



Fact Sheet – Lake Tapps Reservoir Water Rights and Supply Project

Project Proponent

The objective of the Lake Tapps Reservoir Water Rights and Supply Project (the Project) is to allow the Cascade Water Alliance (Cascade) to provide – in a coordinated, cost-effective, and environmentally responsible manner – a safe, reliable, high quality municipal water supply that will meet the current and projected demands of its Members and the Central Puget Sound Region from a source that is sufficiently large, certain, and non-speculative, and is available both for immediate, short-term use and for long-term use over a 50- to 100-year planning period. Cascade is a non-profit corporation composed of municipal corporations and special-purpose municipal corporations in King County that are party to an Interlocal Agreement entered into under the authority of the Interlocal Cooperation Act for the purpose of its Members working together to plan, develop, and operate a water supply system and regional assets that will meet Cascade’s Members’ current and future drinking water needs. 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

Project Description

Project Location and Setting

Lake Tapps Reservoir is located in northern Pierce County, Washington, approximately 30 miles southeast of Seattle and 18 miles east of Tacoma. The reservoir, approximately 4.5 miles long and 2.5 miles wide, is partially surrounded by private residences and public and private parks.

Background

Puget Sound Energy (Puget) built Lake Tapps Reservoir and the associated hydroelectric power facilities in 1911, generating power there until January 2004. Hydroelectric operations involved diverting a portion of the water in the White River into Lake Tapps Reservoir for storage, sending the water through a powerhouse and turbines to generate electricity for the electrical network that supplied Seattle and Tacoma, and returning the water to the White River via a tailrace canal.

Because of its concerns about the economic viability of maintaining the White River Hydroelectric Project (Hydro Project) for power production, Puget, together with other members of the Lake Tapps Task Force, considered whether the project could serve as a regional water supply for current and future populations' needs. To facilitate development of Lake Tapps Reservoir as a source of municipal water supply, Puget submitted three municipal water right applications to the Washington State Department of Ecology (Ecology) in 2000 and a change/transfer application for its pre-code water right claim (Puget Claim) in 2005. These four applications are referred to collectively as "the Applications".

When Ecology receives an application for a new water right permit or for a change to or transfer of an existing water right permit, Ecology is required to investigate the application and to document its findings and action for public review. Ecology describes its findings and actions in a Report of Examination (ROE). Ecology published the 2006 Draft ROE and took public comment. The 2006 ROE was drafted following a remand of the earlier ROEs on the three municipal water right applications by the Pollution Control Hearings Board and the submittal of the change/transfer application by Puget.

In February 2008, Cascade's Board of Directors approved an Asset Purchase Agreement for the acquisition of Lake Tapps Reservoir, the Puget Claim, the Applications, and associated Hydro Project facilities. On December 18, 2009, the purchase and sale under the Asset Purchase Agreement was completed and Cascade became the owner of the Project.

A Draft Environmental Impact Statement (Draft EIS) for the Project was issued by Cascade on January 29, 2010. Comments on the Draft EIS are invited and should be postmarked or e-mailed on or before March 15, 2010. Written comments should be addressed to:

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

The Draft EIS is available to the public online at www.cascadewater.org. The Draft EIS is also available on compact disc (CD) for a cost of \$5, or printed copy for \$200. Draft EIS technical reports, background data, adopted documents, and materials incorporated by reference for the Draft EIS are also available for public review at Cascade's Bellevue office. Contact Cascade at the above address or call 425-453-0930.

Copies of the Draft EIS are also available for review at the following libraries:

King County Library System

Redmond Regional Branch
Bellevue Regional Branch
Issaquah Branch
Tukwila Branch
Covington Branch
Auburn Branch

Pierce County Library System

Bonney Lake
Sumner

University of Washington Suzzallo Library

Cascade anticipates that the Final EIS will be issued in April or May 2010.

Cascade's Proposed Action

The Proposed Action is for Cascade's Board of Directors to approve Cascade's operation of the Project and to request approval by Ecology of the Applications. The three basic elements of the Project operation are as follows:

- Cascade would divert water from the White River into Lake Tapps Reservoir, store water in, and withdraw water from the reservoir for municipal water supply purposes.
- Cascade would operate the Project in a manner to provide enhanced flows in the White River (Recommended Flows) consistent with the 2008 White River Management Agreement (WRMA) with the Puyallup Tribe of Indians and the Muckleshoot Indian Tribe.
- Cascade would operate the Project to store water and maintain the levels of Lake Tapps Reservoir to support recreation consistent with 2009 Agreement Regarding Lake Tapps Between Cascade Water Alliance and the Lake Tapps Community.

More specifically, and as described in Table FS-1 and Figure FS-1, Ecology's approval of the Applications would permit the following:

1. Cascade would divert water from the White River into Lake Tapps Reservoir at an average annual rate of up to 75 cubic feet per second (cfs) (54,300 acre-feet per year) for municipal, industrial, and commercial water supply purposes¹. Cascade would divert water from the White River at a maximum instantaneous rate of up to 1,000 cfs (this maximum rate would vary by season and would be lower at other times of the year).
2. Cascade would store up to 46,700 acre-feet of water in Lake Tapps Reservoir for municipal, industrial, and commercial water supply purposes.

¹ The average flow rate of 75 cfs may be increased to an average flow rate of 82 cfs. The 7 cfs is referred to as "Regional Reserved Water."

3. Cascade would withdraw water from Lake Tapps Reservoir at an average annual rate of up to 75 cfs (54,300 acre-feet per year) for municipal, industrial, and commercial water supply purposes. Cascade would withdraw water from Lake Tapps Reservoir at a maximum instantaneous rate of 135 cfs.

4. Cascade would divert water from the White River, store water in Lake Tapps Reservoir, and release water through the tailrace canal back to the White River in support of the following purposes: hydropower and other beneficial uses including recreational reservoir levels; winter reservoir levels; fish and wildlife habitat protection and enhancement; and maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements.

Cascade has provided or would provide the following mitigation measures:

- A Deferred development of Lake Tapps for municipal water supply to the extent that regional wholesale supplies are available to meet Cascade's demands.
- B Improve flow. Lake level and water quality gaging in the White River and Lake Tapps.
- C Reduce total White River diversions from the originally 2000 amount.
- D Institute seasonal diversion limits.
- E Augment lower Puyallup River spring flows.
- F Comply with ramping rates.
- G Maintain recreational Lake Levels.
- H Minimize Powerhouse Leakance.
- I Develop and implement, as necessary, Shortage Management.
- J Continue water conservation programs.
- K Donate a portion of the Puget Claim into the State Trust Water Rights Program.
- L Conduct a study of water quality in the tailrace canal.
- M Maintain settling basins.
- N Preserve 500 acres of riparian corridor along the White River for natural and/or conservation purposes.

- O Provide \$19.8 million to fund implementation of extensive fishery enhancement activities in the White River Basin.
- P Operate and maintain fish screens.
- Q Conduct a study to assess the potential of undesirable fish escaping from Lake Tapps Reservoir and gaining access to the White River.
- R Conduct a study of the tailrace canal to assess the occurrence of entry, delay, stranding, and/or delayed migration of salmonids.

Project Alternatives

In addition to the Proposed Action, the Draft EIS examines the following alternatives:

No Action Alternative

Under the No Action Alternative, the municipal water rights applications would not be acted upon and Cascade would not build or operate the Project. Because Cascade is a public water supply utility, it could face legal restrictions on owning a reservoir that it could not reasonably use for water supply purposes. Under those circumstances, Cascade would minimize expenditures associated with an operation not central to its core utilities' purposes and would attempt to sell the reservoir system.

Under the No Action Alternative, operation of the White River–Lake Tapps Reservoir system would most likely continue as it has since hydropower generation ceased in 2004.

1. Water would continue to be diverted from the White River at a rate that would maintain certain minimum flow rates in the White River. These minimum flow rates are referred to as the Interim Agency Flows (Interim Flows).² The Interim Flows in the White River would range from a high flow rate of 500 cfs from mid-summer into the fall to a low flow rate of 350 cfs through the winter and early spring.
2. Reservoir surface elevations would be maintained as they have been since 2004. Consistent with an agreement between Puget and the Lake Tapps Community, Normal Full Pool (i.e., a water surface elevation of 541.0 to 542.5 feet National Geodetic Vertical Datum [NGVD] 29) would be maintained from April 15 to October 31, allowing for operational variances required due to forecasts or available precipitation, conditions of water rights, any necessary aquatic plant control, or the terms and conditions of applicable law.

² Under the White River Management Agreement (WRMA), Cascade would be obligated to meet the Recommended Flow Regime described in the WRMA so long as Cascade diverted water from the White River. However, for the purposes of the analysis described in the Draft EIS and for Ecology's baseline analysis that will be described in the new Draft ROE, the Interim Agency Flows are used. The use of Interim Agency Flows allows for analysis of greater impacts than would occur under the Recommended Flow Regime.

3. No water would be withdrawn from Lake Tapps Reservoir for municipal supply.

On-Site Alternatives

Under the Washington State Environmental Policy Act (SEPA), reasonable alternatives are actions that could feasibly attain or approximate a proposal's objective, but at a lower environmental cost or decreased level of environmental degradation.

Under the Proposed Action, the Recommended Flows in the White River and recreational surface levels in Lake Tapps Reservoir would be fully provided prior to the diversion of or withdrawal of water for municipal use. Under the Proposed Action, Cascade has reduced the amount of water for diversion and withdrawals for municipal water supply (from the amounts requested in the Applications) to the maximum extent feasible while still providing for the current and projected demands of its Members and the region. Any on-site alternatives that propose further diminishment of diversion and withdrawals would not allow the management of the White River–Lake Tapps Reservoir system for municipal use while maintaining water quality, recreational reservoir levels, and stream flows for fish and wildlife; and thus, would not meet the Project objective and/or would do so at a higher overall environmental cost. Such alternatives would not be reasonable alternatives and were not carried forward for analysis.

Off-Site Alternatives

Under the Off-Site Alternatives, Cascade would develop an alternative source of supply in lieu of constructing the Project. Sources were evaluated via a multi-criteria analysis, including interim sources and permanent smaller and uncertain sources.

Cascade determined that Lake Tapps Reservoir is the only single source of supply that offers sufficient certainty for development to meet growth over a 50- to 100-year time frame. It is the only source that provides assurances needed to secure a significant increase in contracted supply from Seattle Public Utilities and/or Tacoma Public Utilities in the near-term. These assurances are important because the contracted supplies are designed to serve as a “bridge” supply pending Cascade’s development of a permanent, long-term supply in the future. The water suppliers providing the contracted supply need assurances that when the time comes to terminate the contract, the communities served by Cascade will not be dependent on the contracted water. The Lake Tapps Reservoir supply, regardless of when it is developed, has both the certainty and quantity needed to provide assurances to support further contracting. There is no other single potential supply that has both the quantity and certainty needed to provide these assurances.

Table FS-1. Water Rights Applications and Change of Use Application

Surface Water Application Number (Filing Date)	Type	Description Original Application Request	Description Current Proposal
S2-29920 ³ (June 20, 2000)	Permit for: Diversion from the White River	<p><u>Quantity:</u> Qa = Average Annual Flow Qa = 100 cfs (72,400 acre-feet/year)</p> <p>Qi = Maximum Instantaneous Flow Qi = 2,000 cfs</p> <p><u>Purpose:</u> Public water supply for consumptive municipal, industrial and commercial purposes.</p>	<p><u>Quantity:</u>⁴ Qa = 75 cfs (54,300 acre-feet/year)</p> <p>Qi = 1,000 cfs (from February 15 until the Spring Refill date or July 1, whichever is earlier) Qi = 400 cfs (from the Spring Refill date until September 15 or the date the Fall Drawdown commences, whichever is later) Qi = 150 cfs (from the the Fall Drawdown date to February 15)</p> <p><u>Purpose:</u> Unchanged from Original Application.</p>
R2-29935 (Sept. 15, 2000)	Permit for: Storage in Lake Tapps Reservoir	<p><u>Quantity:</u> Storage of up to 46,700 acre-feet of water in Lake Tapps Reservoir</p> <p><u>Purpose:</u> Public water supply for consumptive municipal, industrial and commercial purposes.</p>	<p><u>Quantity:</u> Unchanged from Original Application.</p> <p><u>Purpose:</u> Unchanged from Original Application.</p>
S2-29934 (Sept. 15, 2000)	Permit for: Withdrawal from Lake Tapps Reservoir	<p><u>Quantity:</u> Qa = 100 cfs (72,400 acre-feet/year) Qi = 150 cfs</p> <p><u>Purpose:</u> Public water supply for consumptive municipal, industrial and commercial purposes.</p>	<p><u>Quantity:</u> Qa = 75 cfs (54,300 acre-feet/year) Qi = 135 cfs</p> <p><u>Purpose:</u> Unchanged from Original Application</p>
CS2-160822CL (Nov. 22, 2005)	Change of: Puget Claim	<p><u>Quantity:</u> Qa = 2,000 cfs (1,440,000 acre-feet/year) 4. Qi = 2,000 cfs</p> <p><u>Purpose:</u> Hydropower and other beneficial uses including recreational reservoir levels; winter reservoir levels to maintain reservoir; protect and enhance fish and wildlife; maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements.</p>	<p><u>Quantity:</u>⁵ Qa = 1,284 cfs (929,654 acre-feet/year) (perfected) Qi = 2,000 cfs (perfected)</p> <p>Note: The Qi to be diverted from the White River under the changed Claim will be identical to the Qi described above for the application No. S2-29920 per the WRMA.</p> <p><u>Purpose:</u> Unchanged from Original Application</p>

³ Application S2-29920 is also referred to as S2-29921.

⁴ The total quantity requested in this application in the sum of the amount to be diverted by Cascade (i.e., 75 cfs average annual flow) and the Lake Tapps Regional Reserved Water (Qa(res) = 7 cfs and Qi(res) = 10 cfs). The Lake Tapps Regional Reserved Water will not be diverted from the White River, but rather will remain in the White River for the purpose of mitigation of impacts to the White River relating to future applications to be proposed by cities in the region.

⁵ An application for a temporary donation of a portion of CS2-160822CL into the State Trust Water Rights Program was accepted by Ecology on October 26, 2009.

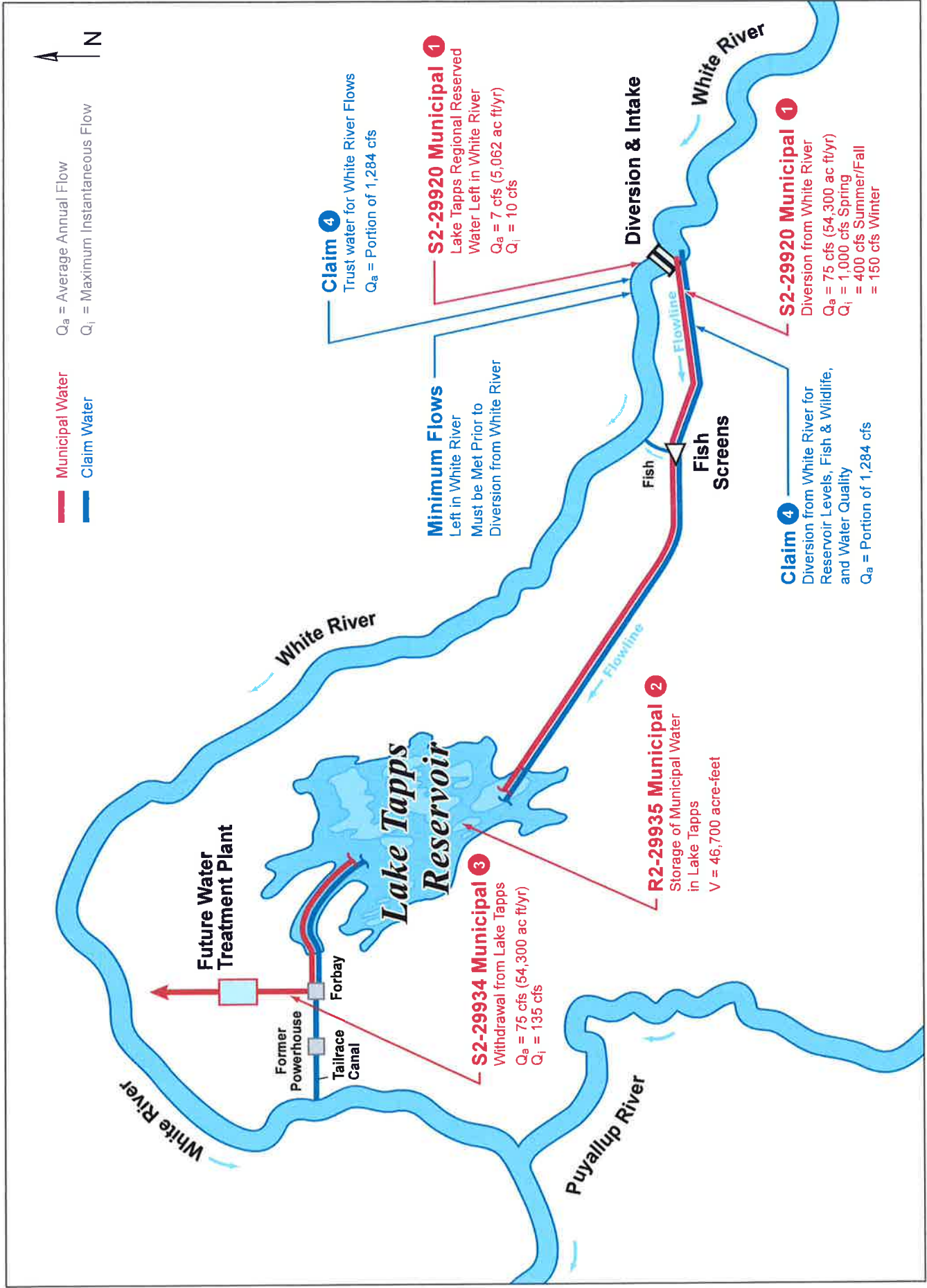


Figure FS-1. Schematic of the Water Right Applications and Change of Use Application
 Lake Tapps Water Rights and Supply Project