



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION
To Appropriate Public Waters of the State of Washington

APPLICATION DATE December 12, 2007	APPLICATION NO. S4-35138
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NAME Public Utility District No. 1 of Chelan County (Chelan PUD)		
ADDRESS/STREET PO Box 1231	CITY/STATE Wenatchee WA	ZIP CODE 98807

PUBLIC WATERS TO BE APPROPRIATED

SOURCE Columbia River (Lake Entiat)		
TRIBUTARY OF (IF SURFACE WATERS) Pacific Ocean		
MAXIMUM CUBIC FEET PER SECOND 24	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE-FEET PER YEAR 17,375

QUANTITY, TYPE OF USE, PERIOD OF USE
24 cubic feet per second and 17,375 acre-feet per year for fish propagation; year round non-consumptive use, as needed.

LOCATION OF DIVERSION

APPROXIMATE LOCATION OF DIVERSION
Approximately 2,100 feet north and 180 feet west of the southeast corner of Section 30.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) NE $\frac{1}{4}$ SE $\frac{1}{4}$	SECTION 30	TOWNSHIP 27 N.	RANGE 23 E.W.M.	WRIA 47	COUNTY Chelan
PARCEL NUMBER	LATITUDE	LONGITUDE	DATUM		

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

[Attachment 1 shows location of the authorized place of use and point(s) of diversion or withdrawal.]

A portion of the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 30, T. 27 N., R. 23 E.W.M. (located in the Lake Entiat Pool) lying north of the Chelan Falls Powerhouse Park parking lot, east of the Powerhouse Access Road, and west of the Lake Chelan Hydroelectric Powerhouse tailrace. Located in Parcel No. 272329320050.

DESCRIPTION OF PROPOSED WORKS

Surface water will be diverted from the Chelan Falls Powerhouse tailrace channel by two 50 horsepower (hp) vertical turbine pumps, conveyed through a 30-inch discharge pipe to one of the rearing facility's two ponds, then following treatment, discharged approximately 300 feet downstream of the original point of diversion.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE December 31, 2011.	COMPLETE PROJECT BY THIS DATE December 31, 2013	WATER PUT TO FULL USE BY THIS DATE December 31, 2022
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PROVISIONS

MEASUREMENTS, MONITORING, METERING AND REPORTING

1. Meter Installation

An approved measuring device shall be installed and maintained for each of the sources authorized by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173. <http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html>

2. Record Weekly, Report Annual Totals

Water use data shall be recorded weekly and maintained by the property owner. The maximum rate of diversion/withdrawal and the annual total volume shall be submitted to the Department of Ecology by January 31st of each calendar year.

3. Electronic Reporting

Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Central Region Office. If you do not have Internet access, you can still submit hard copies by contacting the Central Region Office for forms to submit your water use data.

4. Metering Rule Description And Petition Info

WAC 173-173 describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document titled "Water Measurement Device Installation and Operation Requirements". <http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html>

DEPARTMENT OF FISH AND WILDLIFE

5. Fish Screening Criteria

The intake(s) shall be screened in accordance with Department of Fish and Wildlife screening criteria (pursuant to RCW 77.57.010, RCW 77.57.070, and RCW 77.57.040). Contact the Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091. Attention: Habitat Program, Phone: (360) 902-2534 if you have questions about screening criteria.

6. Fish Rearing

A permit from the Department of Fish and Wildlife may be needed to raise fish in any state waters: <http://www.wdfw.wa.gov/reg/regions.htm>.

7. HPA

The applicant must obtain Hydraulic Project Approval from the Washington Department of Fish and Wildlife for all construction activities occurring within the high water mark of the Columbia River and its tributaries. Please contact the Department of Fish and Wildlife, 3860 Chelan Hwy N., Wenatchee, WA 98801-9625 or by telephoning Bob Steele at (509) 662-0503.

SCHEDULE AND INSPECTIONS

8. Authority To Access Project

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

9. Project Completion

The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the water right. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

FINDINGS OF FACT AND ORDER

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

Therefore, I ORDER the approval of Application No. S4-35138 subject to existing rights and the provisions specified above.

YOUR RIGHT TO APPEAL

You have a right to appeal this decision to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this decision. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this decision:

- File your appeal and a copy of this decision with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this decision on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

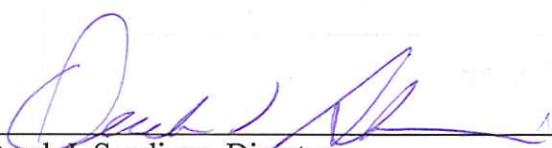
You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia WA 98504-7608
Pollution Control Hearings Board 4224 - 6 th Avenue SE Rowe Six Building 2 Lacey WA 98503	Pollution Control Hearings Board PO Box 40903 Olympia WA 98504-0903

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

Signed at Yakima, Washington, this 27th day of OCTOBER 2010.



 Derek I. Sandison, Director
 Office of Columbia River

BACKGROUND

Project Description

On February 14, 2007, the Public Utility District No. 1 of Chelan County (Chelan PUD) filed Application No. S4-35138 with the Washington State Department of Ecology (Ecology) to appropriate public surface water to supply the Chelan Falls Fish Rearing Facility. The applicant proposed to divert 24 cubic feet per second (cfs) and 12,345 acre-feet per year (ac-ft/yr) cumulative seasonal diversion volume (Qa). On December 12, 2007, Chelan PUD amended the application to request a year round diversion and an annual volume of 17,387 ac-ft/yr. Because the request represents an enlargement of the original application, the priority date was adjusted to December 12, 2007.

The rearing facility is situated on the west bank of the Chelan Falls Powerhouse tailrace, just north of the Chelan Falls Park, on the Chelan River. The rearing facility is one component of the Chelan PUD's overall goal to convert their current sub-yearling program to a yearling program, per recommendations of the Habitat Conservation Plan Hatchery Committee. This conversion would improve the survival of fish released into the Columbia River system. The rearing facility will be used for final acclimation of approximately 600,000 summer Chinook, which will help increase harvest opportunities. The project is within the state's Water Resource Inventory Area (WRIA) 47.

Table 1
Summary of Application No. S4-35138

<i>Attributes</i>	<i>Proposed</i>
Applicant	Public Utility District No. 1 of Chelan County
Priority Date	December 12, 2007
Instantaneous Quantity	24 cfs
Annual Quantity	17,375 ac-ft/yr
Source	Lake Entiat (Columbia River)
Point of Diversion	NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 30, T. 27 N., R. 23 E.W.M.
Purpose of Use	Fish Rearing
Period of Use	Year-round
Place of Use	Chelan River Rearing Facility

Legal Requirements for Application Processing

The following requirements must be met prior to processing a water right application:

- **Public Notice**
Notice of the proposed appropriation was published in the *Wenatchee World* of Wenatchee, Washington, on January 16 and 23, 2009. No protests were received by Ecology.
- **State Environmental Policy Act (SEPA)**
A SEPA review of the proposed diversion was completed by Chelan PUD and concluded with a Determination of Nonsignificance issued on February 13, 2007. No comments were received.
- **Water Resources Statutes and Case Law**
Chapters 90.03 and 90.44 RCW authorize the appropriation of public water for beneficial use and describe the process for obtaining water right. Laws governing the water right permitting process are contained in RCW 90.03.250 through 90.03.340. Based on the provisions of RCW 43.21A.690 and RCW 90.03.265, this application has been processed by Aspect Consulting, LLC (Aspect Consulting) under Ecology Cost-Reimbursement Agreement No. ASP11 (master contract No. C0500006).

INVESTIGATION

In consideration of this application, Aspect Consulting reviewed available documents pertaining to the application's site conditions, projected water usage and demand, and the potential effect on existing water right holders. This included the information submitted by the applicant and pertinent Ecology records. Most notably, it included review of the Chelan PUD's Habitat Conservation Plans (HCP) and recommendations of the HCP Hatchery Committee (HC) to convert the Chelan PUD's sub-yearling program to a yearling program. In concert, to improve final acclimation, a salmon rearing facility was proposed to be located at Chelan Falls. The Chelan PUD filed Application No. S4-35138 to support this facility.

A site visit was performed on April 22, 2008. Tyson Carlson of Aspect Consulting met with Waikele Hampton, Staff Environmental Specialist for the Chelan PUD. The site visit included inspection of the proposed point of diversion and place of use, and an interview with the applicant.

Using this information, Aspect Consulting evaluated water availability and potential effects of the proposed appropriation on existing groundwater and surface water rights. Each of the four requirements specified in RCW 90.03.290 were individually examined and are presented below.

Project Description

The Turtle Rock Island hatchery program was originally designed to mitigate for lost spawning areas (due to damming at Rocky Reach) in the mainstem Columbia River and to provide harvest opportunities for summer and fall Chinook salmon. The Chelan PUD's original license stated:

"The Licensee shall construct, operate and maintain or shall arrange for the construction, operation and maintenance of such ladders, traps, hatcheries, dikes, fences, islands, and marsh areas or other facilities or protective devices for the purpose of conserving fish and wildlife resources, and comply with such reasonable modifications in project structures and operations in the interest of conserving fish and wildlife resource..."

To fulfill these obligations, Chelan PUD signed an agreement with the Washington State Department of Game (precursor to the Department of Fish and Wildlife) in 1963 to construct a spawning channel on Turtle Rock Island to mitigate for lost spawning areas in the mainstem Columbia River. The spawning channel was built to accommodate 300 Chinook pairs (600 fish total), but success was limited due to high pre-spawning mortality. In the early 1970's, Turtle Rock Island was converted into a conventional fish production facility. The Turtle Rock Island hatchery program remains the same today and obligates the Chelan PUD to provide funding to raise 1.6 million sub-yearlings and 200,000 yearlings.

In 1993, the prospect of ESA listings for salmon and steelhead prompted the Chelan PUD to develop two HCPs for anadromous fish in cooperation with federal and state regulatory agencies and Tribes. The plans commit Chelan PUD to a 50 year program to ensure their hydro projects have "no-net-impact" on mid-Columbia salmon and steelhead runs. This level of protection will be accomplished through a combination of increased survival, off-site hatchery programs and evaluations, and habitat restoration work conducted in mid-Columbia tributary streams (Hampton 2007).

Since adoption of the HCP, the HC has recommended that the Chelan PUD's sub-yearling program be converted to a yearling program. In addition, to improve final acclimation, a salmon Rearing Facility is proposed to be located at Chelan Falls.

Site Description

The proposed point of diversion is located on the west side of the Lake Chelan Hydroelectric Project tailrace channel, a small embayment located on the western bank of Lake Entiat, created by the impoundment of the Columbia River behind the Rocky Reach Dam. The proposed point of diversion is located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 30, T. 27 N., R. 23 E.W.M.

Surface water will be diverted from a pump station containing two tee screen intakes and two 50 horsepower (hp) vertical turbine pumps. The two 33-inch tee screens will be mounted on a sheet pile wall projecting into the tailrace. The pump cans, motors, and control building will be located at the top of the tailrace bank. The pumps will discharge to a 30-inch diameter discharge line with two 24-inch diameter lines supplying each of the rearing ponds. The two parallel rearing ponds will be approximately 250 feet long, 30 feet wide, and 8 feet deep.

Following passage through the rearing ponds, water will be treated, and discharged approximately 300 feet downstream of the original point of diversion. Treatment will be accomplished via the use of a settling pond. A vacuum-type cleaning system will be used to maintain the ponds. Two 4-inch diameter discharge lines would then convey the waste to a 20 foot by 45 foot cleaning waste basin located adjacent to the ponds, where quiescent settling of the waste will occur. The system is designed such that incoming cleaning waste will push out the settled water. This “decanted” water will drain from the basin via an 18-inch pipe and tie into the outfall pipe where it will then be carried to the tailrace.

In total, the rearing facility will hold a total of approximately 711,000 gallons (~ 2.2 acre-feet) of water.

The fish will be brought on site around September of each year and will be released around April of the following year. However, to allow flexibility in the timing of the fish rearing period and/or a change of species, the applicant has requested a year round water authorization (and the corresponding Qa) for the development period of the permit.

Instream Flow Requirements

To provide for preservation of wildlife, fish, aesthetic, and other environmental values, and navigational uses, Chapter 173-563 Washington Administrative Code (WAC) defines minimum instantaneous and minimum weekly average flows throughout the year at seven main stem Columbia River locations. However, Chapter 173-563 WAC instream flow rules do not apply to applications for new Columbia River water rights for which Ecology makes a decision on or after July 27, 1997. WAC 173-563-020(4) states:

“Any water right application considered for approval or denial after July 27, 1997 will be evaluated for possible impacts on fish and existing water rights. The department will consult with appropriate local, state, and federal agencies and Indian tribes in making this evaluation. Any permit which is then approved for the use of such waters will be, if deemed necessary, subjected to instream flow protection or mitigation conditions determined on a case-by-case basis through the evaluation conducted with the agencies and tribes.”

Consultation

During the early stages of the application process, Ecology conducted agency consultations regarding the pending water right application, as required by Chapter 173-563 WAC. Consultation was sought from National Marine Fisheries Service (NMFS), Washington Department of Fish and Wildlife (WDFW), the United States Fish and Wildlife Service, and local Native American tribes, including the Colville Confederated Tribes and the Confederated Tribes and Bands of the Yakama Nation. Letters of support were received from all parties.

Ecology has also sought consultation with the U.S. Bureau of Reclamation (Reclamation) who controls all unappropriated waters of the Columbia River above Priest Rapids Dam – including all tributaries and groundwater that are in continuity. Reclamation subsequently granted a release of water for the subject application in a letter received July 26, 2007, and, based on the request for a year round diversion, later reaffirmed their opinion in an email dated May 26, 2009.

Columbia River Consultation was also conducted according to WAC 173-563-020(4). Ecology sent a letter describing Application No.'s S4-35138 and S4-35153 on June 11, 2010 to all appropriate local, state, and federal agencies and Indian Tribes. Only comments of support were received.

Water Quality

Discharge of effluent from the rearing facility will be governed by an Upland Fin-Fish Hatching and Rearing General NPDES Permit issued by Ecology's Water Quality Program. The purpose of the permit is to control the discharge of potential pollutants into waters of the state by specifying best management practices, effluent limitations, and monitoring requirements.

In addition, the EPA is currently working on a TMDL for temperature for the mainstem Columbia River, which is known to exceed the preference zone for migrating salmon and steelhead from July to September. The overall goal of the Columbia River TMDL would be to lower the temperatures by reducing thermal loading to the river. Lake Entiat also currently has three parameters on Ecology's 303(d) list, including 4,4'-DDE, 4,4'-DDD, and PCB in fish tissue.

APPLICATION EVALUATION

Priority Processing

The Chelan PUD requested that Application No. S4-35138 be processed under WAC 173-152-050(2)(b), commonly known as the Hillis Rule. This rule allows Ecology to prioritize the processing of new water right applications that are nonconsumptive, and include qualifying measures that substantially enhance or protect environmental quality in a watershed.

Guidance regarding classification of water uses as nonconsumptive for surface water is given by Ecology's Water Resources Program, Policy POL 1020 (Ecology 1991). The policy defines water use as nonconsumptive when "...there is no diversion from the water source or diminishment of the source". Furthermore, an exception is allowed for projects (such as fish hatcheries) when the "...water is returned to the same pool from which it is diverted and the pool's water elevation is not changed..." POL 1020 also specifies that water use to initially fill or charge the system is allowed, subject to instream flows and existing rights.

Ecology recognizes that certain projects may have a small component of water consumption – such as, through an increase in bank storage or evaporation rate. However, as a matter of policy, Ecology classifies these types of projects as nonconsumptive (Ecology 1991).

The second criterion for priority processing is that the new use will provide for significant environmental benefit. Chelan PUD has committed to a 50-year program to ensure their hydroelectric projects have "no-net-impact" on mid-Columbia salmon and steelhead runs. Application No. S4-35138 is intended to support mitigation for the Rocky Reach Dam and recommendations of the HCP HC. Based on this information, Ecology has concluded that the subject applications also meet the environmental enhancement/protection criterion for priority processing under WAC 173-152-050(2)(b).

Ecology has determined that Application No. S4-35138 is nonconsumptive and provides for environmental enhancement; therefore, the water right application is being processed on a priority basis as allowed for under WAC 173-152-050(2)(b).

Four Statutory Tests

This Report of Examination (ROE) evaluates the application based on the information presented above and in referenced FERC relicensing documents. To approve the application, Ecology must issue written findings of fact and determine that each of the following four requirements of RCW 90.03.290 has been satisfied:

1. The proposed appropriation would be put to a beneficial use;
2. Water is available for appropriation;
3. The proposed appropriation would not impair existing water rights; and
4. The proposed appropriation would not be detrimental to the public welfare.

Beneficial Use

In accordance with RCW 90.54.020(1), the proposed appropriation for fish and wildlife maintenance and enhancement represent a beneficial use of water. The proposed appropriation will be the only source of water for the Chelan Falls Rearing Facility. As detailed on the application for Permit, the point of diversion will be supported by the necessary infrastructure to deliver the full appropriation of water to the facility. The rate at which the water will be diverted is required for successful operation of the fish rearing facility.

Availability

Based on the collective information summarized above, we conclude that the quantity of water requested for use in this application is available for appropriation. The point of diversion is located in the powerhouse tailrace – a small embayment of Lake Entiat on the Columbia River. The requested diversion rate is a relative small percentage of the total discharge of the Columbia River and the storage capacity of Lake Entiat. In addition the diversion rate is offset with return flow from the rearing facility (following the initial filling of the facility). Therefore, we conclude that the stage of Lake Entiat will not be affected by the proposed diversion.

In addition, no administrative or regulatory closures are identified that affect the availability of water requested under this application.

Potential for Impairment

RCW 90.03.290 and RCW 90.44.060 require a determination that a new appropriation will not impair existing rights. Numerous water right certificates, permits, and claims are present on Lake Entiat or downstream on the mainstem of the Columbia River, in addition to the numerous permitted points of withdrawal utilizing aquifers in continuity with the Lake Entiat. However, because the proposed appropriation is nonconsumptive, the flows returns to the same pool as which it was diverted, and the stage of Lake Entiat will not be affected, no impairment of surface water or groundwater rights is expected to occur. This includes the initial ~2.2 acre-feet of water required to charge the facility up to once a year.

The point of diversion is located approximately 300 feet upstream of the rearing facility's discharge structure. Because the point of diversion and point of return flow is in the same pool, and the stage will not be affected by the proposed appropriation, no reach of the Columbia River will be impaired.

Public Welfare

No protests to the application were received. The proposed appropriation will support the recommendations made by the HCP HC in fulfilling the Chelan PUD commitment for "no-net-impact" on mid-Columbia salmon and steelhead runs by their hydroelectric projects. During the consultation process, letters of support were received from NMFS, WDFW, the United States Fish and Wildlife Service, and local Native American tribes.

CONCLUSIONS

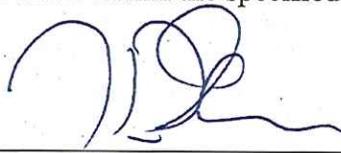
The conclusions based on the above investigation are as follow:

1. The proposed appropriation for fish propagation in the proposed Chelan Falls Rearing Facility is a beneficial use of water.
2. The quantity of water requested for non-consumptive use in this application is available for appropriation from Lake Entiat, Columbia River.
3. The proposed non-consumptive appropriation will not impair existing water rights.
4. The proposed appropriation will not be detrimental to the public interest.
5. Following consultation, Ecology has determined no instream flow protection or mitigation conditions are deemed necessary.

RECOMMENDATION

I recommend approval of Application for Water Right No.S4-35138, and issuance of a permit to allow a non-consumptive appropriation of surface water from the tailrace channel located on Lake Entiat (Columbia River) for fish propagation at a maximum instantaneous withdrawal rate (Qi) of 24 cfs and a cumulative annual volume of 17,375 ac-ft/yr. The period of use will be year round, as needed.

The amount of water granted is a maximum limit that shall not be exceeded, and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required.

Report by: 
 Tyson D. Carlson, LHG, Aspect Consulting, LLC

October 26, 2010
 Date

REVIEWED BY: 
 Kelsey Collins, Water Resources Program

10/26/10
 Date

If you need this publication in an alternate format, please call Water Resources Program at 360 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

CITATIONS

Ecology 1991. Water Resources Program Policy POL 1020; Consumptive and Nonconsumptive Water Use. October 31, 1991.

Ecology 2004a. Lake Chelan Hydroelectric Project (FERC No. 637); 401 Certification – Order No. 1233. June 1, 2004.

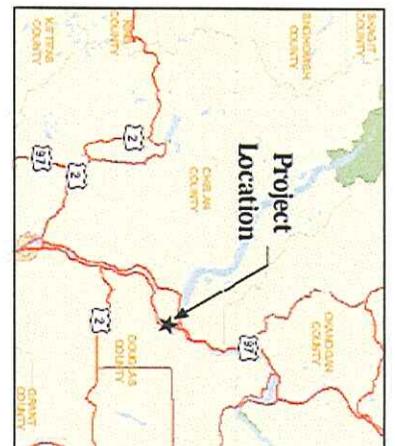
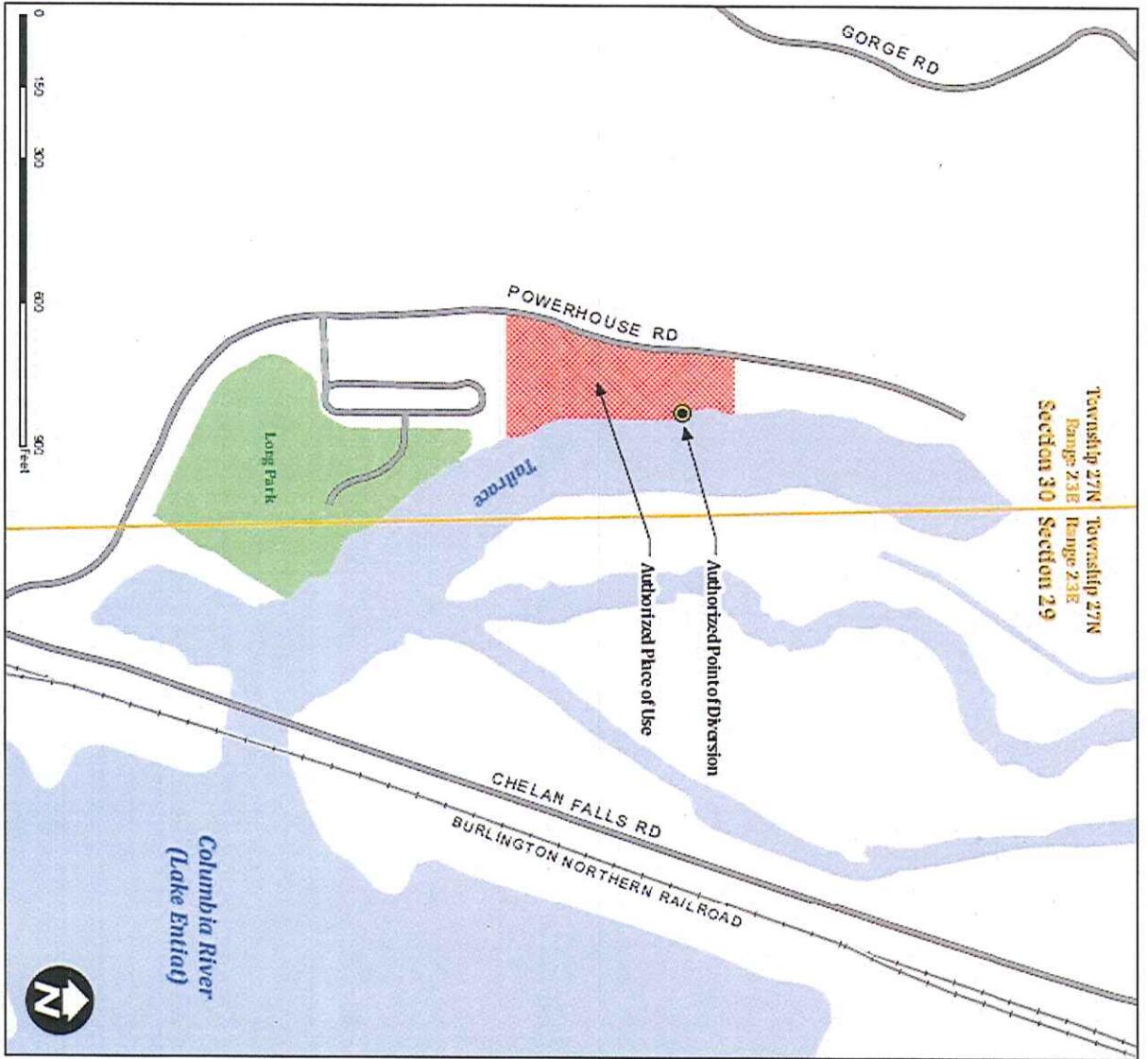
Ecology 2004b. Water Resources Program Policy POL 1021; Priority Processing – Water Budget Neutral Projects. January 21, 2004.

HCP HC 2006. Statement of Agreement on Production levels for Chelan County PUD's Turtle Rock Summer Chinook Hatchery Program. October 18, 2006.

Hampton, Waikele 2007. Email communication providing background on Turtle Rock Island Program. May 22, 2007.

Washington Administrative Code (WAC) Chapter 170-563 1998. Instream Resources Protection Program for the Main Stem Columbia River in Washington State. March 30, 1998.

Attachment 1



Comments: Place of use and point of diversion are defined on the cover sheet under the heading "LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED."

Legend

- Authorized Point of Diversion
- Authorized Place of Use
- Water Body or Watercourse
- Roads
- Railroads
- Section Lines
- Park

		Chelan PUD No. S4-35138 T27N R23E, Sec 30 WRIA 47, Chelan County, Washington	
PROJECT NO. 090180	DATE MAR 2010	DRAWN BY JHW	CHECKED BY TDC
ATTACHMENT NO. 1	PROJECT NO. 090180	DATE MAR 2010	DRAWN BY JHW

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