hydroelectric Project forebay (Penstock Forebay, seen in Figure 3). From the forebay, the water is then conveyed downhill through one of three penstocks (pipelines).

- **Lower White River**

  The reach of the White River beginning at the entrance point from the Tailrace Canal (RM 3.6) downstream to the confluence with the Puyallup River (RM 0.0) is referred to as the Lower White River.

- **Upper Puyallup River**

  The Upper Puyallup River is located upstream of the influence of the Project and would therefore not be affected by the Project. The Puyallup River originates on the west slopes of Mount Rainer and flows approximately 30 miles before joining with the Carbon River at RM 17.8.

- **Lower Puyallup River**

  The Lower Puyallup River, from RM 10.4 to RM 1.0, extends from the confluence with the White River to the Puyallup River Estuary at RM 1.0.

- **Puyallup River Estuary**

  The Puyallup River Estuary (RM 1.0 to RM 0.0) flows into Commencement Bay at the Tacoma Harbor.

- **Commencement Bay**

  The Puyallup River flows into Commencement Bay.

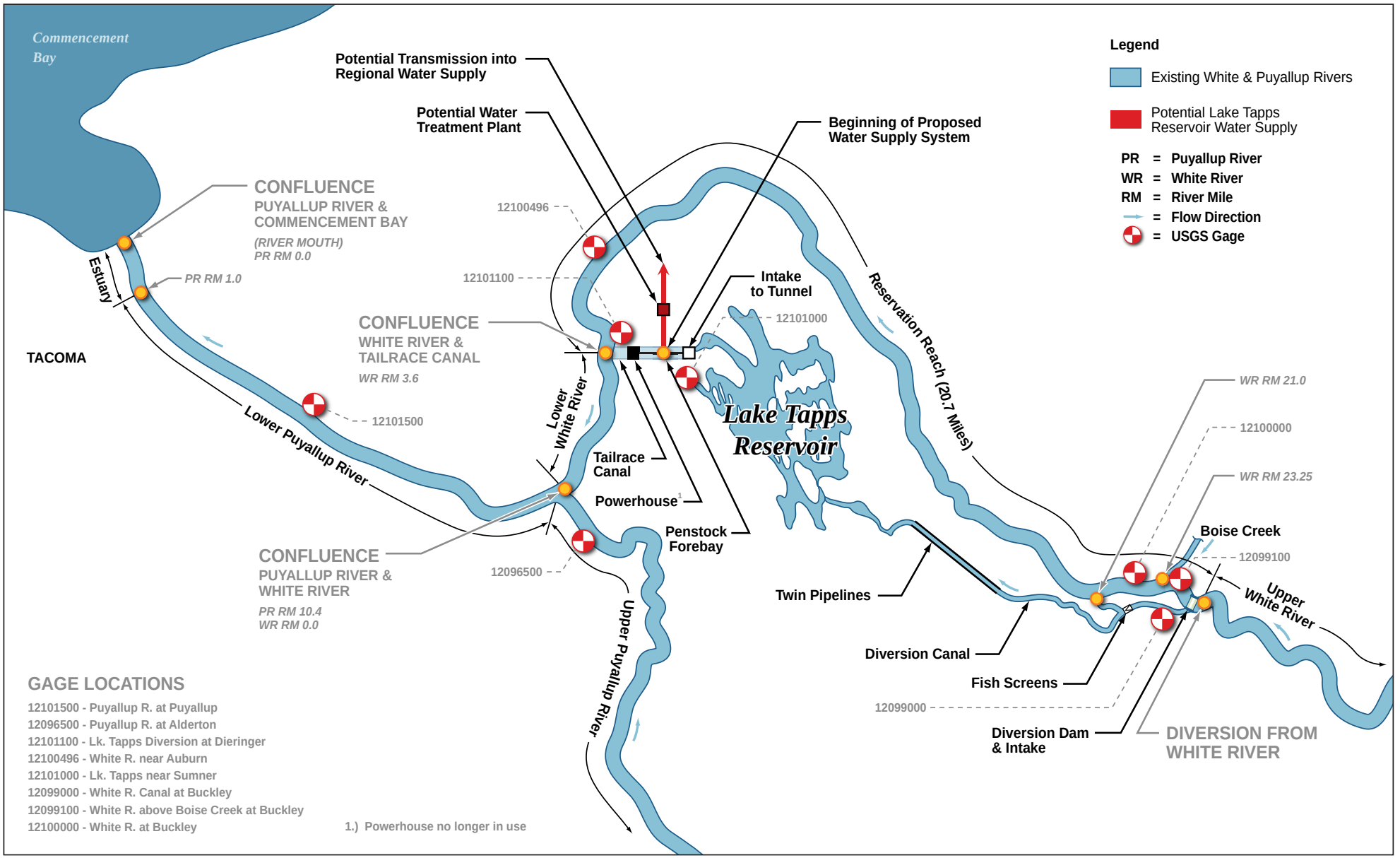

Figure 3: Reaches of the White and Puyallup Rivers (by River Mile)

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2) *Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.*

Yes. Some modification of the water supply intake from Lake Tapps Reservoir may be required. Mitigation requirements may require construction of a tailrace barrier. These components would require work completed adjacent to Lake Tapps Reservoir waters and tailrace waters. The exact nature of these modifications is in the planning phase and designs have not been completed.

3) *Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.*

There likely would be some minor filling and dredging within surface water to accommodate the construction described above. The exact specifications for this work have not yet been completed.

4) *Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.*

Yes. Lake Tapps Reservoir was formerly operated as a component of the Hydroelectric Project. Hydropower generation ceased in January 2004. Diversions to the reservoir from the White River have continued since hydropower generation ceased. However, the diversions are reduced to only support reservoir levels, water quality, and recreation (Ramey and Yoder, 2004). The Project would continue to divert water from the White River at the same location and store the water in Lake Tapps Reservoir. Water stored in the reservoir would be used for municipal water supply and maintenance of reservoir levels. Water would be released from the reservoir through the former Hydroelectric Project penstocks and routed to the Tailrace Canal.

The Project would result in the following operational changes:

- Withdrawal from Lake Tapps Reservoir for municipal water supply. Municipal water supply withdrawals would range from 83 cfs to 150 cfs with an average of 100 cfs and an annual limit of 74,200 acre-feet.

b. Ground

1) *Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.*

No groundwater would be directly withdrawn or discharged and there would be no anticipated impacts from the Project on the groundwater system compared with current conditions. Groundwater impacts would be anticipated only if the Lake Tapps Reservoir surface elevations were significantly altered, which is not expected to occur as a result of the Project. Because the average water surface elevation of Lake Tapps Reservoir would essentially be the same as existing conditions, the potential for any impacts from water surface elevation changes is considered negligible.

2) *Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.*

None.

3) Water Runoff (including storm water):

1) *Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities if known). Where will this water flow? Will this water flow into other waters? If so, describe.*

No runoff would be associated with the Project.

2) *Could waste materials enter ground or surface waters? If so, generally describe.*

No waste materials would be associated with the Project.

4) Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

None would be necessary.

4. Plants

a. Check or circle types of vegetation found on the site:

_X_ deciduous tree: red alder, big-leaf maple, aspen, black cottonwood, Oregon ash
_X_ evergreen tree: Douglas fir, western red cedar, pine, western hemlock
_X_ shrubs
_X_ grass
____ pasture
____ crop or grain
_X_ wet soil plants: cattail, buttercup, rushes, skunk cabbage, horsetail, sedges, reed canary grass
____ water plants: water lily, eelgrass, milfoil, other
____ Other types of vegetation

Source: FERC, 1992.

1) What kind and amount of vegetation will be removed or altered?

None. The Proposal would not require new construction; therefore, it would not involve vegetation removal or alteration.

2) List threatened or endangered species known to be on or near the site.

None known (FERC, 1992). Note that this information has not been updated because the Proposal would not have any effect on existing vegetation.

3) Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None would be required.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other: pileated woodpecker, yellow-billed cuckoo, waterfowl, ruffed grouse, osprey, Vaux's swift, Mallard, American coot, purple martin, dabbling duck
Mammals: deer, bear, elk, beaver, other: _____
Fish: bass, salmon, trout, herring, shellfish, other: mountain whitefish, sculpins, yellow perch, largescale sucker, redside shiner, black crappie, sunfishes, brown bullhead, longnose dace, speckled dace
Source: FERC, 1992

1) List any threatened or endangered species known to be on or near the site.

Endangered

None.

Threatened

- **Birds**

  Marbled murrelet (*Brachyramphus marmoratus*)

  Most marbled murrelet nests are associated with old growth or mature timber stands, usually located within 50 miles of salt water where foraging activities take place. Murrelets may use the area as a flight corridor between nesting and foraging habitat. No land-disturbing activities would result from this phase of the Project; therefore, no impacts to marbled murrelets or other bird species in the area would be anticipated.

- **Fish**

  Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*)

  Coastal/Puget Sound bull trout (*Salvelinus confluentus*)

  Puget Sound steelhead trout (*Oncorhynchus mykiss*)

Chinook Salmon – Listed as Threatened under the Endangered Species Act (ESA): Three Chinook stocks are present in the lower Puyallup River Basin: (1) White (Puyallup) River spring Chinook, (2) White (Puyallup) River summer/fall Chinook, and (3) Puyallup River fall Chinook. The Puyallup River system Chinook are part of the Puget Sound Evolutionarily Significant Unit (ESU). The National Marine Fisheries Service listed the Puget Sound ESU as threatened under the ESA on March 24, 1999 (64 FR 14308).

Critical habitat has been designated for the Puget Sound Chinook salmon (70 FR 52630; September 2, 2005). Portions of the Puyallup River system have been designated, including the Lower Puyallup River and main stem White River. These reaches contain a few of the essential elements needed to sustain Chinook salmon populations, including spawning, rearing, and migration habitat (70 FR 52630; September 2, 2005).

Bull Trout – Listed as Threatened under ESA: The Puyallup River system is considered part of the Coastal-Puget Sound bull trout Distinct Population Segment (DPS) by the U.S. Fish and Wildlife Service (USFWS). This DPS is a geographically isolated segment, encompassing all Pacific Coast drainages north of the Columbia River in Washington (63 FR 31695). Due to several detrimental factors (including disease, predation, increased stream temperatures, and loss of habitat), bull trout in the coterminous United States (including the Coastal-Puget Sound DPS) were listed as threatened by the USFWS on November 1, 1999 (64 FR 58910). Dolly Varden were not listed as a threatened species in the DPS when the USFWS listed bull trout in November 1999 (64 FR 58910). However, USFWS indicated in January 2001 that Dolly Varden are being considered for listing as threatened due to their similar appearance to bull trout (66 FR 1628).

Critical habitat has been designated for the Coastal-Puget Sound bull trout population (70 FR 56212; September 26, 2005). Portions of the Puyallup River system have been designated, including the Lower Puyallup River and main stem White River (70 FR 56212; September 26, 2005).

***Steelhead – Listed as Threatened under ESA*:** Two steelhead stocks are present in the lower Puyallup River Basin: (1) White (Puyallup) River winter steelhead; (2) Puyallup River winter steelhead. The Puyallup River system steelhead are part of the Puget Sound DPS. The National Marine Fisheries Service announced the listing of the Puget Sound DPS of steelhead as a threatened species under the ESA on May 7, 2007 (70 FR 26722). The listing was published in the Federal Register (FR) on May 11, 2007 and took effect on June 11, 2007. No critical habitat is presently designated for steelhead within the Puget Sound DPS.

2) Is the site part of a migration route? If so, explain.

Yes. The area is used as a migration route by both waterfowl and fish. Waterfowl use Lake Tapps Reservoir as a resting area during their migrations. There are up to eight species of anadromous salmonids that may migrate within or through various reaches of the White and Puyallup River systems. These include populations of coho (*O. kisutch*), Chinook, pink (*O. gorbuscha*), and chum (*O. keta*) salmon, cutthroat trout (*O. clarki)*, steelhead, and bull trout and/or Dolly Varden. Sockeye

salmon (*O. nerka*) have occasionally been observed during Washington Department of Fish and Wildlife (WDFW) spawning surveys in South Prairie Creek, a tributary to the Carbon River. However, the origin and extent of a naturally sustaining population in the Puyallup system is unknown (Kerwin, 1999).

Two non-salmonid species may also migrate within reaches of the White and Puyallup rivers. These include the Pacific lamprey (*Lampetra tridentata)* and river lamprey (*L. ayresi*). Of these, the river lamprey may spend its entire life cycle within fresh water, while the Pacific lamprey is anadromous, with adults migrating upstream from salt water into fresh water to spawn.

3) Proposed measures to preserve or enhance wildlife, if any:

Because the Project would not involve land-disturbing activity, it would have no impact on terrestrial species and habitat. No specific mitigation/enhancement measures are proposed that are not already a part of the Project elements related to fish, as described in previous sections. The anticipated effects on aquatic species are discussed in the following paragraphs.

Summary of Project Effects on Fisheries Resources

The effects of the Project on fish resources are summarized below for the White River and Lower Puyallup River.

- **Lake Tapps Reservoir**

  In general, the reservoir water level would not change significantly to affect the resident fish species occupying the reservoir.

- **White River**

  The Project would result in more flow during the critical low-flow period in the Reservation Reach and Lower White River. This would provide a significant benefit to juvenile salmonid rearing and spring Chinook salmon spawning by increasing the White River flows during the summer and increasing the probability that the White River minimum flows are always met.

- **Lower Puyallup River**

  Ecology reported in the *2006 Draft Report of Examination* (ROE) on an instream flow incremental methodology (IFIM) modeling analysis for the Puyallup River at RM 7.0 using USGS data and updated default habitat preference curves. Weighted Usable Area (WUA) results for juvenile salmonids indicated peak habitat values at 400 cfs for Chinook and coho and 700 cfs for steelhead. The Lower Puyallup River minimum flows established in WAC 173-510-040 are above these requirements, and the Project would comply with the minimum flows at all times. This indicates that the Project would not significantly affect habitat in the Lower Puyallup River.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

None.

1) Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

2) What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None would be required.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

No.

1) Describe special emergency services that might be required.

None would be required.

2) Proposed measures to reduce or control environmental health hazards, if any:

None would be required.

1) Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

None.

3) Proposed measures to reduce or control noise impacts, if any:

None would be required.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The Hydroelectric Project and Lake Tapps Reservoir were constructed in the early 1900s. Since the original construction, significant urban, suburban, and light industrial uses have come into existence and now occur in close proximity to the reservoir. Residential development has increased significantly. There is some limited rural residential development along the East Valley Highway to the north and south of the powerhouse, and there are agricultural uses to the east and west of the reservoir. Residential development has been occurring on the south side of the White River in the City of Buckley near the Diversion Dam. The White River Fish Hatchery operated by the Muckleshoot Indian Tribe is on the north side of the Diversion Dam in King County. Land use along the White River is primarily agricultural and residential, but is influenced by increasing amounts of urbanization.

1) Has the site been used for agriculture? If so, describe.

Various parcels of land adjacent to the project area have been used for agricultural purposes, and such use would be unaffected by the Project.

2) Describe any structures on the site.

The existing facilities that would be used to divert and store water include the following:

- A Diversion Dam.
- A Diversion Canal consisting of a canal, settling basins, and two large-diameter concrete pipes.
- A 12-foot-diameter, concrete-lined tunnel.
- Three 96-inch-diameter steel penstocks.

- A powerhouse and hydroelectric generation facilities that are no longer used for power production.
- A 34-foot-wide, 0.5-mile-long Tailrace Canal.
- Several dikes.
- Fish screens.
- Printz Basin backflow prevention structure (Printz Basin is one of the settling basins along the Diversion Canal).
- Utility roads.

3) Will any structures be demolished? If so, what?

No.

4) What is the current zoning classification of the site?

- *White River Diversion Dam & Intake* – Sensitive and Public Institutional (City of Buckley, 2005); RA-10-Rural Area – one Dwelling Unit per 10 acres (King County, 2006)
- *Diversion Canal* – Sensitive and Public Institutional (City of Buckley, 2005); Rural 10, Agricultural Resource Land, Reserve 5, and Moderate Density Single Family (Pierce County, 2007)
- *Lake Tapps Reservoir* – Rural 10, Moderate Density Single Family, and Agricultural Resource Land (Pierce County, 2007); R-1-Residential, R-2 Medium Density, R-3 High Density, and PF Public Facilities (City of Bonney Lake, 2005a)
- *Penstock Forebay* – Moderate Density Single Family (Pierce County, 2007)
- *Tailrace Canal* – M-1 Light Industrial and LDR-12 Lower Density Residential (City of Sumner, 2005a)

5) What is the current comprehensive plan designation of the site?

- *White River Diversion Dam and Intake* – Sensitive and Public Institutional (City of Buckley, 2005); Rural Residential – one Dwelling Unit per 2.5-10 acres (King County, 2006)
- *Diversion Canal* – Sensitive and Public Institutional (City of Buckley, 2005); Rural 10, Agricultural Resource Land, and Reserve 5 (Pierce County, 2005)
- *Lake Tapps Reservoir* – Rural 10, Moderate Density Single Family, Neighborhood Center, Agricultural Resource Land (Pierce County, 2005); Single Family Residential, Medium Density Residential, and Conservation/Open Space (City of Bonney Lake, 2005b)

- *Penstock Forebay* – Rural 10 and Moderate Density Single Family (Pierce County, 2005)

- *Tailrace Canal* – Public-Private Utilities and Facilities (City of Sumner, 2005b)

6) If applicable, what is the current shoreline master program designation of the site?

- *White River Diversion Dam and Intake* – Conservancy Environment (City of Buckley, 2007); Resource Zoning (King County, 2007)

- *Diversion Canal* – Not applicable (Pierce County, 2005).

- *Lake Tapps Reservoir* – Rural Residential, Conservancy (Pierce County, 2005)

- *Penstock Forebay* – Not applicable (Pierce County, 2005)

- *Tailrace Canal* – Conservancy at bank of Lower White River (City of Sumner, 2005a)

7) Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

The following areas are designated as environmentally sensitive areas by Pierce County:

Pierce County Landslide and Erosion Hazard (effective September 16, 2002)

- *White River Diversion Dam and Intake* – No designation.

- *Diversion Canal* – Areas between the Project Diversion Canal, Lake Tapps Reservoir, tailrace, and the White River are designated as greater than 45% landslide/erosion hazard areas; areas immediately north and south of Printz Basin are designated as 15% to 30% landslide/erosion hazard areas.

- *Lake Tapps Reservoir* – The area immediately to the west side of the reservoir is designated as a 15% to 30% landslide/erosion hazard and a small area to the south is designated as 30% to 45% landslide/erosion hazard.

- *Penstock Forebay* – The area surrounding the Penstock Forebay is designated as a 0% to 15% landslide/erosion hazard.

- *Tailrace Canal* – An area east of the Lower White River within the Sumner city limits is designated as greater than a 45% landslide/erosion hazard.

Pierce County Wetland Inventory (effective July 11, 2003)

- *White River Diversion Dam and Intake* – No wetland designation.

- *Diversion Canal* – There are several wetlands along the Diversion Canal, including Printz Basin (one of the settling basins along the Diversion Canal, as noted above).

- *Lake Tapps Reservoir* – The entire reservoir is designated as a wetland, including several of the drainage courses and the reservoir outlet "pond".

- *Penstock Forebay* – There is one small area located near the location of the Penstock Forebay that is designated as a wetland.

- *Tailrace Canal* – There are several small areas located east of the Lower White River that are designated as wetlands.

Pierce County Potential Flood Hazard Map (effective February 23, 2005)

- *White River Diversion and Intake* – The areas immediately upstream and downstream of the White River Diversion Dam are designated as Flood Hazard.

- *Diversion Canal* – Most of the diversion canal is designated as having hydric soils. Printz Basin and a few of the upstream settling basins are designated as Flood Hazard.

- *Lake Tapps Reservoir* – The entire fringe of the reservoir is designated as Flood Hazard. An area immediately north of the reservoir outlet pond is designated as Flood Hazard and having hydric soils. Several areas west and south of the reservoir as well as to the east are designated as having hydric soils.

8) Approximately how many people would reside or work in the completed project?

None.

9) Approximately how many people would the completed project displace?

None.

10) Proposed measures to avoid or reduce displacement impacts, if any:

None would be required.

11) Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

No measures would be needed because there would be no adverse impact on land uses.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

1) **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

   None.

2) **Proposed measures to reduce or control housing impacts, if any:**

   None would be required.

10. Aesthetics

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

   Not applicable.

1) **What views in the immediate vicinity would be altered or obstructed?**

   None. Views of the Lake Tapps Reservoir shoreline vary seasonally.

2) **Proposed measures to reduce or control aesthetic impacts, if any:**

   No measures are necessary.

11. Light and Glare

a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

   None.

1) **Could light or glare from the finished project be a safety hazard or interfere with views?**

   No.

2) **What existing off-site sources of light or glare may affect your proposal?**

   None.

3) **Proposed measures to reduce or control light and glare impacts, if any:**

   None would be required.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Recreational use of the reservoir occurs seasonally, with the heavy public use typically occurring over the 14-week-long summer season from Memorial Day to Labor Day. The Lake Tapps County Park, the Bonney Lake City Park, and the Tapps Island Golf Course provide public recreational opportunities. Nine private parks are located on or near the reservoir.

The historical summer season recreational use of the reservoir consists of boating, swimming, picnicking, fishing, and golfing. In addition, there is fishing and recreation in the White River.

1) Would the proposed project displace any existing recreational uses? If so, describe.

Most of the time, recreation that occurred between Memorial Day and Labor Day would not be impacted by operation of the Project. The degree that recreation would be impacted depends on the unique climate conditions of a particular year.

2) Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

See Section A. 11.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

During the licensing process for the Hydroelectric Project, PSE conducted a cultural resources survey (PSE, 1983). One cultural resource, the historic White River Project System (Historic System), was identified as eligible for inclusion in the National Register of Historic Places. The Historic System contains 35 structures and buildings associated with the former White River Hydroelectric Project (FERC, 1992).

1) Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

The project area is situated on lands covered by the Osceola Mudflow which, if penetrated, could damage any archaeological sites located on the original land surface beneath the flow. Additionally, while constructing the new fish screen facility bypass in 1995, a small stone tool-making site was discovered on the bank above the White River. PSE consulted with the State Historic Preservation Office, Muckleshoot Indian Tribe, and the Puyallup Tribe of Indians in determining appropriate actions. No construction is proposed for this phase of the Project; thus, no disturbances would occur.

2) **Proposed measures to reduce or control impacts, if any:**

Not applicable for this phase of the Project.

14. Transportation

a. **Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**

Existing roads would not be altered as a result of this phase of the Project.

1) **Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

A Pierce Transit Park-and-Ride stop is located along the south side of Lake Tapps Reservoir at Bonney Lake Boulevard and West Tapps Highway. This Park-and-Ride is served by Pierce Transit route number 407. The City of Buckley is served by Pierce Transit route number 406, which runs about 0.5 mile south of the diversion canal along SR 410 (Pierce Transit, 2007). Existing roads would not be altered as a result of this phase of the Project.

2) **How many parking spaces would the completed project have? How many would the project eliminate?**

None.

3) **Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**

No.

4) **Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

No.

5) **How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

Not applicable.

6) **Proposed measures to reduce or control transportation impacts, if any:**

None would be required.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

1) Proposed measures to reduce or control direct impacts on public services, if any:

None would be required.

16. Utilities

a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

1) Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Michael C. Gibbs

Date Submitted: June 30, 2008

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D. Supplemental Sheet for Non-Project Actions

NOT APPLICABLE.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

   Proposed measures to avoid or reduce such increases are:

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

   Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. **How would the proposal be likely to deplete energy or natural resources?**

   Proposed measures to protect or conserve energy and natural resources are:

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

   Proposed measures to protect such resources or to avoid or reduce impacts are:

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

   Proposed measures to avoid or reduce shoreline and land use impacts are:

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

   Proposed measures to reduce or respond to such demand(s) are:

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

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References

Aspect Consulting, 2006. Water Quantity Model Results Compendium for the Lake Tapps Water Rights Applications. Prepared for the Washington State Department of Ecology, Olympia, WA.

Cascade (Cascade Water Alliance). 2005. 2004 Transmission and Supply Plan. September 29, 2005.

City of Buckley. 2005. City of Buckley Comprehensive Plan. November 2005.

City of Buckley. 2007. Personal communication between Sara Twitchell, HDR Engineering, Inc., and City of Buckley Planning Department. February 2, 2007.

City of Bonney Lake. 2005a. Bonney Lake Official Zoning Map. Effective October 13, 2005.

City of Bonney Lake. 2005b. Bonney Lake Future Land Use Plan Map. Amended and Adopted March 1, 2005.

City of Sumner. 2005a. City of Sumner Zoning Map. Adopted December 5, 2005. Ordinance No. 2147.

City of Sumner. 2005b. City of Sumner Comprehensive Plan Map. Adopted December 5, 2005. Ordinance No. 2133-A.

Ecology (Washington State Department of Ecology). 1995. Draft Initial Watershed Assessment, Water Resources Inventory Area 10,Puyallup-White Watershed. May 1995. Olympia, Washington.

Ecology. 2006. Draft Report of Examination for Lake Tapps Reservoir Water Supply Project Application S2-29934. September 26, 2006.

FERC (Federal Energy Regulatory Commission). 1992. Environmental Assessment for hydropower license. White River Hydroelectric Project FERC Project No. 2494-002. Washington, D.C.

Kerwin, John. 1999. Salmon habitat limiting factors report for the WRIA 10, Puyallup River Basin. State Conservation Commission. Olympia, WA.

King County. 2006. King County Comprehensive Plan Atlas. Adopted October 2006. Ordinance No. 15607.

King County. 2007. King County iMap – GIS Center. Accessed 2/26/2007. http://www.metrokc.gov/gis/Mapportal/iMAP_main.htm.

Pierce County. 2005. Pierce County Comprehensive Plan Zoning Map. Adopted December 5, 2005. Ordinance #2005-94S2. Effective March 1, 2006.

Pierce County. 2007. Pierce County Public GIS. Accessed January25, 2007. http://matterhorn.co.pierce.wa.us/PublicGIS/presentation/map.cfm?Cmd=INIT.

Pierce Transit. 2007. Pierce Transit System Map. Accessed January 20, 2007. http://www.piercetransit.org/sysmap.htm.

PSE (Puget Sound Energy). 1983. White River Project FERC Project No. 2494. Application for license-major project at existing dam, Puget Sound Energy (formerly Puget Sound Power & Light Company). November 1983.

Ramey, M. and C. Yoder. 2004. Affidavit Mike Ramey and Clair Yoder in Support of Motion for Partial Summary Judgment on Issues 33 and 61. Pollution Control Hearings Board Case Numbers 03-105, 03-106, 03-107, 03-109, 03-118.

USDA (U.S. Department of Agriculture), Soil Conservation Service. 1979. Soil Survey of Pierce County Area, Washington. February 1979.

Appendix A
Puget Sound Energy Water Rights Applications

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PERKINS COIE LLP

1110 CAPITOL WAY SOUTH, SUITE 405 · OLYMPIA, WASHINGTON 98501-2256
TELEPHONE: 360 956-3300 · FACSIMILE: 360 956-1208

June 20, 2000

Mr. J. Mike Harris
Southwest Regional Office
Water Resources Manager
Department of Ecology
Post Office Box 47775
Olympia, WA 98504-7775

52-29921

Re: White River Water Right Application

Dear Mike:

On behalf of Puget Sound Energy, I am filing the enclosed application for a surface water right from the White River. This water right will provide a regional water supply for current and future population needs in the central Puget Sound area. As you know Puget Sound Energy (PSE) has been informally discussing this opportunity with the Department of Ecology over the last year. Because of its current White River Hydropower Project, PSE is in the unique position to provide this public water supply without further impacts during the low stream flows currently being experienced on the Puyallup River. In fact, with the requirement of bypass flows under the new FERC license, PSE will be providing significant flows and environmental enhancement to the White and Puyallup Rivers.

The application provides you with the basic information requested on the form. PSE recognizes that the application is only the filing document and additional information and analysis are necessary to support the standards set forth in the water code for obtaining a water right. PSE has done extensive research and analysis that supports the application, including the important elements of determining the beneficial use of the water and the lack of impairment to existing rights and the instream flows. I discuss these in more detail below. PSE looks forward to reviewing the result of its work with you and your staff. Additionally, PSE will be filing necessary documents under the State Environmental Policy Act (SEPA).

PSE recognizes the Department's desire to have all interests in the basin involved in decisions related to the allocation of water through basin planning. Through its application, PSE is not rejecting basin planning efforts, but wants to remain involved. Because PSE is in a position under its FERC relicensing process to act now on this unique opportunity to obtain a water supply, I have discussed with

your staff the ability to have PSE support basin planning needs through the application itself. If the application is approved, PSE can offer a supply of water that will be a key tool in future planning efforts in the basin. PSE will agree that a limited quantity of water will not be committed until 2006 or when basin plan is adopted and approved by the Department, whichever comes first. If the plan is adopted and approved, the water will be available to address the recommendations of the basin plan for water allocation. We believe that the reasonable quantity of water reserved for basin needs should not exceed 10 cfs.

PSE agrees that a new permit will be conditioned to protect existing water rights and instream flows. PSE is developing a water management plan that will be implemented as a condition of the permit during that period of time instream flows have historically not been met at the Puyallup gauge. Based on its analysis, PSE has determined that even during low flow periods historically recorded, it can supply the quantity of water it is requesting under the permit without causing any net impact on the instream flows. PSE will utilize Lake Tapps to store sufficient water and when the stream flow at the Puyallup gauge is not meeting minimum flows, PSE will either use water only out of the Lake to satisfy the beneficial uses under the new permit, or for any water diverted under the new permit, PSE will be mitigate one-for-one with water stored in Lake Tapps, causing the drafting of Lake Tapps. In other words, the plan will assure that there will be a beneficial or neutral impact on the White and Puyallup Rivers during the low flow periods to be described in the permit.

PSE also agrees that the water right will be conditioned on an instream flow that is equivelent to the flows that Puget will be required to provide in the bypass under its new FERC license. Further, PSE will agree that as a condition of the new permit, the new water right can only be exercised if PSE is exercising its current hydropower 2000 cfs water right in compliance with the instream flow conditions of the FERC license. The flow requirements will be determined by the requirements of applicable law, but as a going forward assumption, it is expected that different points of view as to the appropriate flows will be resolved through the ongoing Lake Tapps collaborative process.

As I indicate above, the beneficial use element of the application is supported by research and analysis on the demand for current and future regional public water supplies. PSE has been meeting with major regional water purveyors, including the Cities of Seattle and Tacoma. PSE has also had discussions with the Cascade Water Alliance. Based on these discussions, PSE is confident that a new regional water

supply is necessary and supports prudent growth management planning. This is supported by PSE's independent consultant's analysis of public water supply demand.

The preparation of water forecasts is a quantitative tool used to determine the likelihood of a water district or region to meet all the needs of all the users in the future. Within the central Puget Sound Region (Pierce, King, and Snohomish Counties), some regions are unable to meet the current demands placed upon the resource. To help prepare for the future, the central Puget Sound regional water supply purveyors have come together to plan to meet the needs through an array of alternatives and options that will reduce demands and increase supplies. Although no regional water planning authority exists in the central Puget Sound Region, representatives from water suppliers in King, Pierce, and Snohomish Counties are participating in a water supply planning forum and have recently produced *Central Puget Sound Regional Supply Outlook Technical Memoranda and Progress Report* (*Outlook*, February 2000). This document, while still in progress, provides a recent compilation and analysis of the regional forecasted water demand.

Forecasted demand published in the *Outlook* report were analyzed for the two largest water suppliers in King and Pierce Counties: Seattle Public Utilities (SPU) and Tacoma Water (TW), respectively. The population of King County (1.7 million in 2000) is forecast to increase to 2.1 million in 2020. Similarly, the population of Pierce County (0.73 million in 2000) is forecast to increase to 0.94 million in 2020. Considering the combined demand of SPU and TW are about 68% of the demand in King and Pierce Counties, the documentation shows that forecast water demand exceeds available supplies.

PSE will continue to divert water from the White River, subject to the bypass flows, and operate the Project to maintain Lake Tapps. A "viable lake" analysis is being conducted by the Lake Tapps Task Force, and this analysis will likely lead to a viable lake profile that restricts draw downs for revenue generating purposes. Within these parameters, Lake Tapps will be used for storage and release of water to mitigate when necessary any net impacts during low flow periods caused by the diversion of water under the new water right permit.

To allow for the diversion of water from the White River, an amendment to the White River rule is necessary. Currently, the rule provides that when new information is available or conditions have changed within the basin, the rule should be reviewed and amended to address those new conditions. WAC 173-510-100. Puget submits

that the conditions for the new FERC license including the bypass flows, and the necessary changes to the White River Project, meet the standard for amending the rule. A proposed rule amendment will be filed with the Department.

The water right will be conditioned to require Puget or its contract agent (i.e., major basin purveyor) to offer a limited quantity of water authorized under the permit for potential water users in the White River Basin. In addition, PSE will agree, as stated above, to provide a certain quantity of water reserved for future use by persons/entities that, through a future basin planning process, are recommended in the final basin report as candidates for water supply. As I state above, we believe that 10 cfs is a reasonable quantity to reserve for basin needs. This is not, however, to be a limitation on the quantity of water that may eventually be provided to the basin.

The condition on the permits requiring PSE to address the water demands in the White River Basin must be reasonably limited so as to provide the opportunity to purvey the water regionally within a reasonable amount of time. Therefore, this condition must include a schedule that authorizes Puget to sell water regionally if certain time and financial conditions are not met. PSE will work diligently with the Department of Ecology to provide water to resolve the basin needs within a timely process. However, the permit must provide that if the efforts to work with the entities in the basin do not result in an agreement within two years of initiating contact (2006 for adoption of a basin plan), PSE may begin to commit the water to regional purveyors.

I look forward to discussing the application with you in the near future Please do not hesitate to call if you have any questions.

Very truly yours,

Tom McDonald

Tom McDonald

TM/sc

cc Ed Schild
Markham A. Quehrn

APPLICATION FOR PERMIT

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

RECEIVED
'00 JUN 20 A9:47

washington state department of ECOLOGY

[X] SURFACE WATER ☐ GROUND WATER

$10.00 MINIMUM STATUTORY EXAMINATION FEE REQUIRED WITH APPLICATION

(GRAY BOXES FOR OFFICE USE ONLY)

APPLICATION NO.	W.R.I.A.	COUNTY	PRIORITY DATE	TIME	ACCEPTED
	10	PIERCE	6/19/2000		

APPLICANT'S NAME–PLEASE PRINT
PUGET SOUND ENERGY, INC. CONTACT: EDWARD R. SCHILD

Bus. Tel. (425) 462-3022
Home Tel.
Other Tel. (360) 956-3300

ADDRESS (STREET)	(CITY)	(STATE)	(ZIP CODE)
P.O. BOX 97034 MAIL STOP: OBC-14N	BELLEVUE	WA	98009-9734

DATE & PLACE OF INCORPORATION IF APPLICANT IS A CORPORATION
9/12/60 STATE OF WASHINGTON SUCCESSOR TO CORPORATION INCORPORATED 7/8/12 STATE OF MASSACHUSETTS

1. SOURCE OF SUPPLY

IF SURFACE WATER	IF GROUND WATER
SOURCE (Name of stream, lake, spring, etc.) (If unnamed, so state) WHITE RIVER	SOURCE (Well, tunnel, infiltration trench, etc.)
TRIBUTARY PUYALLUP RIVER	SIZE AND DEPTH

2. USE

USE TO WHICH WATER IS TO BE APPLIED (DOMESTIC SUPPLY, IRRIGATION, MINING, MANUFACTURING, ETC.)

PUBLIC WATER SUPPLY AND MUNICIPAL WATER SUPPLY PURPOSES INCLUDING INDUSTRIAL AND COMMERCIAL PURPOSES

ENTER QUANTITY OF WATER REQUESTED USING UNITS OF:	CUBIC FEET PER SECOND (CFS)	*OR*	GALLONS PER MINUTE (GPM)	ACRE FEET PER YEAR
	Qa = 100 CFS AVERAGE ANNUAL FLOW RATE Qi = 2000 CFS PEAK INSTANTANEOUS FLOW RATE			72,400

TIMES DURING YEAR WATER WILL BE REQUIRED
YEAR-ROUND

IF IRRIGATION, NUMBER OF ACRES

IF MUNICIPAL USE, ESTIMATED POPULATION 20 YEARS FROM TODAY
3,040,000 (EST. POPULATION FOR PIERCE AND KING COUNTIES IN 2020)

DATE PROJECT WAS OR WILL BE STARTED	DATE PROJECT WAS OR WILL BE COMPLETED
MANY PROJECT FACILITIES ARE BUILT. ADDITIONAL CONSTRUCTION WILL BEGIN APPROXIMATELY 2006 TO 2010	ESTIMATED 2030

3. LOCATION OF POINT OF DIVERSION / WITHDRAWAL

3A. IF IN PLATTED PROPERTY

LOT	BLOCK	OF (Give name of plat or addition)	SECTION	TOWN	RANGE

3B. IF NOT IN PLATTED PROPERTY

ON ACCOMPANYING SECTION MAPS, ACCURATELY MARK AND IDENTIFY EACH POINT OF DIVERSION, SHOW NORTH-SOUTH AND EAST-WEST DISTANCES FROM NEAREST SECTION CORNER OR PROPERTY CORNER.

ALSO, ENTER BELOW THE DISTANCES FROM THE NEAREST SECTION OR PROPERTY CORNER TO THE DIVERSION OR WITHDRAWAL.

EXISTING DIVERSION FACILITY UNDER WATER RIGHT CLAIM NO. 160322 IN CITY OF BUCKLEY; 200 FEET EAST AND 200 FEET SOUTH FROM N1/4 SECTION CORNER OF SECTION 2. SEE MAP, ATTACHMENT "A"

LOCATED WITHIN (smallest legal subdivision)	SECTION	TOWNSHIP N.	RANGE (E. OR W.) W.M.	COUNTY
NE 1/4 SECTION	2	19	6 E	PIERCE

4 DO YOU OWN THE LAND ON WHICH THIS SOURCE IS LOCATED. IF NOT, INSERT NAME & ADDRESS OF OWNER. YES

WHAT IS YOUR INTEREST IN THE PROPERTY ON WHICH THE WATER IS TO BE USED (PROPERTY OWNER, LESSEE, CONTRACT PURCHASER, ETC.)

NONE. PSE OWNS PROPERTY WITHIN THE AREAS OF USE.

ARE THERE ANY EXISTING WATER RIGHTS RELATED TO THE LAND ON WHICH THE WATER IS TO BE USED (INCLUDING WATER PROVIDED BY IRRIGATION DISTRICTS OR DITCH COMPANIES) [X] YES [ ] NO

IF YES, FROM WHAT SOURCE (i.e., SURFACE OR GROUND WATER) AND UNDER WHAT AUTHORITY

PUGET SOUND ENERGY HAS A WATER RIGHT CLAIM NO. 160322; THE CURRENT WATER PURVEYORS INCLUDING THE MUNICIPALITIES WITHIN PIERCE, KING, AND SOUTHERN PORTIONS OF SNOHOMISH COUNTIES ALL HAVE EXISTING WATER RIGHTS AS PROVIDED IN THEIR WATER SYSTEM PLANS ON FILE WITH THE DEPARTMENT OF ECOLOGY.

6. DESCRIPTION OF SYSTEM PROPOSED OR INSTALLED

(FOR EXAMPLE: SIZE OF PUMP, CAPACITY OF PUMP, PUMP MOTOR HORSE POWER, PIPE DIAMETER, NUMBER OF SPRINKLERS, ETC.)

SEE ATTACHMENT "B"

7. REMARKS

A WATER FLOW MANAGEMENT PLAN WILL BE PROVIDED. PROCESSING THE APPLICATION IS SUBJECT TO AMENDMENT OF THE CURRENT BASIN RULE WAC 173-510.

8. COMPLETE THIS SECTION ONLY IF THIS APPLICATION INCLUDES IRRIGATION AS A USE

IN ORDER TO IMPLEMENT THE PROVISIONS OF INITIATIVE MEASURE NUMBER 59, THE FAMILY FARM WATER ACT WHICH WAS PASSED BY THE VOTERS ON NOVEMBER 3, 1977, WE MUST ASK THE FOLLOWING QUESTIONS.

1. LANDS THAT ARE BEING IRRIGATED UNDER WATER RIGHTS ACQUIRED AFTER DECEMBER 8, 1977. [ ] YES [ ] NO
2. LANDS THAT MAY BE IRRIGATED UNDER APPLICATIONS NOW ON FILE WITH THE DEPARTMENT OF ECOLOGY. [ ] YES [ ] NO
3. LANDS THAT MAY BE IRRIGATED UNDER THIS APPLICATION. [ ] YES [ ] NO

IF 10 ACRE-FEET OR MORE OF WATER IS TO BE STORED AND/OR IF THE WATER DEPTH WILL BE 10 FEET OR MORE AT THE DEEPEST POINT, A STORAGE PERMIT MUST BE FILED IN ADDITION TO THIS PERMIT. THESE FORMS CAN BE SECURED, TOGETHER WITH INSTRUCTIONS, FROM THE DEPARTMENT OF ECOLOGY.

SIGNATURES

APPLICANT'S SIGNATURE

W. A. GAINES, VICE-PRESIDENT, ENERGY SUPPLY

LEGAL LANDOWNER'S NAME (PLEASE PRINT)

LEGAL LANDOWNER'S SIGNATURE (OWNER OF PROPERTY DESCRIBED ON ITEM NUMBER 5)

LEGAL LANDOWNER'S ADDRESS

FOR OFFICE USE ONLY

STATE OF WASHINGTON

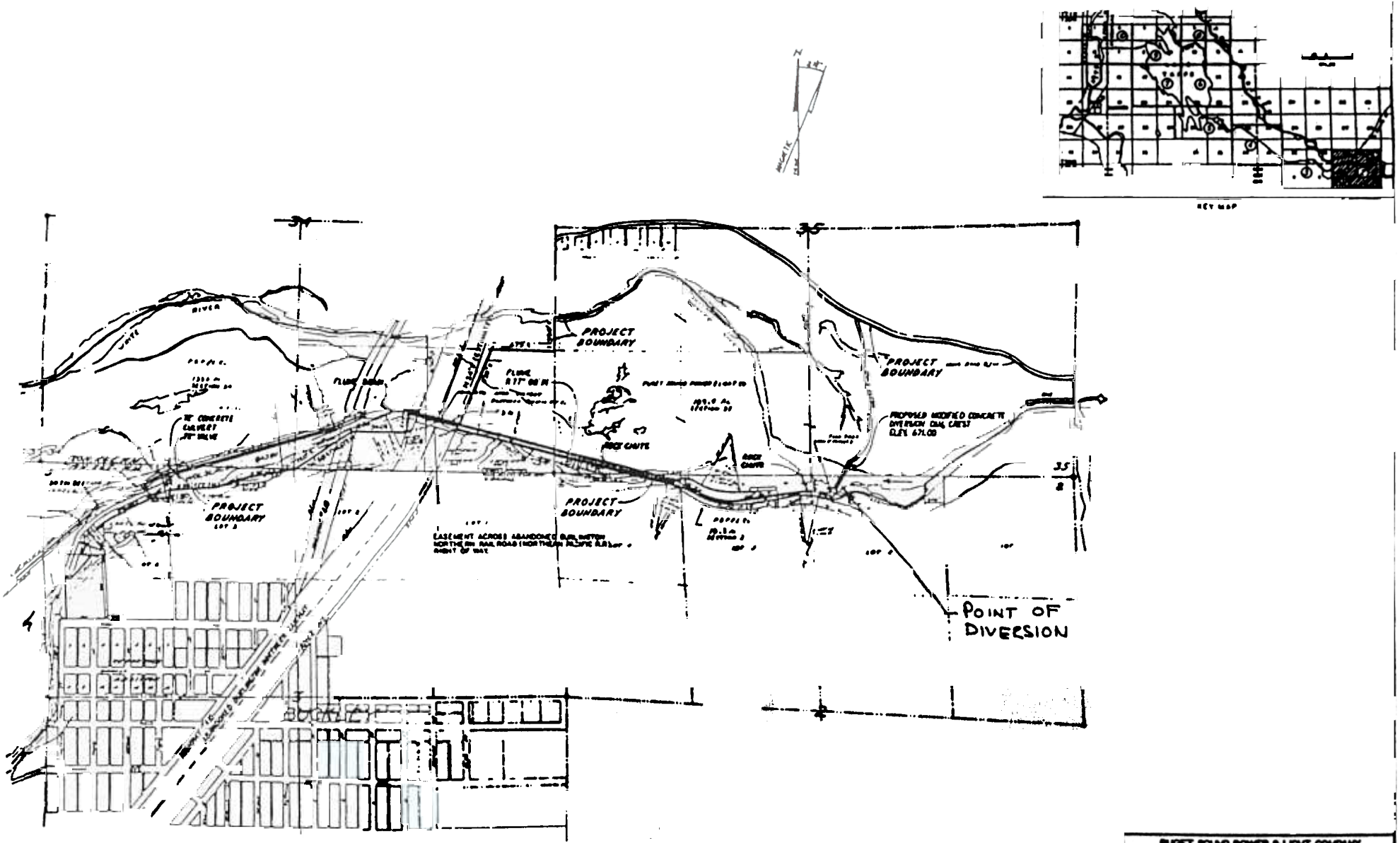
DEPARTMENT OF ECOLOGY

This is to certify that I have examined this application together with the accompanying maps and data, and am returning it for correction or completion as follows:

In order to retain its priority date, this application must be returned to the Department of Ecology, with corrections, on or before _____, 19___

Witness my hand this _____ day of _____ 19__

Department of Ecology



PUGET SOUND POWER & LIGHT COMPANY
APPLICATION FOR LICENSE
WHITE RIVER PROJECT
FERC PROJECT NO. 2494

PROJECT BOUNDARY MAP

EXHIBIT G-2

Waterright
Attachment A
June 19, 2000

I. EXISTING WHITE RIVER HYDROELECTRIC PROJECT FEATURES

The principal project features necessary to divert and convey water from the White River near Buckley to the place of use consist of both existing (installed) features and proposed features. The proposed features are further subdivided into common features and alternative specific features dependent on which regional supply system interconnection point(s) are ultimately selected. The following description of the system is based on this categorizing of facilities. The project holds a vested year-round water right that pre-dates the state water code of 1917, to divert 2,000 cfs from the White River at the existing diversion dam and intake location. Diverted water flows through a series of lined and unlined canal, pipeline, and basins over a distance of about 8-miles where it flows into Lake Tapps. From Lake Tapps the water is withdrawn via an intake to a one-half-mile-long tunnel and then into penstocks that supply four water turbines. After passing through the turbines, the water flows down a one-half-mile-long tailrace canal and returns to the White River. The reach of White River between the diversion dam and the tailrace canal return is about 23-miles long and is referred to as the "bypass reach" of the White River.

The existing principal project features that the proposed water supply project will Utilize are identified and briefly described here:

Diversion Dam – The dam is 352 feet wide and is comprised of a 4-foot high rock filled timber crib base structure, and 7-foot high flashboards. When installed, the flashboards have a crest elevation of 671 feet mean sea level (fmsl).

2 Intake – The intake is located on the left bank of the river and diverts water from the White River, as ponded behind the diversion dam. The intake is a concrete structure with no over-water operation deck. The intake has no debris rack. Water diversion is regulated by two vertical roller gates located at the down stream end of the intake, just prior water entering the flow line.

3 Flume – The first 1.1 miles of flowline consists of 2,600 lineal feet of concrete structure followed by 2400 lineal feet of wooden structure. The final section of flume consists of a 900 foot long concrete structure.

4 Earthen Canal – The next 2.4 miles of flowline are a series of earthern canals and basins (pond-like water bodies).

5. Fish Screens & Bypass Pipeline – Located within the earthen canal section of the flowline, about 2.5 miles downstream of the intake, is the 2,000 cfs fish screen and fish bypass pipeline. The vertical screen structure was put into service in 1996 and safely screens out all downstream migrating fish transporting them back to the White River via a 3000-foot-long, 31-inch diameter, 20 cfs fish bypass pipeline. Fish removed from the flowline re-enter the river and continue down the bypass reach of the White River at the discharge end of the bypass pipeline.

6 Twin Pipelines – Twin 10-foot diameter concrete pipelines convey water from a point approximately 3.5 miles downstream of the intake for a distance of 2 miles.

Twin Howell Bunger Valves – These valves are located at the downstream end of the pipelines and safely break the head in the pipes prior to the release of water into the downstream reach of the flowline.

Earthen Canal – The remaining 2 miles of flowline is a series of earthen canals and basins that end where the water enters the southeast corner of Lake Tapps.

9 Lake Tapps – Covering a surface area of roughly 2,700 acres, Lake Tapps is about 4.5 miles long by 2.5 miles wide. Lake Tapps has a storage capacity of 46,700 acres-feet at the normal maximum high pool elevation of 542.2 fmsl, and has a normal minimum low pool elevation of 515 fmsl. Therefore, Lake Tapps has a range of operating level equal to about 28.5 feet, between normal high and normal low pool elevations.

10. Tunnel Intake – Water exits Lake Tapps through a tunnel intake structure located along the northwest shore of the lake. The bottom of the intake structure is at approximate elevation 490 fmsl and the intake deck is at approximate elevation 544 fmsl.

Tunnel – Lake Tapps water is conveyed from the intake structure through a 2,842 foot long, 12-foot diameter concrete tunnel to a concrete forebay structure.

12. Forebay – The 30-foot diameter vertical shaft forebay structure is located near the top of the hill overlooking the White River Valley to the west. The forebay connects the 12-foot diameter tunnel from Lake Tapps to the three penstocks that supply water to the powerhouse located at the base of the hill. The forebay includes 3 slide gates that may be closed to isolate the 3 penstocks from Lake Tapps.

II. PROPOSED NEW WATER SUPPLY SYSTEM FEATURES

Pipeline – A pipeline is proposed to connect the proposed new water supply System to the existing Lake Tapps Project. The connection will be made on the north side of the forebay and convey raw water to a proposed water treatment plant.

2. Treatment Plant – A water treatment plant is proposed to treat Lake Tapps water Potable drinking water standards. This plant is currently planned to be located downhill and approximately 500 feet north of the forebay structure.
Alternate Specific Features

3 Regional Inter-connection Points – Currently four alternative potential points of Delivery are being examined. These are:

Delivery to Tacoma Water's regional supply system at McMillin Reservoir;

Delivery to Tacoma Water and Seattle Public Utilities' (SPU) regional supply system at the interconnection point of the North Branch of the Second Supply Project (SSP) with Pipeline No. 5 of the SSP;

Delivery to SPU's regional supply system at the north end of Lake Youngs;

Delivery to SPU's regional supply system serving the recently formed Cascade Water Alliance (CWA) near the site of the Eastside Reservoir.

4 Pipelines – Large, regional transmission pipelines are required to convey finished Water from the treatment plant near Lake Tapps to any of the potential points of delivery. These pipelines could range in diameter from 48-inches to 60-inches or larger, depending on delivery location(s).

5. Pump Stations- Due to the elevation of Lake Tapps relative to the potential points delivery, and the long distances required for water conveyance, booster pump stations will be required at various points along the pipeline alignments. The necessary pump station size ranges from 2.7 megawatt to 4.7 megawatt, depending on delivery location, alignment, and pipeline diameter.

PERKINS COIE LLP

1110 CAPITOL WAY SOUTH, SUITE 405 · OLYMPIA, WASHINGTON 98501-2251
TELEPHONE: 360 956-3300 · FACSIMILE: 360 956-1208

September 12, 2000

Mr. J. Mike Harris
Department of Ecology
S.W. Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

Re: Water Right Applications for the Lake Tapps Reservoir

Dear Mike

Enclosed please find two additional applications for the proposal described in Application No. S2-29921. I am also enclosing two documents that provide necessary information for processing the applications. These applications and documents supplement the information necessary for the Department to commence review of Puget Sound Energy's proposal to divert water from the reservoir for public water supply purposes.

The enclosed application for a reservoir permit is to allow for an additional right to store water in Lake Tapps for the water diverted for municipal/public water supply purposes under Application No. S2-29921. This right would be in addition to and not in derogation of PSE's existing storage right. As proposed, the additional use of the reservoir for municipal supply will not increase the maximum storage level (545 msl). As with the Water Right Application No. S2-29921, this application is made with a full reservation of rights as to PSE's existing diversion and storage rights

The application for the secondary permit is filed to authorize the diversion of water from Lake Tapps reservoir for delivery to a treatment facility for use by the contracted purveyors of the water. PSE is currently in discussions with several purveyors that would be expected to be purveying the water subject to the terms of the permits.

The enclosed documents include a memorandum report by HDR Engineering Inc. that summarizes the water demand for municipal/public water supply in King and Pierce Counties. This report substantiates the need for and the expected beneficial

use of the water within the area described in the application. Attached to this report are preliminary figures and engineering plans depicting options for the diversion, processing, and delivery of the water. The second report is the Lake Tapps Reservoir Water Management Plan, which describes how the diversion and storage of water will be managed to enhance instream flows in the White and Puyallup Rivers.

Please do not hesitate to call if you have any questions.

Very truly yours,

for Tom McDonald

TM:no

Enclosures

cc: Sue Mauermann
Mark Quehrn
Ed Schild
Jill Walsh

PETITION FOR ADOPTION, AMENDMENT, OR REPEAL OF A STATE ADMINISTRATIVE RULE (RCW 34.05.330)

Petitioner's Name (please print) Puget Sound Energy Telephone (425) 462-3022

Address	PO Box	City	State	Zip Code
P.O. Box 97034	Mail Stop OBC-14N	Bellevue	WA	98009-9734

Agency Responsible for Administering the Rule, If Known:

The Department of Ecology

Check all that apply below and explain on the back of this form with examples. Whenever possible, attach suggested language. You may attach other pages, if needed.

☐ **1. NEW: I am requesting that a new WAC be developed.**

I believe that a new rule should be developed.

- ☐ The subject of this rule is:
- ☐ The rule will affect the following people:
- ☐ The need for this rule is:

☒ **2. AMEND: I am requesting that a change to existing *WAC 173-510.***

☐ **3. REPEAL: I am requesting existing WAC_____ be removed.**

I believe this rule should be changed or repealed because (check one or more):

- ☐ It does not do what it was intended to do.
- ☐ It imposes unreasonable costs.
- ☐ It is applied differently to public and private parties.
- ☐ It is not clear.
- ☐ It is no longer needed.
- ☐ It is not authorized. The agency has no authority to make this rule.
- ☐ It conflicts with another federal, state, or local law or rule. Please list number of the conflicting law or rule, if know:

- ☐ It duplicates another federal, state or local law or rule Please list number of the duplicate law or rule, if known:

- ☒ Other (please explain): *The current rule closing streams from further appropriations unnecessarily restricts Ecology' authority to consider water right applications for projects that will meet the intent of stream "closures" and will otherwise be in the public interest. See **Attachment A**.*

Petitioner's Signature: _____ Date: 9/14/2000

Attachment A

The Petition to amend WAC 173.510 is being filed to allow the Lake Tapps reservoir to be developed as a source of municipal and public water supply. The rule change is necessary to allow an application for a much needed regional resource of water to be considered by the Washington State Department of Ecology ("Ecology"). This petition is being filed to reflect the significant changes that are occurring in the White River Basin and is supported and offered pursuant to the specific language of the existing rule that provides:

> The Department of Ecology shall initiate a review of the rules established in this chapter whenever new information, changing conditions, or statutory modifications make it necessary to consider revisions. WAC 173-510-100.

In 1980, Ecology adopted the Puyallup River Basin Instream Flow Management Plan that provided for the allocation and management of water in the Puyallup River Basin. WAC 173-510. The Puyallup River Basin has been designated Water Resource Inventory Area (WRIA) 10. WAC 173-500. Based on the information at the time the rule was adopted Ecology determined minimum levels of instream flows for the rivers and streams in WRIA 10. These flows were established by Ecology to protect, as it saw appropriate, these instream flow values.

Having decided that many of the streams were experiencing such low flows, Ecology decided to simply "close" these streams from further appropriations. Specifically, the rule states:

> The Department, having determined that further consumptive or appropriations would harmfully impact instream values, closes the following streams and lakes in WRIA 10 to further consumptive appropriations. WAC 173-510-040(3).

The White River is "closed" under the rule

Since the early 1900's PSE has exercised a pre-code water right to divert up to 2000 cubic feet per second (cfs) of water from the White River, store water in the Lake Tapps reservoir, and eventually run the water through a power house, and return the water back into the White River. Between the point of diversion and the point of discharge back to the White River, there exists a "by-pass" reach of the river of over 20 miles. It has been Ecology's position that this by-pass reach has insufficient flow to allow further appropriation.

A FERC license was issued in December of 1997 for the Project, a license which PSE has not accepted. Among other things, the license would require PSE to adjust its diversion, and provide more flows in the by-pass reach. These flows will, according to

federal and state resource agencies, enhance the fishery resource and the instream flow values. This change also creates circumstances justifying consideration of amending the rule related to the White River.

The petition does not however request that the closure on the White River be repealed, although this is an option. Rather, this petition requests a rule change that would allow for Ecology to consider water right applications for the use of water in "closed basins" if the applicant can support the application with evidence that the proposed project would provide substantial environmental enhancement to the Basin or support a comprehensive regional public water supply, and under no circumstances would cause additional impairment to the river during times that the flows are currently known not to meet the minimum flows established for the Puyallup River. This rule amendment will therefore recognize the purpose of the rules and meet the intent of a "closure" in the Puyallup River Basin, and will also provide Ecology with the flexibility to consider applications that, while not causing additional impairment to the instream flows during low flow times, will provide enhancement of the environmental resources or support a regional public water supply. Processing applications under this standard is consistent with the Basin planning adopted by the legislature in Chapter 90.54 RCW. See RCW 90.54.020(2), (3), (5) and (7).

The petitioner's suggest the following amendment to Chapter 173-510

Insert at WAC 173-510-040 the following:

> **(4) Notwithstanding the closures set forth in subsections (2) and (3) of this section, the department shall process applications for the appropriation of water from surface waters and ground waters affected by such closures if the applications propose a project and use of water that: (a) will not cause any additional impact to the instream flows established for the Puyallup River at a time when the Puyallup River is not meeting the minimum flows set forth in subsection (1) of this section; and (b) will substantially enhance the quality of the natural environment or will result in providing public water supplies to meet the general needs of the public for regional areas.**

We believe that the standards set forth in the proposed amendment are consistent with the criteria that Ecology has included in current rules that allow for expediting applications. See WAC 173-152 (the Hillis Rule) and WAC 173-532 (the Walla Walla Rule). Both of these rules have allowed Ecology the flexibility to prioritize the processing of competing applications if the project would "substantially enhance or protect the quality of the natural environment" or "would result in providing public water supplies to meet the general needs of the public for regional areas." See WAC 173-152-050(3).

Washington State Department of ECOLOGY

State of Washington
Application for a Water Right

Please follow the attached instructions to avoid unnecessary delays.

SECONDARY PERMIT APPLICATION FOR RESERVOIR PERMIT APPLICATION FOR LAKE TAPPS FOR APPROPRIATION FROM WHITE RIVER—SEE APPLICATION NO. S2-29921

Section 1 - APPLICANT - PERSON, ORGANIZATION, OR WATER SYSTEM

Name *Puget Sound Energy, Inc. : Edward Schild* Home Tel: (_____)_____ - _____

Mailing Address *PO Box 97034 MS: QBC-14N* Work Tel: *(425) 462-3022*

City *Bellevue* State *WA* ZiP+4 *98009 + 9734* FAX: *(425) 462-3175*

Section 2 - CONTACT - PERSON TO CALL ABOUT THE APPLICATION

☒ Same As Above

Name *Edward R. Schild* Home Tel: (_____)_____ _____

Mailing Address *same as above* Work Tel: (_____)_____ - *same as above*

City ___ State ____ ZiP+4 _____ + ____ FAX:(_____)_____ _____

Relationship to applicant _____

Section 3 - STATEMENT OF INTENT

The applicant requests a permit to use not more than *150 cfs* (☐ gallons per minute or ☒ cubic feet per second) from a ☒ surface water source or ☐ ground water source (check only one) for the purpose(s) of ____ *municipal and public water supply*. **ATTACH A "LEGAL" DESCRIPTION OF THE PLACE OF USE.** (See instructions.) *NOTE: a tax parcel number or a plat number is not sufficient*

Estimate a maximum annual quantity to be used in acre-foot per year: *72,400*

☐ Check if the water use is proposed for a short-term project. Indicate the period of time that the water will be needed:

From ____ ____ ____ to ____ / ____ ____

Section 4 - WATER SOURCE

IF SURFACE WATER	IF GROUNDWATER
Lake Tapps Reservoir	A permit is desired for well(s).
Number of diversions: *one*	
Source flows into (name of body of water)	Size and depth of well(s)
White River	

LOCATION

For location of diversion from Lake Tapps Reservoir, see Application S2-29921 and see Attachment A hereto

1/4 of	1/4 of	Section	Township	Range (E/W)	County	If location of source is platted, complete below: Lot	Block	Subdivision
NW	*NW*	*7*	*20*	*5E*	Pierce			

For Ecology Use: Date Received ____ Priority Date ____

SEPA: Exempt/Not Exempt ____ FERC License # ____ Dept. of Ecology ____

Date Accepted As Complete ____ By ____ Date Returned ____ By ____ WR-A ____

APPLICATION Appl No. ____

Section 5 CENTRAL WATER SYSTEM INFORMATION

A. Name of system, if named: _____

Briefly describe your proposed water system. (See instructions.)

See Application No. S2-29921

C. Do you already have any water rights or claims associated with this property or system? ☒ YES ☐ NO
PROVIDE DOCUMENTATION.

See Application No. S2-29921. Puget Sound Energy has a Water Right Claim No. 160322; the current water purveyors including the municipalities within Pierce, King, and southern portions of Snohomish Counties all have existing water rights as provided in their water system plans on file with the Department of Ecology. This application is made with a full reservation of rights as to PSE's existing diversion and storage rights.

Section 6 DOMESTIC/PUBLIC WATER SUPPLY SYSTEM INFORMATION
(Completed for all domestic/public supply uses.)

A. Number of "connections" requested: _____ Type of connection: _____

See Application No. S2-29921 and supporting documentation on demand analysis.

B. Are you within the area of an approved water system? N/A ☐ YES ☐ NO

If yes, explain why you are unable to connect to the system. ***As stated in the application S2-29921 and supporting documents, this water supply will be a regional water supply.***

mplete C. and D. only if the proposed water system will have fifteen or more connections.

C. Do you have a current water system plan approved by the Washington State Department of Health? ☐ YES ☒ NO
If yes, when was it approved? Prospective purveyors of the water will have approved plans. Please attach the current approved version of your plan.

D. Do you have an approved conservation plan? ☐ YES ☒ NO
If yes, when was it approved? See C. above. Please attach the current approved version of your plan.

Section 7 IRRIGATION/AGRICULTURAL/FARM INFORMATION
(Completed for all irrigation and agricultural uses.)

A. Total number of acres to be irrigated: N/A

B. List total number of acres for other specified agricultural uses:

Use _____ Acres _____
Use _____ Acres _____
Use _____ Acres _____

C. Total number of acres to be covered by this application: _____

D. Family Farm Act (Initiative Measure Number 59, November 3, 1977)
Add up the acreage in which you have a controlling interest, including only:
- I Acreage irrigated under water rights acquired after December 8, 1977;
- I Acreage proposed to be irrigated under this application;
- I Acreage proposed to be irrigated under other pending application(s).

1. Is the combined acreage greater than 2000 acres? ☐ YES ☐ NO
2. Do you have a controlling interest in a Family Farm Development Permit? ☐ YES ☐ NO
   If yes, enter permit no.: _____

Farm uses:
Stockwater – Total # of animals _____ Animal Type _____ (If dairy cattle, see below)
Dairy -- # Milking _____ # Non-Milking _____

Section 8: WATER STORAGE

Will you be using a dam, dike, or other structure to retain or store water? ☒ YES ☐ NO

NOTE: If you will be storing 10 acre-feet or more of water and/or if the water depth will be 10 feet or more at the deepest point; and some portion of the storage will be above grade, you must also apply for a reservoir permit. You can get a reservoir permit application from the Department of Ecology.

This application is being filed with a reservoir permit application and an application to appropriate from the White River, Application No. S2-29921.

Section 9: DRIVING DIRECTIONS

Provide detailed driving instructions to the project site:

Because of the size and scope of the project, specific driving instructions are not feasible. Please contact Mr. Schild's office for instructions to the particular location you wish to visit.

Section 10: REQUIRED MAP

A. ***See Attachment A of Application for storage permit.***

Section 11: PROPERTY OWNERSHIP

A. Does the applicant own the land on which the water will be used? ☐ YES ☒ NO

If no, explain the applicant's interest in the place of use and provide the name(s) and address(es) of the owner(s):

See Application S2-29921 and supporting documents.

B. Does the applicant own the land on which the water source is located: ☒ YES ☐ NO

If no, submit a copy of agreement:

I certify that the information above is true and accurate to the best of my knowledge. I understand that in order to process my application, I grant staff from the Department of Ecology access to the site for inspection and monitoring purposes. Even though I may have been assisted in the preparation of the above application by the employees of the Department of Ecology, all responsibility for the accuracy of the information rests with me.

W. A. Gaines, Vice-President, Energy Supply, Puget Sound Energy for Applicant — Date: 9/14/2000

Landowner for place of use (if same as applicant, write "same") — Date

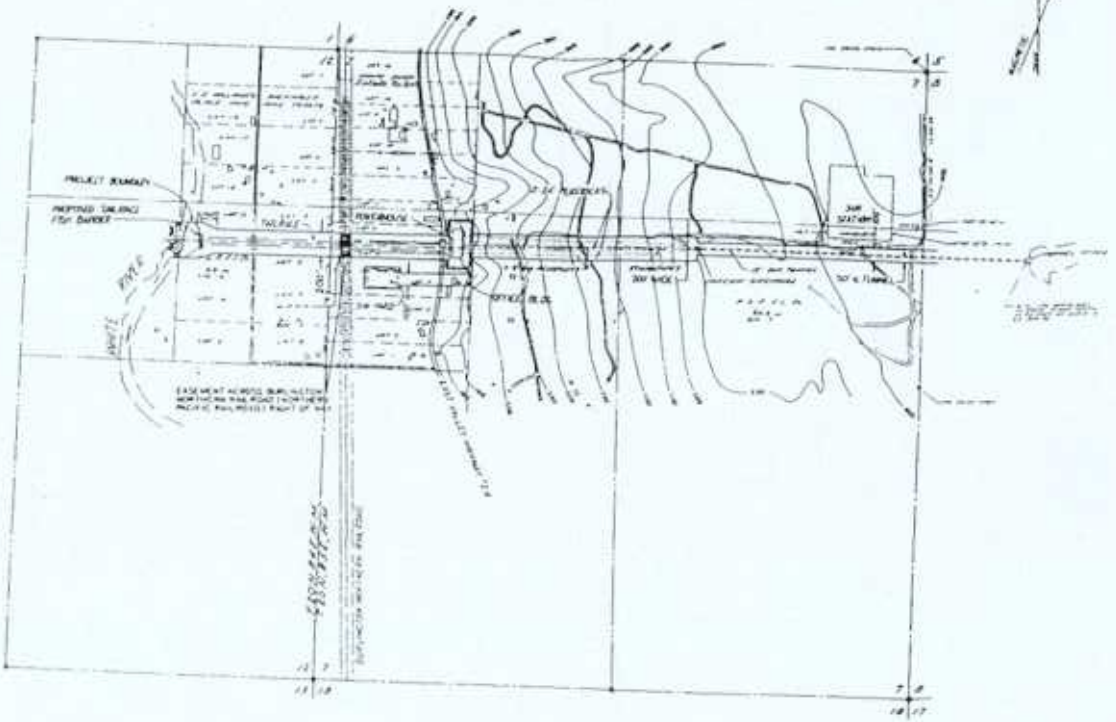
Use this page to continue your answers to any questions on the application. Please indicate section number before answer.

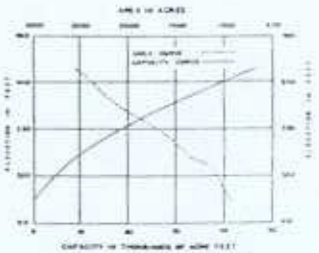
We are returning your application for the following reason(s):	
Examination fee was not enclosed.	APPLICANT PLEASE RETURN TO CASHIER, PO BOX 5128, LACEY, WA 98509-5128
Section number(s) ____ is/are incomplete	APPLICANT PLEASE RETURN TO THE APPROPRIATE REGIONAL OFFICE
Explanation:	
Please provide the additional information requested above and return your application by _____ *(date).*	

Ecology staff _____ **Date** _____

Ecology is an Equal Opportunity and Affirmative Action employer.

To receive this document in alternate format, contact the Water Resources Program at (360) 407-6604 (Voice) or (360) 407-6006 (TDD).





AREA & CAPACITY CURVES

T.20N., R.4 & 5E.W.M.
PIERCE CO., WASHINGTON

NOTE: ALL ELEVATIONS ARE GIVEN IN FEET MEAN SEA LEVEL (MSL), UNITED STATES COAST AND GEODETIC SURVEY DATUM.

12/83

PUGET SOUND POWER & LIGHT COMPANY APPLICATION FOR LICENSE WHITE RIVER PROJECT FERC PROJECT NO 2494
PROJECT BOUNDARY MAP EXHIBIT G-10
ATTACHMENT A

19317

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

APPLICATION FOR PERMIT
TO CONSTRUCT A RESERVOIR AND TO STORE FOR BENEFICIAL USE WATERS OF THE STATE OF WASHINGTON

$10.00 MINIMUM STATUTORY FILING FEE REQUIRED WITH APPLICATION
(GRAY BOXES FOR OFFICE USE ONLY)

APPLICATION NUMBER	W.R.I.A.	COUNTY	PRIORITY DATE	TIME	ACCEPTED

APPLICANT'S NAME
Puget Sound Energy Inc Contact: Edward R. Schild

TELEPHONE NUMBER
425-462-3022

DATE AND PLACE OF INCORPORATION, IF APPLICANT IS A CORPORATION
9/12/60 State of Washington Successor to Corporation Incorporated 7/8/12 State of Massachusetts

ADDRESS (STREET)	(CITY)	(STATE)	(ZIP CODE)
PO Box 97034 Mail Stop OBC-14N	*Bellevue*	*Washington*	*98009-9734*

1. **SOURCE, USE AND CAPACITY OF RESERVOIR**

NAME OF PROPOSED RESERVOIR
Lake Tapps Reservoir (existing)

NAME OF STREAM OR OTHER SOURCE FOR RESERVOIR SUPPLY	TRIBUTARY OF
White River	*Puyallup River*

USE(S) TO BE MADE OF IMPOUNDED WATER (IRRIGATION, POWER, FISH PROPAGATION, ETC.)
Public water supply and municipal water supply purposes including industrial and commercial purposes (see application S2-29921)

NUMBER OF ACRE FEET TO BE STORED AT MAXIMUM OPERATING LEVEL
46,700 acre feet

MONTHS OF YEAR DURING WHICH RESERVOIR IS TO BE FILLED
Year round – continuous

NUMBER OF ACRES TO BE IRRIGATED, IF USED FOR IRRIGATION
N/A

TYPE AND CAPACITY OF DIVERSION WORKS IF WATER IS TO BE WITHDRAWN
See Application S2-29921

LOCATION OF POINT OF DIVERSION OR WITHDRAWAL

ON ACCOMPANYING PLATS OR MAPS, ACCURATELY MARK AND IDENTIFY EACH POINT OF DIVERSION.
GIVE MEASURED DISTANCE AND BEARING, OR NORTH-SOUTH AND EAST-WEST DISTANCES FROM NEAREST SECTION CORNER.

COMPLETE EITHER A OR B	A	THE RESERVOIR IS TO BE LOCATED IN THE CHANNEL OF (NAME OF STREAM)
	B	THE RESERVOIR IS TO BE FILLED THROUGH A FEEDER CANAL (OR PIPELINE) HAVING ITS POINT OF DIVERSION (INTAKE) LOCATED AS FOLLOWS: *See Water Right Application S3-29921 Existing diversion facility under water right claim No. 188382 in the City of Buckley.*

DISTANCE AND BEARING TO SECTION CORNER
200 feet east and 200 feet south from NE ¼ Section corner of Section 2

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N.	RANGE (E. OR W.) W.M.	COUNTY
NE ¼ Section	*2*	*19*	*6E*	*Pierce*

IF THIS IS WITHIN THE LIMITS OF A RECORDED PLATTED PROPERTY, COMPLETE THIS SECTION

BLOCK | OF (GIVE NAME OF PLAT OR ADDITION)

LOCATION OF IMPOUNDING STRUCTURE

IMPOUNDING STRUCTURE LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N.	RANGE (E. OR W.) W.M.
See Below			

LEGAL SUBDIVISION OF LANDS IN WHICH THE SUBMERGED AREA IS TO BE LOCATED
(THE OUTLINE OF THIS LAND IS TO BE SHOWN ON THE MAP TO ACCOMPANY THIS APPLICATION)

The fifteen saddle dikes surrounding Lake Tapps Reservoir are located on the attached maps from PSE's 1983 White River Project FERC Project No. 2494 License Application, Exhibits G5-G9. SEE ATTACHMENT A.

DO YOU OWN THIS PROPERTY
☒ YES ☐ NO

IF NO, HAVE YOU SECURED FLOOD RIGHTS FOR LANDS TO BE INUNDATED?
☒ YES ☐ NO

CONSTRUCTION OF IMPOUNDING STRUCTURE

HEIGHT OF DAM (FEET)	LENGTH ON TOP (FEET)	LENGTH ON BOTTOM (FEET)	WIDTH ON TOP (FEET)
SEE LAKE TAPPS RESERVOIR EMBANKMENT CHARACTERISTICS-ATTACHMENT B.			

CONTINUED ON REVERSE SIDE

SLOPE OF FRONT OR WATER SIDE (NUMBER OF FEET HORIZONTAL TO ONE FOOT VERTICAL)	SLOPE OF BACK SIDE (NUMBER OF FEET HORIZONTAL TO ON VERTICAL)
SEE ATTACHMENT A	*SEE ATTACHMENT A*
HEIGHT OF DAM ABOVE WATER LINE AT MAXIMUM FLOOD FLOW (FEET)	TYPE OF CONSTRUCTION OF DAM AND MATERIAL OF WHICH IS TO BE BUILT
See Below	*SEE PAGES II-2 AND II-3, ATTACHMENT B*

structure is already constructed and operating under a vested water right for hydro-power. The height of the dikes above the water line is determined for n of the dikes. The height of the dike crests above the water elevation at full pool (elevation 543.00 ft msld) is calculated by subtracting 543.00 from the crest elevations in the Lake Tapps Reservoir Embankment Characteristics. Attachment B. The dikes are subject to FERC's exclusive jurisdiction; dike safety is regulated by FERC pursuant to 18 CFR § 12.

There is no spillway at Lake Tapps Reservoir because it is an off channel storage project with controlled inlet.

NUMBER OF ACRES TO BE SUBMERGED BY RESERVOIR WHEN FULL	MAXIMUM DEPTH (FEET)	APPROXIMATE AVERAGE DEPTH (FEET)
2700 acres at normal full pool, at 543.00 ft msld	*91 ft.*	*25 ft at full pool*
ESTIMATED COST OF PROPOSED WORK - EXISTING RESERVOIR	CONSTRUCTION WILL BEGIN ON OR BEFORE (DATE)	
No additional costs are expected for the physical storage of the water for municipal supply	*N/A*	
CONSTRUCTION WILL BE COMPLETED ON OR BEFORE (DATE)		
Reservoir is complete and currently used under a vested water right for hydropower purposes.		

SIZE AND TYPE OF OUTLET STRUCTURE

The outlet structure is described in Sections 2.3, 2.4, and 2.6, pages A-7 through A-9 of the 1983 FERC License Application. See Attachment C.

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED (IF DIFFERENT THAN ABOVE)

COPY LEGAL DESCRIPTION FROM DEED: OR ATTACH COPY OF DEED. TAX STATEMENT DESCRIPTIONS NOT ACCEPTABLE.
ALSO OUTLINE THIS PROPERTY ON THE MAPS OR PLATS SUBMITTED WITH THIS APPLICATION

See Application S2-29921

DO YOU OWN THIS PROPERTY?	IF NO, GIVE NAME AND ADDRESS OF OWNER
☐ YES ☒ NO	*N/A*

This application is being filed with an application for appropriation of water from the White River, See application No. S2-29921, and an application for a secondary permit to divert water from Lake Tapps. Lake Tapps is an existing reservoir that is used for the applicant's current hydro electric power plant that operates under a vested water right. The storage of water in Lake Tapps Reservoir for public and municipal water supply purposes will be under a right that is in addition to and not in derogation of PSE's existing diversion and storage rights; this application is made with a full reservation of rights as to PSE's existing diversion and storage rights.

W. A. Haines, Vice-President, Energy Supply Puget Sound Energy
APPLICANT

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

This is to certify that I have examined the foregoing application together with the accompanying maps and data and return the same for correction or completion as follows: _____

In order to retain its priority, this application must be returned to the Department of Ecology, with corrections, on or before _____, *20*_____

Witness my hand this *day of* _____ *20*_

_____
Department of Ecology

ake Tapps Embankment Characteristics

Dike Number	Washington ID Number	Crest Elevation (ft)	Base Elevation (ft)	Embankment Height (ft)	Embankment Width (ft)	Crest Length (ft)
	WA418	550.8	533.0	17.8	47	200
2A	WA419	545.5	534.0			350
2B	WA420	547.1	530.7			300
3	WA421		530.3			500
4	WA296					4000
5	WA422				55	500
6	WA423		519.5	26.1	51	500
7	WA435	546.2	540.0	6.2	52	200
8	WA424	545.9	525.8	20.1	55	350
9	WA425	545.8	530.6	15.2	55	200
10	WA426	546.0	526.6	19.4	48	700
11	WA427	545.4	522.8	22.6	53	1500
12	WA428	545.0	531.1	13.9	42	1250
13	WA429	547.0	539.3	7.7	20	350
	WA430	547.2	524.0	23.2	74	1450
	WA431	547.4	524.0	23.4	53	1500

ATTACHMENT B

Currently, Wolslegal and Dingle Basins are actively worked for sediment removal. Sediment removed from the basins is stockpiled adjacent to the canal. Stockpiled sediment at Wolslegal Basin is sold for commercial and residential uses.

The dike adjacent to Wolslegal and Wickersham Basins is approximately 2,500 feet long and is oriented roughly east-west. The crest of the dike is at elevation 668 to 673 fmsl with a width of 20 to 25 feet. The outboard slope of the dike is at an angle of approximately 35 degrees down to the toe which is at an elevation of approximately 635 to 645 fmsl. The inboard dike slope angles between 35 to 45 degrees down to the canal. The dike fill material is reported to be loose to very loose silty sand with some gravels and cobbles, and founded on alluvium and mudflow deposits (Woodward-Clyde 1995).

A concrete lined rock chute is also present at Wolslegal Basin. This chute consists of a 72-inch-diameter concrete intake conduit that discharges to a concrete spillway.

The dike adjacent to McHugh Basin is approximately 1,400 feet long and is oriented roughly southeasterly. The crest of the dike is at elevation 668 to 670 fmsl with a width of 35 to 45 feet. The outboard slope of the dike is at an angle of approximately 35 to 50 degrees. The inboard dike slope angles between 20 to 40 degrees down to the canal. The dike fill material is reported to be loose to very loose silty and clayey sands with gravels and cobbles, and founded on alluvium and mudflow deposits (Woodward-Clyde 1995).

Printz Basin

Printz Basin is located between Lake Tapps and the buried pipeline and was constructed as the final sedimentation basin in the flowline. Two dikes (Dikes 14 and 15) are located on the basin. The Printz Basin Dikes are comprised primarily of two dike fill materials. The upper dike fill is very loose to loose fine sand with silt to silty sand. The lower dike fill is primarily very loose to loose gravelly fine to coarse silty sand. Dike dimensions are listed on **Table II-1**.

Lake Tapps Dikes

Lake Tapps is impounded by a series of 13 dikes ranging in length from a few hundred to a few thousand feet and from a few feet in height up to 40 feet. The lake, once a series of smaller lakes (including 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 is approximately 4.5 miles long and 2.5 miles wide. The lake has an area of 2,700 acres and a storage capacity of 46,700 acre-feet at normal maximum pool elevation (543 feet fmsl) (Puget Power 1983b). The main outlet of the

reservoir is through a 12-foot-diameter, concrete lined tunnel that leads to a forebay from which penstocks divert flow through the White River powerhouse.

As previously discussed, there are 13 dikes that impound the reservoir. The dikes contain approximately 600,000 cubic yards of material (Puget Power 1983a). Documentation developed during the construction of the dikes indicate that the topsoil was first stripped to the impervious strata (till) beneath each dike. Steam rollers were then used to prepare the foundation. Fill material, consisting of cemented gravels obtained from nearby excavations, was transported to the site by dump cars on railway trestles. Large scrapers and donkey engines were then used for placement of the fill.

The dikes were then finished using horse-drawn slip scrapers and wheelers. Initial design specifications required that the dikes have a minimum crest width of 40 feet, upstream slopes of 2.5 horizontal to 1 vertical, and downstream slopes of 2 horizontal to 1 vertical. Subsequent field investigations conducted by Ebasco Services Incorporated in 1983 (Puget Power 1993) and Squire Associates (**Appendix D**) have further defined the characteristics of each dike. The dike fill material typically consists of loose to medium dense silty sandy gravel with silt or clay. The dike dimensions are included in **Table II-1**.

B. SPILLWAY

The Diversion Dam is essentially a continuous spillway and is described in **Section IIA**. There are no other spillway structures on Lake Tapps. Discharge of flow from Lake Tapps if the powerhouse is out of service can be accomplished using four 16-inch penstock drain valves.

C. POWERHOUSE

The concrete powerhouse building is 85 feet wide, 225 feet long, and 55 feet high.

The initial two-unit development at the powerhouse was completed in 1911 and produced 25,000 kVA. The capacity was increased by 7,600 kVA in 1917 by rewinding the existing two units. A third 20,000-kVA unit was added in 1924. An increase of 5,000 kVA was accomplished in 1952 and 1956 by rewinding units 3 and 4, respectively, thus giving a total rated capacity of 25,000 kVA for each unit. The present rated generator capacity is 82,600 kVA. Each generator is directly connected to a single horizontal Francis-type turbine that operates 360 revolutions per minute (RPM) (Puget Power 1983b).

A conduit for collection of downstream migrants is provided and extends the entire length of the fish screens. Downstream migrants enter into the conduit and pass through a 2.0 foot diameter pipeline which discharges into a bypass channel that returns the fish to the White River. The downstream migrants enter the conduit, thus bypassing the Lake Tapps reservoir, and the powerhouse.

A gravity operated emergency gate at the fish screens is located in the south bank of the flowline. This gate is tripped automatically by differential water pressure if the screens become clogged by debris. In case of a trip, an alarm carried over telephone wires is sounded in the powerhouse.

2.2.5 Timber Lined Canal

The canal between Dingle and Printz Basins, the last basin in the flowline, is an 18,600-foot long canal of which 11,800 feet is timber lined. The cross section of the lined portion is rectangular with dimensions of 26 feet in width and 7 feet in depth.

2.6 Unlined Canal

From Printz Basin, an unlined canal approximately 2,600 feet long conveys flows to Lake Tapps. Typically, the unlined canal is 13 feet deep and 74 feet wide (measured across the top) and is parabolic in cross section. Flow depth and width vary with Lake Tapps elevations

2.3 Existing Project Reservoir - Lake Tapps

Lake Tapps serves as the reservoir for the Project. It is approximately 4.5 miles long and 2.5 miles wide. Water diverted from the White River through the diversion system previously described flows into the lake at the south end. The main outlet from the lake is through the White River Powerplant. This outlet, located on the northwestern side of the lake, begins as a 12-foot-diameter, concrete-lined tunnel that leads to a forebay from which the penstocks extend. The only other outlet from the lake is a 2-foot-diameter pipe which is used to satisfy a 1 cfs downstream water right, but which can discharge 5 to 10 cfs if fully opened. The reservoir has no spillway.

Lake Tapps originally consisted of several natural lakes; Lake Tapps, Lake Kirtley, Crawford Lake, and Church Lake. By constructing earthen dikes totalling two and one half miles in length, the water level was raised 35 feet above the original elevation. This created the present reservoir, Lake Tapps, having a surface area of approximately 2,700 acres and an active storage capacity of approximately 46,700 acre-feet at normal maximum pool elevation 543 fmsl. The active storage is based on normal minimum pool elevation 515 fmsl.

2.4 Existing Tunnel

2.4.1 Tunnel Intake

The portal to the main tunnel at the outlet of Lake Tapps reservoir is screened with a vertical rack bar screen, 50 feet high and [illegible] feet wide. The bars are provided with motor operated cleaning devices divided into six separate bays with selective clutches. Debris is deposited on the tunnel intake deck and disposed of manually.

The tunnel entrance is provided with a Stoney gate, 12.5 feet high by 12 feet wide. A 24 inch square Stoney bypass gate is provided in the face of the main gate for filling the tunnel. The main gate and the auxiliary gate are motor operated. Vertical air shafts lead from the gate house to the tunnel in back of the gate for venting during the closing of the main gate.

2.4.2 Tunnel Structure

The concrete lined tunnel, located on the northwest shore of the reservoir, is 12 feet in diameter and 2,842 feet in length. The invert elevation is 490 fmsl at the tunnel intake and drops to elevation 477 fmsl at the forebay well.

2.5 Existing Forebay and Penstock

The forebay well, 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 this point.

Three 96-inch diameter steel penstocks, each controlled by a 96-inch diameter standard Coffin sluice gate, direct the flow from the west side of the forebay well to the powerhouse below. Three of the penstocks are 2,135 feet long. Just below the forebay, two of the penstocks are tapped forming a supply to a fourth penstock, which is 1,791 feet long. Two 84-inch diameter butterfly valves control the flow into the fourth penstock. These valves and the sluice gates are motor operated either locally from the gatehouse or remotely from the powerhouse control panels.

2.6 Existing Powerhouse

The concrete powerhouse building is 85 feet wide, 225 feet long and 55 feet high.

The initial two unit development at the powerhouse was completed in 1911 and produced 25,000 kVA. The capacity was increas.. by ,,600 kVA in 1917 by rewinding the existing two units. A third 20,000 kVA unit was installed in 1918, and a fourth 20,000 kVA unit was added in 1924. An increase of 5,000 kVA was accomplished in 1952 and 1956 by rewinding units 3 and 4, respectively, thus giving a total rated capacity of 25,000 kVA for each unit. The present rated generator capacity is 82,600 kVA. Each generator is directly connected to a single horizontal Francis-type turbine that operates at 360 revolutions per minute (RPM).

2.6.1 Hydraulic Turbines

The powerhouse contains four reaction-type horizontal shaft turbines that operate at 360 RPM. Units 1 and 2 are rated at 18,000 HP and Units 3 and 4 are rated at 23,000 HP. Speed is controlled by four gate shaft type governors, the oil pressure being supplied by individual 50 gallon per minute (GPM) governor oil pumps. Each unit is provided with a 30 inch relief valve discharging water from the scroll cases into the tailrace in case of a sudden closing of the gates. Four 78 inch motor operated butterfly valves are located just upstream from the turbines. Two 8 inch bypass valves, one hydraulically operated and the other manually operated, are used to equalize the water pressure during the operation of each butterfly valve.

EXHIBIT B

Large supplies of ground water are available from the post-glacial alluvium deposited in the lower White River valley. Yields of 500-1,500 gpm are typical for wells in the flood plain alluvium along the White River. In the Auburn area, exceedingly high yields in excess of 1,500 gpm can be obtained from wells tapping the deeper alluvium.

Although substantial ground water resources are present in the Project area, the actual utilization of this resource is confined primarily to the larger community systems due to economic considerations. The presence of the Osceola mud flow over much of the area generally necessitates well depths of 200 feet or more for reliable supplies. In addition, state policies generally favor development of areawide water supply systems in order to assure good water quality control. In the Lake Tapps area, this has resulted in a number of former individual wells being relegated to non-potable uses, such as lawn irrigation, with potable water supplies being imported from the larger adjoining water districts and communities, such as Bonney Lake. To the extent that the larger communities are dependent on ground water, they tap the more productive and deeper aquifers along the Lower White, Green or Puyallup valleys. For example, the cities of Sumner and Puyallup both utilize Salmon Springs 1 mile northeast of Sumner for municipal supply. The city of Auburn's utilization of Coal Creek Springs, with a yield of 4,200 gpm (Luzier, 1969), has eliminated what was formerly a highly productive salmon stream tributary to the lower White River. The city of Enumclaw utilizes Boise Creek Springs, 600-1,000 gpm, and Watercress Springs, 800 gpm (Luzier, 1969). In many instances, the larger communities are in part dependent on imported purveyed water supplies, either as a primary source or as backup.

The continued operation of the White River Project should not alter the viability of these existing ground water supplies. Indeed, insofar as leakage from Lake Tapps supports the discharge at nearby Salmon Springs, the continued diversion of water enhances existing ground water supplies.

2.4 Existing Water Uses and Project Water Rights

Instream uses of water in the vicinity of the Project include power production, fish and wildlife, recreation, aesthetics, and stock watering. Power production occurs at the Project's Dieringer power plant at the present time. Under this license additional power production will occur on the Project flow line as well. The assimilative capacity of

the surface waters of Boise Creek and the White River below the diversion dam is also used for the disposal of treated municipal and industrial waste discharges. In addition to the aforementioned instream uses, surface waters in the Project area are diverted and utilized for irrigation, stock watering, and domestic, municipal and industrial water supplies (WDOE, 1980).

For the White River Project, Puget holds a vested year-around water right claim to 2,000 cfs from the White River at the current point of diversion, within the NE 1/4 of the SW 1/4, Section 25, T. 20 N., R. 7 E. The right is based on claims dated April 17, 1895; April 27, 1901; and from the adjudicated Pacific Coast Power Company vs. Peter Quilquilion, dated April 13, 1910. Puget Power, or its predecessors, has, since 1911, consistently diverted this amount of water, subject to the availability, passing 30 cfs, which is required to be released downstream at all times under terms of the April 13, 1910, Pierce County Superior Court decree (No. 28120). This claim for riparian and water rights was acquired prior to the State of Washington Water Code of June 15, 1917. This water rights claim was registered in June, 1974, and was assigned a water right claim #160822 by the State of Washington Department of Ecology.

Other water rights held in connection with the Project include a registered water rights claim (#160812) to divert an average of 43 gpm from an unnamed spring in the NE 1/4 SW 1/4, Section 7, T. 20 N., R. 5 E. This water is used for domestic water for the power plant and three Company houses owned by Puget Power. The Company also claims rights for water storage in Lake Tapps in the amount of 46,700 acre-feet. The basis for this storage right is under claims dating to October 30, 1902; November 3, 1902; and August 3, 1909, and riparian and property rights acquired prior to the establishment of the state water code of June 15, 1917. Under this claim, a valved release of 1 cfs is provided from Lake Tapps to a former outlet stream to provide water for stock watering and irrigation.

Puget Power makes no other consumptive use of the Project waters; however, unregistered usage of the waters of Lake Tapps for lawn and garden watering is known to occur, and shallow wells along the 47 miles of lakeshore may draw more or less directly from the lake. Since much of the water so used is returned to the lake, no attempt has been made to quantify any consumptive water loss due to this usage. A water budget for Lake Tapps suggests that between 1963 and 1981, the average outflow from the reservoir at 949 cfs exceeded the measured canal inflow by 37 cfs. Thus,

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Appendix B
Cascade Recommended Flow Regime

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A. Defined Terms for the Recommended Flow Regime

1. "Buckley Gage" shall mean U.S. Geological Service ("USGS") streamflow station No. 12099200 - White River above Boise Creek at Buckley, WA, or any other USGS streamflow station subsequently designated by agreement of the Parties.

2. "Control Date" shall mean the date upon which the transaction between Cascade and PSE closes or the date upon which Cascade becomes the Operator as defined in Section A.8, whichever occurs first.

3. "Fall Drawdown" shall mean the reduction of the level of Lake Tapps Reservoir in the fall to expose portions of the lake bed for the purpose of preventing macrophyte growth or for the purpose of conducting maintenance at Lake Tapps Reservoir and/or Associated Facilities.

4. "Lake Tapps Reservoir" means the waters and the real property below 545 feet msl, more particularly described in the recorded Deed No. 1686523 executed on June 22, 1954, by Grantor, Puget Sound Power & Light Company for the benefit of Grantee, the Lake Tapps Development Co., Inc., and recorded at Pages 485-495 of Volume 1063, Office of County Auditor for Pierce County, Washington ("1954 Deed").

5. "Mean Sea Level" or "msl" when used herein refers to the elevation of Lake Tapps Reservoir above the mean sea level established by the National Geodetic Vertical Datum of 1929.

6. "Minimum Flow" or "MF" means the minimum streamflow as measured at the Buckley Gage below which Cascade will not cause the White River to fall as the result of diversions from the White River into Lake Tapps Reservoir.

7. "Normal Full Pool" means a water level at Lake Tapps Reservoir between 541.5 msl and 543 msl, as measured at USGS reservoir gaging station No. 12101000, or any other USGS reservoir gaging station subsequently designated by the Parties.

8. "Operator" means Cascade and/or a Qualified Operator as defined in Section A.9. Cascade shall remain responsible for implementing all of its obligations under this Agreement, notwithstanding any contract into which it may enter for operation of some or all the Project.

9. "Qualified Operator" shall mean PSE, the United States Army Corps of Engineers, or another entity that is reasonably qualified to operate the Diversion Dam.

10. "Ramping Rate" is the rate of change in River Stage, measured in inches per hour, at which the White River water elevation rises or lowers in response to changes in the quantity of water diverted into Lake Tapps or discharged from Lake Tapps through the Tailrace.

11. "Recommended Flow Regime" refers collectively to the Minimum Flows, the Diversion Optimization Plan and the Ramping Rate established in Sections B. 2 – B.3 of this Agreement.

12. "Spring Refill" shall mean the late winter or early spring refill of Lake Tapps Reservoir to Target Elevations.

13. "Tailrace" means the canal through which water from Lake Tapps is discharged into the White River.

14. "Target Elevations" means the target surface water elevation of Lake Tapps Reservoir established under Section B.5. and measured at USGS reservoir station No. 12101000, or any other USGS gaging station subsequently designated by agreement of the Parties.

B. Recommended Flow Regime

1. Cascade shall divert water and/or contract with a Qualified Operator to divert water from the White River into Lake Tapps Reservoir in accordance with the Diversion Optimization Plan in Section B.3 and the Ramping Rates in Section B.4 to achieve or exceed the Minimum Flows in Section B.2.

2. Minimum Flows.

   Water may be diverted from the White River to Lake Tapps Reservoir if and only if the diversion does not reduce the instream flow of the White River (measured at the Buckley Gage) below the Minimum Flows (MF) established by the Minimum Flow Table set out below (Table B-1). Notwithstanding the foregoing, to avoid stranding fish in the diversion canal between the headgate and fishscreens, Cascade may divert up to 20 cfs of water from the headgate and through the fishscreens during those periods of time that the flow is below the MF, set out in Table B-1, due to natural flow conditions.

Table B-1: Minimum Flow

Time Period	Minimum Flows ("MF")	Time Period	Minimum Flows ("MF")
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

3. Diversion Optimization Plan

Unless otherwise agreed, the following Diversion Optimization Plan shall be implemented on the Control Date as defined in Section A.2:

a. On an annual basis, beginning on February 15 and continuing until Lake Tapps Reservoir is refilled to Normal Full Pool in accordance with the Spring Refill Plan, or until July 1, whichever is earlier (the "Refill Date"), water may be diverted into Lake Tapps Reservoir in an amount not to exceed 1000 cfs if and only if the instream flow of the White River at the Buckley Gage exceeds the MF established by Table B-1.

b. On an annual basis, beginning on the Refill Date, (as described in Section B.3.a), until September 15 or the subsequent date the Operator commences drawing down the water level of Lake Tapps Reservoir, whichever is later ("Fall Drawdown Date"), water may be diverted into Lake Tapps Reservoir in an amount not to exceed 400 cfs if and only if the instream flow of the White River at the Buckley Gage exceeds the MF established by Table B-1.

c. On an annual basis, beginning on the Fall Drawdown Date (as defined in Section B.3.b) until February 15, water may be diverted into Lake Tapps Reservoir in an amount not to exceed 150 cfs if and only if the instream flow of the White River at the Buckley Gage exceeds the MF established by Table B-1.

d. To maintain desired elevations in Lake Tapps Reservoir while minimizing diversions from the White River, Cascade shall limit discharges from Lake Tapps Reservoir into the Tailrace to no more than 50 cfs, which is the estimated leakage through the powerhouse under current conditions, except during the Fall Drawdown. If technically feasible and if the associated cost is not unreasonable, Cascade shall at the point in time when it modifies the Lake Tapps Reservoir outlet structures in conjunction with development of the intake for the water treatment plant, endeavor to reduce the amount of leakage and further decrease discharges from Lake Tapps Reservoir outside of the Fall Drawdown period.

e. All diversions from the White River and all discharges from the Tailrace, shall comply with Sections B.3.a. through B.3.d. above, and shall further comply with the Ramping Rate in Section B.4.

f. The diversions provided for under Sections B.3.a. through B.3.c. above shall at no time result in the reduction of streamflow in the White River below the MF as established in Section B.2.

4. Ramping Rate

The water intake facility to Lake Tapps Reservoir and the discharge through the Tailrace from Lake Tapps Reservoir shall, at all times:

a. Comply with applicable law;

b. Be operated so that the Ramping Rate does not exceed one inch per hour (increase or decrease) as measured respectively at the Buckley Gage and the Lake Tapps Diversion Gage at Dieringer, USGS Gaging Station No. 12101100; and

c. Be operated so that between February 16 and June 15 of each year, daylight downramping shall not be permitted. Daylight shall be defined for this purpose as commencing one hour before sunrise and ending one hour after sunset.

5. Target Lake Elevation

a. Subject to compliance with the Minimum Flows, the Diversion Optimization Plan and the Ramping Rate:

(1) Cascade will endeavor to maintain the Lake Tapps Reservoir elevation between April 15 and September 14 so that the Lake Tapps Reservoir target water surface elevation is Normal Full Pool;

(2) Between September 15 and November 30 Cascade may draw down the Lake Tapps Reservoir water surface elevation to 530 feet msl;

(3) Cascade will endeavor to maintain the Lake Tapps Reservoir elevation between December 1 and February 14 so that the Lake Tapps Reservoir target water surface elevation is 530 feet msl; and

(4) Between February 15 and July 1, Cascade may fill Lake Tapps Reservoir to Normal Full Pool.

C. Fall Drawdown and Spring Refill Plans

1. Each year prior to the commencement of the Fall Drawdown, Cascade shall consult with interested parties (such as the Tribes, relevant federal and state fishery resource agencies, Pierce County and the Lake Tapps residential community) on measures, consistent with the Recommended Flow Regime, to accomplish the drawdown and refill of Lake Tapps Reservoir in a manner that minimizes potential adverse impacts on salmonids in light of anticipated hydrological conditions ("Annual Drawdown Plan").

2. Each year prior to the Spring Refill, Cascade shall consult with interested parties to develop a plan for the Spring Refill that, among other things, takes into account anticipated hydrological conditions that minimize impacts on fishery resources while seeking to achieve Normal Full Pool consistent with Section B.5.a.(1) ("Annual Refill Plan"). The Annual Refill Plan shall include provisions for establishing the date for beginning Spring Refill, the elevation within the Normal Full Pool range at which time Cascade shall reduce diversion in accordance with Section B.3.b., and the target date for achieving the appropriate Normal Full Pool.

D. Water Right Trust

1. Cascade shall transfer that portion of the perfected hydropower water right that it obtains from PSE in excess of the quantity of water that it is permitted to divert into Lake Tapps under the terms of this Agreement ("Trust Water") to the State Water Trust for the purpose of providing instream flows in the White River. The transfer will be in a form acceptable to the Puyallup Tribe and the Muckleshoot Tribe and will be in perpetuity. The transfer will be revocable only by the written agreement.

2. In the event that Cascade fails to or is unable to complete the transfer of the Trust Water to the State Water Trust, Cascade shall transfer undivided interests in the Trust Water to the Puyallup Tribe and the Muckleshoot Tribe upon their request. If Cascade does transfer the Trust Water to the Puyallup Tribe and the Muckleshoot Tribe, the Puyallup Tribe and the Muckleshoot Tribe agree to dedicate the Trust Water to instream flows. Cascade, the Puyallup Tribe and the Muckleshoot Tribe shall work together and use best efforts to take all actions and implement all such measures as may be available to them jointly or individually to prevent the out of stream or consumptive use of the Trust Water by third parties.

3. The Trust Water dedication for instream flow purposes to the State Water Trust or the Tribes shall not affect the right to use twelve (12) cfs for fish hatchery operations under Certificate of Change to Water Right Claim No. 60822, dated April 15, 1994. Cascade shall continue to hold said water right and make such water available for hatchery operation by the Muckleshoot Tribe as provided in the Certificate of Change.

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Appendix C
Distribution List

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CASCADE WATER ALLIANCE
LAKE TAPPS RESERVOIR ISSUANCE OF NEW MUNICIPAL WATER RIGHTS AND CHANGE OF EXISTING USE FOR CLAIM NO. 60822

NOTICE OF DETERMINATION OF SIGNIFICANCE AND REQUEST FOR COMMENTS ON SCOPE OF ENVIRONMENTAL IMPACT STATEMENT

DISTRIBUTION LIST

CASCADE WATER ALLIANCE MEMBERS

City of Bellevue
Covington Water District
City of Issaquah
City of Kirkland
City of Redmond
Sammamish Plateau Water & Sewer District
Skyway Water & Sewer District
City of Tukwila

LOCAL GOVERNMENTS

King County DNR/P – Water Policy
Seattle and King County Public Health
City of Auburn
City of Kent
Pierce County Office of the County Executive
Pierce County Planning and Land Services
City of Buckley
City of Bonney Lake
City of Sumner

STATE OF WASHINGTON

Department of Ecology SEPA Register
Department of Ecology Northwest Regional Office
Department of Ecology Southwest Regional Office
Department of Health
Department of Archaeology and Historic Preservation
Department of Natural Resources
Department of Transportation
Department of Fish and Wildlife
Parks and Recreation Commission
Utilities and Transportation Commission
Puget Sound Clean Air Agency
Interagency Committee for Outdoor Recreation
Office of the Attorney General

FEDERAL AGENCIES

U.S. Army Corps of Engineers, Seattle District
Bureau of Indian Affairs
U.S. Environmental Protection Agency, Region 10
Federal Emergency Management Agency, Region 10
U.S. Fish and Wildlife Service
U.S. Geological Survey
NOAA Fisheries - National Marine Fisheries Service
Natural Resource Conservation Services

TRIBES

Muckleshoot Indian Tribe
Puyallup Tribe of Indians
Duwamish Tribe
Tulalip Tribe
Snoqualmie Tribe of Indians

LIBRARIES

King County Library System, Redmond Regional Branch
King County Library System, Bellevue Regional Branch
King County Library System, Issaquah Branch
King County Library System, Tukwila Branch
King County Library System, Covington Branch
King County Library System, Auburn Branch
Pierce County Library System, Bonney Lake
Pierce County Library System, Sumner
University of Washington Suzzallo Library

SPECIAL INTEREST GROUPS

Washington Environmental Council
Seattle Audubon Society
Trout Unlimited
Washington Trout
Sierra Club
Lake Tapps Task Force
Citizens for Clean Drinking Water
League of Women Voters

WHOLESALE WATER PURVEYORS

Seattle Public Utilities
Tacoma Water
Cedar River Water and Sewer District
Fall City Water District
Shoreline Water District
East King County Regional Water Association
South King County Regional Water Association

NEWSPAPERS*

Daily Journal of Commerce
Seattle Times
Tacoma News Tribune

OTHER

Puget Sound Energy
Aspect Consulting, LLC
Perkins Coie, LLP
HDR Engineering, Inc.
Inslee Best, PS
Lake Tapps Community Council
Eglick Kiker Whited, PLLC

Notes:

(1) A Notice of Determination of Significance and Request for Comments on Scope of Environmental Impact Statement is being published in the newspapers as noted with "*."