

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

PRIORITY DATE
11/26/2012

WATER RIGHT NUMBER
G1-28744

MAILING ADDRESS
PUGET SOUND ENERGY (PSE)
10885 NE 4TH STREET
BELLEVUE WA 98004

SITE ADDRESS (IF DIFFERENT)
UPPER BAKER WATER SYSTEM (UBWS)
46110 EAST MAIN STREET
CONCRETE WA 98237

Quantities Authorized for Withdrawal

WITHDRAWAL RATE IN GALLONS PER MINUTE (gpm)	ANNUAL QUANTITY IN ACRE-FEET PER YEAR (Ac-ft/yr)
150	33

Purpose of Use

PURPOSE	WITHDRAWAL RATE			ANNUAL QUANTITY (Ac-ft/yr)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Multiple domestic	150		gpm	33		01/01 - 12/31

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION	
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID	CONNECTIONS
0	0	05754	123 (calculated)

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Whatcom	Groundwater	Sulphur Creek	4-Upper Skagit

SOURCE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Underground drainage tunnel (aka domestic tunnel)	Not specified	NA	37N	8E	36	SE NE	48.65315	-121.69819
								Datum: NAD83/WGS84

Place of Use (see Attachment 1)

LEGAL DESCRIPTION OF THE AUTHORIZED PLACE OF USE

The W $\frac{1}{2}$ NW $\frac{1}{4}$ and the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 31, Township 37 North, Range 9 East, and the SE $\frac{1}{4}$ NE $\frac{1}{4}$ and the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, Township 37 North, Range 8 East, W.M.

Proposed Works

Groundwater is collected from an underground drainage tunnel. A metal weir, located inside the tunnel, diverts water into a 4-inch diameter iron pipe that leads to a pumphouse where the water is chlorinated and pumped to a 44,000 gallon concrete storage tank. The stored water is used by the Upper Baker Water System for multiple domestic supply at the Baker River Fish hatchery, a campground, a lodge, a residential duplex, and various PSE Upper Baker operations buildings.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Begun	Complete	July 1, 2018

Measurement of Water Use

How often must water use be measured?	Weekly
How often must water use data be reported to Ecology?	By January 31 of the following calendar year
What volume should be reported?	Total Annual Volume (in ac-ft/yr)
What rate should be reported?	Annual Peak Rate of Withdrawal (in gpm)

Provisions

Measurements, Monitoring, Metering, and Reporting

An approved measuring device shall be installed and maintained on the source identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173.

Department of Health Requirements

Prior to any new construction or alterations of a public water supply system, the State Board of Health rules require public water supply owners to obtain written approval from the Office of Drinking Water of the Washington State Department of Health. Please contact the Office of Drinking Water at Northwest Drinking Water Operations, 20435 72nd Avenue S, Suite 200, K17-12, Kent, WA 98032-2358, (253) 396-6750.

Easement and Right-of-Way

The water source and water transmission facilities are not located upon land owned by the applicant. Issuance of a water right authorization by this department does not convey a right of access to, or other right to use, land which the applicant does not legally possess. Obtaining such a right is a private matter between the applicant and owner of that land.

Water Use Efficiency

The water right holder is required to maintain efficient water delivery systems and use of up-to-date water conservation practices consistent with RCW 90.03.005.

Proof of Appropriation

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 permit. Elements of a proof inspection may include, as appropriate, the source, system instantaneous capacity, beneficial use, annual quantity, place of use, and satisfaction of provisions.

Schedule and Inspections

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, measuring devices, and associated distribution systems for compliance with state water law.

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question, there will be no impairment of existing rights, the purpose of use is beneficial, and there will be no detriment to the public interest.

Therefore, I ORDER approval of Application G1-28744, subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. 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).

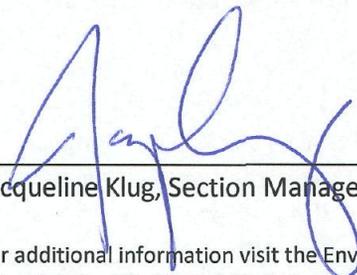
To appeal you must do the following within 30 days of the date of receipt of the Order.

File your appeal and a copy of this Order 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 Order 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.

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 1111 Israel RD SW Ste 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

Signed at Bellevue, Washington, this 10 day of June, 2013.



Jacqueline Klug, Section Manager

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

INVESTIGATOR'S REPORT

Application for Water Right -- Puget Sound Energy
Water Right Control Number G1-28744
Buck Smith, LG, LHG

BACKGROUND

This report serves as the written findings of fact regarding Water Right Application G1-28744. The applicant, Puget Sound Energy (PSE), is seeking legal authorization for the Upper Baker Water System (UBWS) to use up to 150 gallons per minute (gpm) of groundwater, from an underground drainage tunnel, for multiple domestic supply purposes to serve facilities located near the Baker River Hydroelectric Project Upper Baker Dam. PSE does not own the property containing the place of use or the requested point of withdrawal. The property owner is the USDA Forest Service. Jennifer Eberlien, Forest Supervisor, Mount Baker – Snoqualmie National Forest signed the subject application, along with Jory Oppenheimer, PSE Water Resources – Licensing section.

Priority Processing

This application is being priority processed because it qualified under the criteria outlined in WAC 173-152(2)(g) which allows an application to receive priority processing if the proposed project will be water budget neutral. In this case, the subject application is being priority processed because PSE has agreed to have their existing permit (G1-27798) for the subject purpose of use be canceled. Permit G1-27798 currently allows for the withdrawal of up to 40 acre-feet per year (the subject request is for 33 acre-feet per year) from a nearby well. Due to unacceptable water quality problems PSE has decided to stop using water from the well and instead supply their facilities from the subject drainage tunnel. Because PSE's permit to be canceled is for a greater volume than the subject request, the subject request is in fact water budget neutral (or possibly positive). In addition, PSE has agreed to voluntarily relinquish Water Right Claim 160818, also for the requested purpose of use. (The permit cancellation and claim relinquishment are discussed further in the Investigation section of this report).

Table 1: Summary of the Requested Water Right

Applicant Name	Puget Sound Energy
Date of Application	11/26/2012
Place of Use	The SW¼ NW¼ of Section 31, Township 37 North, Range 9 East, and the SE¼ NE¼ of Section 36, Township 37 North, Range 8 East, W.M. (not a complete description)

County	Waterbody	Tributary To	WRIA
Whatcom	Groundwater	Sulphur Creek	4-Upper Skagit

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Multiple domestic	150	gpm	33	01/01	12/31

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Underground Drainage Tunnel	Not platted	Not Applicable	37N	8E	36	SE NE	48.65315	-121.69819

gpm = gallons per minute; Ac-ft/yr = acre-feet per year; Twp = Township; Rng = Range; Sec = Section; QQ Q = quarter-quarter of a section; WRIA = Water Resource Inventory Area; W.M. = Willamette Meridian; Datum: NAD83/WGS84.

Legal Requirements for Approval of Appropriation of Water

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, withdrawn, and used. Notice of the subject application was published in the *Skagit Valley Herald* on January 22 & 29, 2013.

Consultation with the Department of Fish and Wildlife

The Department of Ecology (Ecology) must give notice to the Washington Department of Fish and Wildlife (WDFW) of applications to divert, withdraw, or store water. WDFW is a co-manager of some of the subject facilities and therefore has no objections to the issuance of the requested water right.

State Environmental Policy Act (SEPA)

A groundwater application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if it is for more than 2,250 gpm. Because this application does not exceed 2,250 gpm it is categorically exempt from SEPA.

INVESTIGATION

The Upper Baker Water System (UBWS) is owned by PSE. It is a Washington State Department of Health (DOH) approved private transient non-community system (ID# 05754). DOH has currently approved

UBWS to serve a residential population of 7 and a non-residential population of 178 from a total calculated connections limit of 123.

Proposed Use

The UBWS provides water for domestic supply purposes at the Baker River Fish Hatchery (co-managed by WDFW, the Sauk-Suiattle Indian Tribe, the Swinomish Indian Tribal Community, and the Upper Skagit Indian Tribe). It also supplies domestic water to the 108 campsites and restrooms at the Kulshan Campground and other related PSE facilities in the area (a lodge, a permanent residential duplex, and various Upper Baker Dam operations buildings).

Site Visit

On March 21, 2013, I met with PSE employees Jory Oppenheimer and Douglas Bruland (Fisheries Supervisor) at the PSE Baker River Office in Concrete, WA. We traveled to the place of use which is located approximately 10 miles north of the town of Concrete. We visited the underground drainage tunnel (known as the “domestic” tunnel) and accompanying pumphouse (see photo 1).



Photo 1: The pumphouse on the left and the “domestic” tunnel on the far right.

The domestic tunnel is secured by a locked door. Mr. Bruland unlocked the door so I could observe the weir and diversion works within the tunnel. The tunnel is sloped (less than 5%) towards the entrance, is approximately 6 feet in diameter, and 500 feet long. It was blasted through bedrock during construction of the Upper Baker Dam in 1958. It is located on the north side of the Sulphur Creek valley. A steady supply of more than 2000 gpm flows through the tunnel year-round. A metal weir, located inside the tunnel (see photo 2), diverts water into a 4-inch diameter pipe that leads into the pumphouse where the water is chlorinated and pumped to a 44,000 gallon storage tank for distribution throughout the system.



Photo 2: Inside the “domestic” tunnel. The weir and potable water supply pipeline are visible.

Most of the water in the domestic tunnel bypasses the weir and flows through a pipe to the “overflow structure” (see photo 3). From there an 8-inch diameter pipe gravity feeds non-potable water to the incubation building at the nearby Baker River Fish Hatchery. The pipe capacity is 1150 gpm. This non-potable water is the subject of application G1-28743. This application was submitted at the same time as the subject application and is being processed concurrently. Water not piped to the incubation building is excess water that leaves the overflow structure through twin 15-inch diameter pipes, where it then cascades to Sulphur Creek.

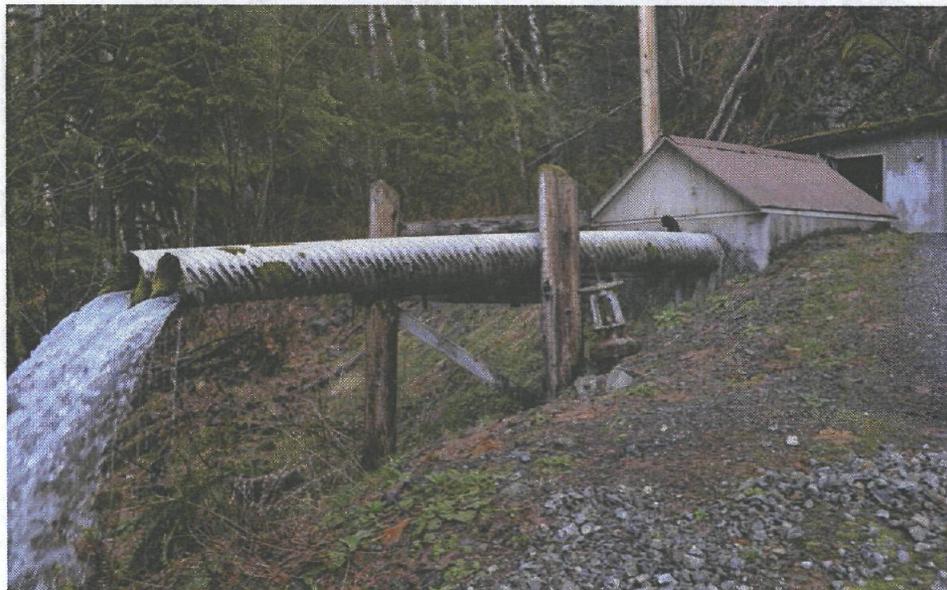


Photo 3: The overflow structure and pumphouse (top right). Excess water cascades to Sulphur Creek.

Other Rights Appurtenant to the Place of Use

As mentioned previously, PSE currently holds water right permit G1-27798. This permit has a priority date of March 19, 1997. It authorizes PSE to withdraw up to 75 gallons per minute and 40 acre-feet per year, for multiple domestic supply, from a well located in the SW¼ NW¼ of Section 31, Township 37 North, Range 9 East (approximately 900 feet southeast of the domestic tunnel). PSE had been using this well to serve the facilities covered by the subject application. However, due to excessive H₂S in the water PSE has discontinued using the well and has now switched over to using water from the domestic tunnel. Permit G1-27798 is still in good standing. However, upon approval of the subject application (if approved) the permit will no longer be needed and will be canceled. The permitted well and the domestic tunnel are in close proximity to each other and are both hydraulically connected to the Baker River Watershed.

PSE also holds water right claim 160818. Ecology received this claim from PSE (then known as Puget Sound Power & Light Company) on June 27, 1974. PSE claimed 4.5 cubic feet per second and 3,258 acre-feet per year from the subject (domestic) drainage tunnel. The claimed date of first use is 1958. The claimed purposes of use are domestic, air condenser cooling, trailer park, and irrigation. The place of use is within the place of use of the subject application. Whether or not this claim represents a vested (pre-1917) right has not been determined by a superior court action nor has Ecology made a tentative determination of its validity. Due to the claim's questionable validity as a vested right (the date of first use is post-1917), PSE (through Mr. Oppenheimer) made a decision to not attempt to exercise it and instead has submitted a signed and notarized "Voluntary Relinquishment of Water Right" form to Ecology. This form was received by Ecology on April 12, 2013. PSE has requested a full voluntary relinquishment of the claim. This form will be processed upon approval of the subject application (if approved).

In addition, PSE holds water right certificate S1-25440C. This certificate has a priority date of May 10, 1989. It authorizes PSE to divert up to 40 cubic feet per second (no annual volume was specified) from Big Springs (located approximately 750 feet northwest of the domestic tunnel), for fish propagation purposes at the Big Springs/Sulphur Creek spawning beach facility. This facility was the predecessor project to the current (new) Baker River Fish Hatchery. The diversion works now supplies the new hatchery with non-potable water. This diversion has been in use each year since at least 1990. Therefore, this certificate appears to be in good standing.

Impairment Considerations

Impairment is an adverse impact on the physical availability of water for a beneficial use that is entitled to protection. Impairment can also be the degradation of water quality to the point that the water is unsuitable for beneficial use by existing users.

In the case of the subject request, no impairment is anticipated for the following reasons:

1. PSE is the only user of the domestic tunnel.
2. There are no surface water users of Sulphur Creek between the domestic tunnel overflow and the point where Sulphur Creek enters into the Baker River above Lake Shannon.

3. The subject request will be water budget neutral to the overall Baker/Skagit River Watershed due to the pending cancellation of permit G1-27798. This permit was issued prior to the adoption of WAC 173-503 (Instream Resources Protection Program — Lower and Upper Skagit Water Resources Inventory Area — WRIA 3 and 4).
4. The quantity and quality of return flows from the subject facilities septic systems will not change.

Water Availability

For water to be available for appropriation, it must be both physically and legally available.

Physical availability

For water to be physically available for appropriation there must be water present in quantity and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use.

According to Doug Bruland, the domestic tunnel has a constant year-round flow of high quality water. Physical availability should not be an issue.

Legal availability

In order to approve an application for new water rights, water must be legally available for the requested purpose of use. In this case, Sulphur Creek and all downstream tributary waters (Baker River and Skagit River) are not closed to new appropriations. The Skagit River is currently subject to minimum instream flow levels per WAC 173-503, but it is not legally closed (at this time) to new appropriations. Therefore, water is legally available. In addition, the subject request will be water budget neutral and therefore will have no effect on instream flow levels in the Skagit River.

Beneficial Use

The proposed use of water is defined in statute as a beneficial use (RCW 90.54.020(1)).

PSE is requesting 150 gpm which is the instantaneous capacity of the pump system. Based on projected demand, PSE is requesting 33 acre-feet per year. The previously issued permit (G1-27798) allocated 40 acre-feet per year for the identical beneficial use (other than the potable water use that will occur at the new hatchery). The annual volume approved for G1-27798 was based on the following calculations:

Recreational vehicle park (Kulshan Campground) for 160 hookups at 70% usage	13.0 ac-ft/yr
Lodge with a maximum of 100 guests at 70% usage	4.2 ac-ft/yr
Generator plant with kitchen and restroom facilities	0.5 ac-ft/yr
Four seasonal use trailers	2.0 ac-ft/yr
Two mechanics shops with kitchen and restroom facilities	1.0 ac-ft/yr
Four stand-alone restrooms with showers	13.5 ac-ft/yr
Fire flow	<u>5.8 ac-ft/yr</u>
TOTAL	40.0 ac-ft/yr

PSE has reduced the annual volume requested (under the subject application) to 33 acre-feet per year because the Kulshan Campground has 108 hookups (not 160) and because visitation at the lodge has been greatly diminished in recent years. However, some of this reduction will be offset by potable use at the new Baker River Fish Hatchery. Overall, I find the request for 33 acre-feet per year to be reasonable for the proposed multiple domestic beneficial use.

Public Interest Considerations

In accordance with WAC 173-505-061, Ecology acknowledges that the project releases submitted to the Federal Energy Regulatory Commission for relicensing of Puget Sound Energy's Baker River project are a necessary component to adequately mitigate for the ongoing impacts of Baker River project operations. Therefore, in order to prevent detriment to the public interest, new permits for withdrawals or diversions that would impact the portion of the Skagit River basin between Sedro Woolley up to and including the Baker River, will only be issued if the applicant can demonstrate that there will be no measurable reduction in the mitigation benefits associated with the flow release provisions associated with the Baker River relicensing. In this case, the water use will be water budget neutral and will not affect the Skagit River.

No other potential for detriment to the public interest could be identified during the processing of the subject application.

Consideration of Protests and Comments

No protests or comments were filed against this application.

Conclusions

I conclude from my investigation that water is available from the requested source, there will be no impairment of existing rights, the purpose of use is beneficial, and there will be no detriment to the public interest.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend the subject request for a water right be approved in the amounts and within the limitations listed below and subject to the provisions listed on pages 2 and 3.

Water Right Attributes

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial.

150 gallons per minute, 33 acre-feet per year, for multiple domestic supply

Point of Withdrawal

SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 36, Township 37 North, Range 8 East, W.M.

Place of Use

The W $\frac{1}{2}$ NW $\frac{1}{4}$ and the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 31, Township 37 North, Range 9 East, and the SE $\frac{1}{4}$ NE $\frac{1}{4}$ and the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, Township 37 North, Range 8 East, W.M.



Buck Smith

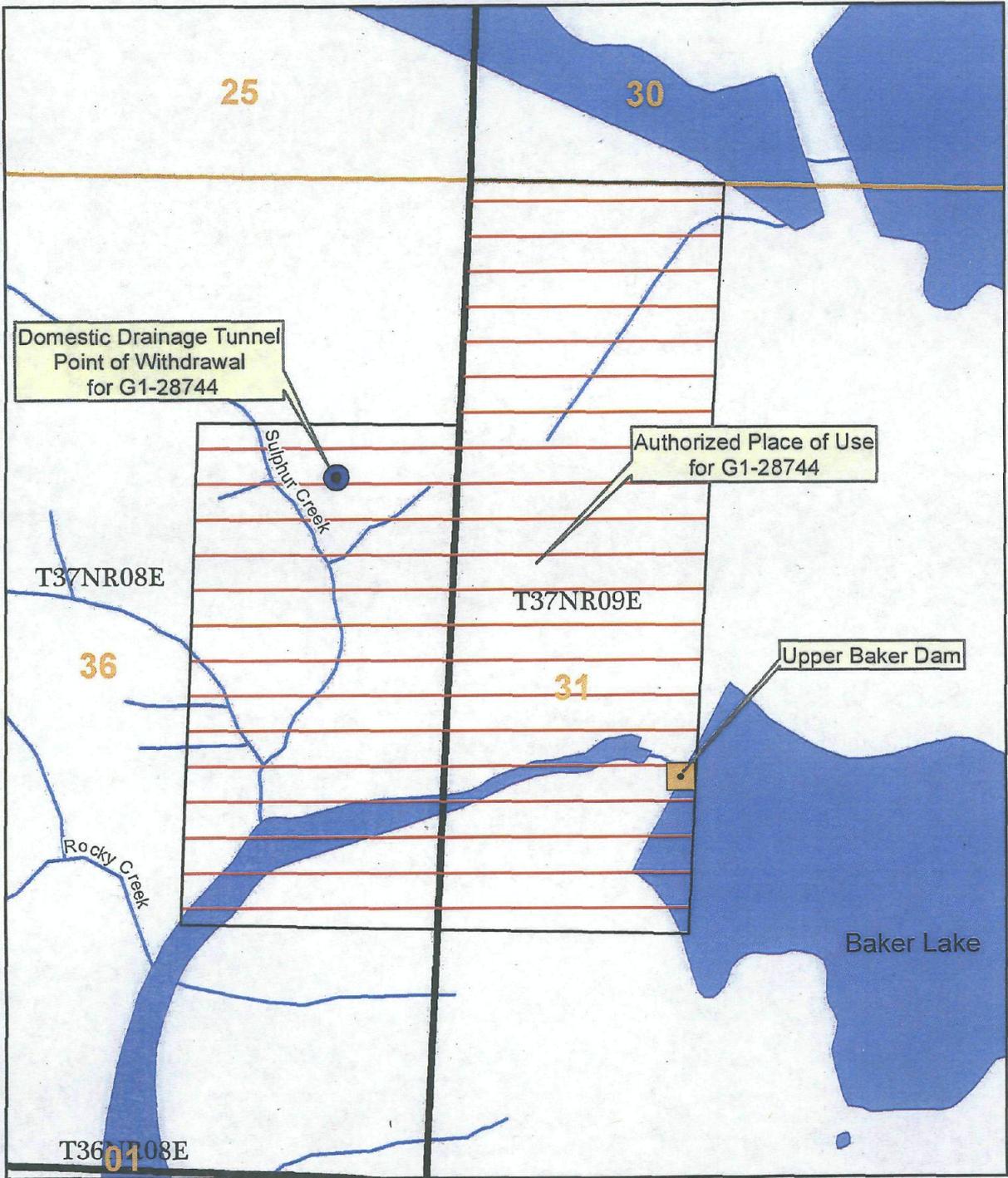
J. R. "BUCK" SMITH

June 10, 2013

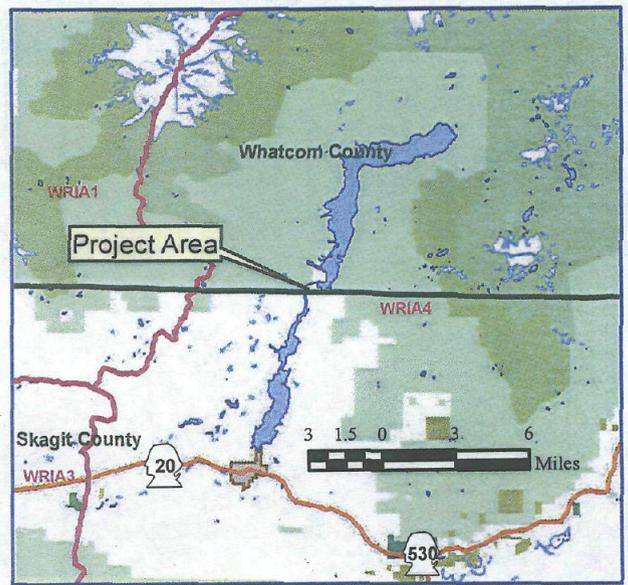
Buck Smith, Licensed Hydrogeologist (WA License #1479)

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.



Puget Sound Energy
 Water Right Number G1-28744
 Sec. 36 T 37N R 08E W.M.
 WRIA 4 - Whatcom County



- State Highway
- WRIA
- Water Courses
- Water Bodies
- Township
- Section
- Authorized Place of Use
- Groundwater Collector
- Surface Water Diversion
- Dam



5/2/2013

Place of use and point(s) of diversion/withdrawal are as defined on the cover sheet under the headings, 'LOCATION OF DIVERSION/WITHDRAWAL' and 'LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED.'