File No. G2-30633
WR Doc ID:5925472

DEPARTMENT OF
ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

PRIORITY DATE	APPLICATION NUMBER
10/4/2013	G2-30633

MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Rustic Ridge Water System 345 Hiddendale Road Quilcene, WA 98375	Rustic Ridge Drive Brinnon, WA 98320

Quantity Authorized for Withdrawal or Diversion

DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
40	gpm	12

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Municipal	40	-	gpm	12	-	Year-round as needed

Source Location

WATERBODY	TRIBUTARY TO	COUNTY	WATER RESOURCE INVENTORY AREA
Well		Mason	16

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well 1 (BCS 278)	324121200010	24N	3W	12	NW,NE	47.593919	123.003453
Proposed Well 2	324121200140	24N	3W	12	NW,NE	TBD	TBD

Datum: WGS84

Place of Use (See Map, Attachment 1)

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

The place of use (POU) of this water right is the service area described in the most recent Water System Plan/Small Water System Management Program approved by the Washington State Department of Health, so long as the water system is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

Proposed Works

One existing 6-inch well (Well 1) completed to 546.5 feet; and one proposed well completed at a similar depth.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	September 1, 2019	September 1, 2040

Measurement of Water Use

How often must water use be measured?	Monthly
How often must water use data be reported to Ecology?	Annually (Jan 31)
What volume should be reported?	Total Annual Volume
What rate should be reported?	Annual Peak Rate of Withdrawal (gpm)

Provisions

Measurements, Monitoring, Metering and Reporting

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

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

Chloride Monitoring

While it appears seawater intrusion at Well 1 is fairly low, a second well drilled nearer to marine water may be considered to be at risk, especially if the pumping water level in that well approaches sea level. We recommend annual chloride sampling of Well 1. However, if a second well is drilled, regular chloride monitoring will be required.

Chloride data is to be collected both in April and September and submitted in writing by January 31st of each year. Data collected shall consist of the following:

- Chloride and conductivity. Analyses must be performed by a state-accredited laboratory.
- Depth to static water level, with pump off long enough to allow water levels to stabilize

*The chloride/conductivity sampling and the static water level measurement must be collected at the same time.

If regular chloride sampling shows a steady increase in concentrations, Ecology may require preventative actions to ensure seawater intrusion does not occur. These actions may include reducing the instantaneous pumping rate, reducing the annual volume pumped, scheduling pumping to coincide with low tides, raising the pump intake, and/or limiting the number of service connections

Water Use Efficiency

Use of water under this authorization shall be contingent upon the water right holder's maintenance of efficient water delivery systems and use of up-to-date water conservation practices consistent with established regulation requirements and facility capabilities.

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(s), system instantaneous capacity, beneficial use(s), 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, diversions, measuring devices and associated distribution systems for compliance with 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; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. G2-30633, 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 Hearing 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 111 Israel RD SW STE 301 Tumwater, WA 98501	**Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

Signed at Olympia, Washington, this 28th day of May 2014.

Michael J. Gallagher

Michael J. Gallagher, Section Manager
Water Resources Program/SWRO
Department of Ecology

BACKGROUND

On October 4, 2013, Rob van de Weghe filed an *Application for Water Right Permit* with the State Department of Ecology. The project site is Mr. van de Weghe's Rustic Ridge water system, located in the Beacon Point area of Mason County, Washington. The applicant originally requested a water-right permit for up to 75 gallons per minute (gpm), and 16.5 acre-feet per year (af/yr) to serve 33 lots however he subsequently modified the application to reduce the number of lots of lots to 30 and annual withdrawal rate to 12 af/yr. The purpose of use is for municipal supply.

This application has been processed under Ecology's Cost Reimbursement Program. Pacific Groundwater Group (PGG) prepared this report under contract to Ecology. PGG reviewed all available documents pertaining to this and other related *Applications for Water Right*, including site conditions, hydrogeological and well-testing reports, historical water use, and the standing of existing rights.

Under the provisions of RCW 90.03.290 and 90.44, a water right may be issued upon findings that water is available for appropriation for a beneficial use, and that the appropriation will not impair existing rights or be detrimental to the public welfare. In accordance with these provisions, I recommend issuance of Permit G2-30633.

Table 1
Summary of Application No. G2-30633

Attributes	*Proposed*
Applicant	Rob van de Weghe for Rustic Ridge Water System
Application Received	10/4/2013
Instantaneous Quantity	75 gpm
Source	Well
Purpose of Use	Municipal supply
Period of Use	Year-round as needed
Place of Use	The place of use (POU) of this water right is the service area described in the most recent Water System Plan/Small Water System Management Program approved by the Washington State Department of Health, so long as the water system is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

Legal Requirements for Application Processing

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

Public Notice

A public notice of the proposed appropriation was published in the Shelton-Mason County Journal on November 7th and 14th 2013. No protests were received as a result of this notice.

State Environmental Policy Act (SEPA)

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met.

- It is a groundwater-right application for more than 2,250 gpm
- It is an application that, in combination with other water right applications for the same project, collectively exceeds the amounts above;
- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
- It is part of a series of exempt actions that, together, trigger the need to make a threshold determination, as defined under WAC 197-11-305.

None of these situations apply to this application. Accordingly, the subject application is categorically exempt under SEPA (WAC 197-11-305 and WAC 197-11-800(4)).

Water Resources Statutes and Case Law

Under the provisions of RCW 90.03.290 and 90.44.050, a water right shall be issued upon findings that water is available for appropriation for a beneficial use and that the appropriation, as proposed in the application, will not impair existing rights or be detrimental to the public welfare.

This application has been processed under Ecology's Cost Reimbursement Program. Based on the provisions of RCW 43.21A.690 and RCW 90.03.265, Pacific Groundwater Group (PGG) prepared this report under contract to Ecology.

INVESTIGATION

Evaluation of this application included, but was not limited to, research and/or review of the following:

- Department of Ecology records of surface and groundwater rights and claims, and of well construction reports within the vicinity of the subject production wells.
- *Seawater Intrusion into Coastal Aquifers in Washington, 1978* (Dion and Sumioka, 1984)
- *Geologic Map of the Eldon 7.5-Minute Quadrangle, Jefferson, Kitsap, and Mason Counties* (Contreras et al, 2012a).
- *Geologic Map of the Holly 7.5 Minute Quadrangle, Jefferson, Kitsap, and Mason Counties* (Contreras et al, 2012b)

- *Geology and Ground-Water Resources of Eastern Jefferson County, Washington* (Grimstad and Carson, 1981).
- *Hydrogeologic Study of the Lower Dosewallips/Brinnon Area.* Prepared for WRIA 16 Planning Unit. (Aspect Consulting, 2005).
- *Salmon and Steelhead Habitat Limiting Factors, Water Resource Inventory Area 16 Dosewallips-Skokomish Basin* (Correa, 2003).
- *Phase 1 Review for the Alpha Omega Water Right Application* (Northwest Water Systems, Inc, September 17, 2013).
- *Water Well Reports* from the Department of Ecology well log database (various dates).
- Records of water rights (and related information) in the vicinity of the subject property.

A field visit was conducted on February 25, 2014 by Jill Van Hulle of Pacific Groundwater Group, in the company of Mr. van de Weghe. The visit included review of the existing well and proposed additional well sites, a portion of the project site, the surrounding area including surface water drainages, some nearby water well locations and distribution structures, and surrounding residential areas.

Project Description

The intent of this application is to secure a water-right permit to serve the 30 lot Rustic Ridge water system. The system will be comprised of at least one well – although a second well may be constructed for both additional capacity and source redundancy. The project will include at least one reservoir and distribution piping.

The proposed development is located on the west shore of Hood Canal in the Beacon Point area of Mason County. The property was originally platted as small city-type lots in square blocks with straight streets, but the topography of the land was not suitable for this configuration and the property owners have gone through the boundary adjustment process to create a new footprint suitable for single family residences.

Site Description

The site is located about 2050-ft west of Hood Canal at an elevation of about 435 feet above sea level. The topography at the site slopes from west to east towards the Hood Canal. The slope profile is very steep west of the site, dropping from a bedrock ridge at about 2000 feet elevation to about 700 feet elevation over a horizontal distance of about 4000 feet. A much gentler slope then forms a topographic bench at the base of the ridge at an elevation sloping from 700 to 600 feet over a horizontal distance of about 3000 feet. The topography then steepens again below the bluff overlooking Hood Canal. The well site is located at the transition from the bench-like area and the steep bluff above the Hood Canal.

The place of use currently includes undeveloped land with a gravel access road. Water lines have been installed throughout the property and the well equipped with a pitless adaptor immediately adjacent to a pumphouse with storage tanks and system controls. The system will include 7,500 gallons of storage and does not currently need supplemental treatment.

Aquifer Characterization and Site Hydrogeological Conditions

Technical evaluation on this application was performed by Dawn Chapel, a licensed hydrogeologist with Pacific Groundwater Group. In consideration of this application Ms. Chapel reviewed the aquifer characteristics using published materials, as well as evaluated well logs and pumping tests specific to this project. The discussion of geology and hydrogeology in this section, as prepared by Ms. Chapel is primarily based on information presented by Contreras et al (2012a and 2012b), Grimstad and Carson (1981), as well as examination of maps and water-well logs.

The local geology appears consistent with other areas in Hood Canal which are dominated by unconsolidated glacial and interglacial deposits overlying basalt bedrock.

The geologic map and cross-section presented by Contreras et al (2012a and 2012b) shows the following geologic units near the well site from youngest to oldest:

- Vashon-stade ice contact deposits (Qgic): Fraser-aged recessional deposits consisting of subglacial melt-out till described as loose to very dense cobbly pebble gravel, silty sandy till, silty pebble gravel, and pebbly sand. The unit ranges in thickness from a few to tens of feet and typically occurs against the Olympic Mountains below a break in slope at approximately 1250 ft elevation. Grimstad and Carson (1981) describe the Fraser-age recessional deposits as generally having good porosity and permeability and where saturated can form an aquifer with significant water yields.
- Pre-Fraser-aged glacial drift deposits (Qpd): Compact glacial till and minor sandy pebble to cobbly gravel. The unit is mapped as discontinuous with a thickness of up to 150 feet near the well site. This till unit may be the equivalent of the Double Bluff Drift described by Grimstad and Carson (1981) which they characterize as an aquiclude low permeability unit that does not transmit water).
- Eocene Crescent Formation (Evc): volcanic basalt which commonly occurs as fine-grained sills and locally as pillows. The unit also contains rare thin sedimentary interbeds of marine siltstone and sandstone (Em). As described by Grimstad and Carson (1981), aquifers in the Cresent Formation occur within the interconnected water-filled joints and fractures of the basalt. Because of the random orientation of the fractures, well yields and depth to water in adjacent wells can vary greatly. This bedrock aquifer has limited yield and may be subject to seawater intrusion near the shoreline.

Most wells in the immediate area appear to have similar construction and generally produce water from water bearing units in the underlying basalt bedrock. The water-bearing nature of the basalt aquifer in this region is variable and appears primarily associated with permeable fractured zones (Aspect, 2005). Hard, less fractured basalt between the water bearing zones are much less permeable and limit vertical groundwater flow. Only a few wells appear to withdrawal water from the overlying unconsolidated deposits.

Well Construction and Testing

Well 1 was installed and tested in 2013 by Duckworth Pump and Drilling out of Poulsbo, Washington. The well is completed to a total depth of 546.5 feet bgs (111.5 feet below sea level). The well was drilled 6-inch diameter and has a bentonite surface seal extending to 18 feet bgs. A welded 6-inch diameter casing extends from the ground surface to 180 feet bgs. A 4.5-inch PVC liner was installed from 6 feet to 546.5 feet bgs with screened slots at 446 to 466 feet bgs and 506.5 to 546.5 feet bgs.

The well log for describes the upper six feet below ground surface (bgs) as "brown sandy gravel and boulders" and likely correlates to the Vashon ice-contact recession deposits. The next 176 feet (6 to 182 feet bgs) are described as "brown gravely hardpan/cobbles" and likely correlates to the Pre-Fraser drift deposits. Black basalt was encountered from 182 to 519 feet bgs. This well is completed in a water-bearing fractured basalt zone from 519 to 524 feet bgs (84 to 90 feet below sea level) and was described as "broken brown basalt with sandy-clay". Hard black basalt was encountered below this zone from 524 to 546.5 feet bgs. The overlying "black basalt" and underlying "hard black basalt" are likely much lower in permeability and limit vertical flow from the fractured water bearing zone. The static water level in Well 1 at time of drilling was 321 feet bgs (which is 114 feet above sea level).

Well 1 was tested for 9 hours at a pumping rate of 17.5 gpm for the first 3.5 hours followed by a pumping rate 15 gpm for the remainder of the test; an observation well was not used. Based on a measured specific capacity of 0.163 gpm/ft after the first 3.5 hours of the test and 125 feet of available drawdown, the well could likely produce up to 20 gpm. It is anticipated that a second well, similarly constructed could also produce between 15 and 20 gpm without significant drawdown interference. We recommend the allocation of 40 gpm, with the understanding that should the second well not be constructed consistent with the development schedule that the final certificate will be issued for the production capacity of the existing well.

The test drawdown data suggests significant wellbore storage loss during the first 15 minutes of pumping (rapid drawdown followed by slow long-term drawdown). A Cooper-Jacob solution for confined aquifers to the slow long-term drawdown indicates an aquifer transmissivity (T) of 93 ft^2per day (ft^2/d).

Using the T-value of 93 ft^2/d and a typical storage coefficient (S) for basalt aquifers ($1x10^{-5}$), long-term drawdown and boundary effects from Hood Canal were evaluated in Aqtesolv™ using the Theis solution for confined aquifers. This analysis assumes a constant pumping rate of 20 gallons per minute for 100 days. The long-term drawdown is predicted to be 65 feet (this does not include an additional 55 feet of drawdown in the well itself predicted from well loss). Recharge boundary effects from the Hood Canal (less drawdown) are predicted to impact the well after about 500 minutes (about 8 hours) of pumping. Possible recharge boundary effects were also observed in the drawdown data towards the end of the pumping test.

If a second well is constructed it will be located about 1,075 feet distance from the existing well at a lower elevation of approximately 250 feet and about 1,200 feet inland from Hood Canal. Using the same analysis as above but for two wells each pumping at a constant rate of 20 gallons per minute (40

gpm total) for 100 days, the long term drawdown (not including well loss) is predicted to be 73 feet in the existing well (Well 1) and 60 feet in the new well.

Effect on Other Water Rights

Interference drawdown in existing nearby by water supply wells from operation of the site well was evaluated by Dawn Chapel (PGG). PGG conservative projections assumed 100-days of continuous operation at 20 gallons per minute (gpm). This rate and duration is likely the most that could be needed to meet a particularly high summer-demand period, but is considerably higher than the average withdrawal rate which is 7.44 gpm. Based on water system operations and storage capacity, operation at this peaking amount is expected to be infrequent.

The Theis solution in Aqtesolv™ was used for the analysis. This solution is appropriate for these conditions and assumes a homogenous aquifer with a defined thickness of 25 feet (thickness of the basalt water bearing zone observed in Well 1) and although there is some uncertainty in the heterogeneity and continuity of the water bearing zone, the analysis provides a reasonable estimate of potential interference drawdown.

The results show that the long-term predicted drawdown in the nearest existing water supply well (Knudsen well, about 1100 feet east of the site well) would be 7 feet (assuming that this well is completed in the same water bearing zone with hydraulic continuity). The well log for the Knudsen well indicates about 285 feet of available drawdown in the well. The predicted conservative impact therefore represents about only 2.5% of the available drawdown and should not be enough to affect the reasonable use of the Knudsen well.

Effect to Instream Flows

Under the provisions of WAC 173-516 instream flows were established for some surface water bodies in WRIA 16.

The Rustic Ridge well is located within a half mile of three small streams, Big Creek and Little Creek to the south and Schaerer Creek to the north. Stream discharge data is not available for any of the creeks. Big Creek and Little Creek are not identified on the USGS 7.5 minute topographic map and appear to be relatively small streams (possibly intermittent) along the bluff overlooking Hood Canal. Both appear to originate from a wetland areas on the topographic bench upslope of the bluffs and are likely fed by shallow groundwater in the unconsolidated deposits and surface runoff. A section of the lower reach of Big Creek along the steep bluffs overlooking Hood Canal was mapped by Contreras et al (2012a) as the Crescent Formation and it is possible that springs/seeps originating from bedrock provide some flow to the creeks along the steep slope of the bluff where the unconsolidated deposits are less thick and/or eroded away.

Schaerer Creek is identified on the USGS 7.5 minute topographic map as an unnamed creek originating from the steep bedrock ridge to the west. Water resource habitat surveys conducted for WRIA-16 (Correra, 2003) indicate Schaerer Creek is a steep gradient "confined" stream with small runs of coho and chum observed in the lowest 0.2 mile reach. An impassable natural falls restrict further upstream migration. Stream flow to Shaerer Creek is likely a combination of surface runoff, discharge from small

springs/seeps originating along the bedrock ridge to the west, and shallow groundwater discharge from unconsolidated deposits below the ridge along the bench-area. The lowest reach of Schaerer Creek (first 1000-ft) is mapped by Contreras et al (2012b) as marine siltstone and sandstone interbeds of the Crescent Formation. It is possible that groundwater in some of the more permeable layers of this unit also provide additional flow along this lower reach.

While none of the three streams have been formally closed by WAC, Ecology is still required to address the potential for new groundwater withdrawals to impact instream habitat.

Because the static water level in Well 1 is at an elevation of 114 feet above msl, impacts to instream flows would be limited to the lowest reaches along the steep bluffs overlying Hood Canal.

Potential drawdown in the bedrock aquifer along these lower reaches from operation at the site well was conservatively projected assuming 100-days of continuous operation at 20 gpm. This rate and duration is likely the most that could be needed to meet a particularly high summer-demand period. Based on water system operations and storage capacity, operation at this peaking rate and duration is expected to be infrequent.

Aqtesolv™ was used for the analysis and the results show that the long-term predicted drawdown in the basalt bedrock aquifer along these lower reaches of nearby streams is relatively small and not likely to have any adverse impact on the surface water system of these creeks. Potential long-term drawdown in the basalt water bearing zone along the lower reaches of Schaerer Creek and Big Creek is predicted to be 2-feet and along the lower reach of Little Creek is predicted to be 3-feet. The depth of the fractured basalt water bearing zone in Well 1 is 84 to 90 feet below sea level. Given the presence of an overlying basalt unit of lower permeability, there would be limited hydraulic connections between the creek and the supply zone; accordingly we wouldn't expect any impact to creek flow.

Seawater Intrusion

Elevated chloride concentrations in a particular area can indicate seawater intrusion is occurring. Dion and Sumioka (1984) sampled a number of wells along HWY 101 near and north of Triton Head. Most had chloride concentrations ranging from 1 to 4 milligrams per liter (mg/L), which is considered to be very low. Water samples collected from Well 1 on 9/13/13 had chloride levels of 1.2 mg/L, close to the same levels in this report. The Maximum Contaminant Level (MCL) allowed according to Federal standards for chloride is 250 mg/l.

Wells located close to marine water are at risk for seawater intrusion, especially if there is a hydraulic connection between an aquifer and marine water and the hydraulic head of the fresh ground water is being lowered due to pumping.

Although Well 1 is drilled into a basalt water bearing zone at an elevation that is below sea-level the maximum observed drawdown in the well during the 9 hour pumping test was still 22 feet above sea level (this includes about 42 feet of drawdown in the well itself due to well loss, thus the drawdown in the aquifer is actually less). The risk of saltwater intrusion is therefore likely very low.

The static water level in Well 1 is 114 feet above sea level (321 feet bgs). The maximum long-term drawdown in Well 1 is predicted to be 65 feet (or 49 feet above sea level). This predicted drawdown does not include additional drawdown in the well itself from well loss - which is predicted to be 55 feet. Therefore, even during long-term pumping at conservatively high rates, the water level is predicted to be 49 feet above sea level.

Seawater intrusion was further evaluated using a spreadsheet screening tool developed at Pacific Groundwater Group for assessing saltwater intrusion. The screening tool uses marine water density and aquifer configuration to calculate the critical water level (i.e. the water level below which salt water intrusion is predicted to occur). The screening tool also applies the Theis equation to predict pumping water levels between the well and coast which can then be used to compared to the critical water level for assessing potential sea water intrusion.

Results of the analysis indicate the critical water level is 2.35 feet above sea level – above this elevation, lateral intrusion would not be expected from pumping in this aquifer. Given the steep hydraulic gradient in the coastal vicinity, water levels for all wells should be well above this critical elevation.

While it appears seawater intrusion at Well 1 is fairly low, a second well drilled nearer to marine water may be considered to be at risk, especially if the pumping water level in that well approaches sea level. We recommend annual chloride sampling of Well 1, if a second well is drilled; regular chloride monitoring of that well will also be required, as addressed in the provisions of this determination.

Quantities for Permit

The Average Daily Demand (ADD) for domestic supply of single family homes in this area is projected to be approximately 350 gallons per day per connection. For the 30 homes proposed to be supplied from this system recommend that allocation of 12 acre-feet per year, as needed year-round.

Priority Processing

RCW 90.03.265(2) provides that, in pursuing a cost-reimbursement project, the Department must determine the source of water from which the water is proposed to be diverted or withdrawn, including the boundaries of the area that delimit the source. The Department must determine if any other water-right applications are pending from the same source. A water source may include surface water only, groundwater only, or surface and groundwater together, if the Department finds they are hydraulically connected. The Department shall consider technical information submitted by the applicant in making its determinations under this subsection.

RCW 90.03.265(1)(b) provides that the requirement for an applicant to pay for the processing of senior applications does not apply in situations where the water allocated to one party will <u>not diminish</u> the water available to a senior applicant from the same source.

The nearest pending application was filed by Jerry Reid on behalf of the Beacon Point Company. We understand that Mr. Reid has sold the property and the application is no longer active. Because there

are no other pending groundwater applicants that will be affected by the requested allocation, this application can be processed prior to other pending applications.

Four Statutory Tests

This Report of Examination (ROE) evaluates the application based on the information presented above. 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

According to RCW 90.14.031, municipal supply is considered a beneficial use of water.

Availability

Water is available for appropriation. Well 1 appears capable of producing a sustained 15 gpm and up to 20 gpm. It is likely that a similarly constructed well will be able to produce a comparable amount. Water is, therefore, judged to be available for appropriation under existing Ecology regulations.

Potential for Impairment

The approval of this application will not impair existing rights or instream flows.

A review of Ecology records indicates that within a one mile radius of Well 1 there are four water right certificates and one short form claim. Details of these are listed below:

Document	Name	Type	Date	Use	Qi	Qa	TRS
G2-21392C	Beacon Point Community Club	Cert	8/17/1973	DM	60 gpm	72	24N 2W 6
G2-26110C	MORRIS RAYMOND F	Cert	3/10/1982	DM	50 gpm	2.8	24N 3W 11
G2-30089	Beacon Point Co	NewApp	11/25/2002	DM	12 gpm		24N 3W 11
G2-077655CL	MUNROE KENNETH L.	Claim S		DG			24N 3W 12
1774	Girl Scouts of America	Cert	7/25/1939	IR,DM	0.4 cfs		24N 3W 12
2141	Girl Scouts of America	Cert	7/25/1939	DM	0.03 cfs		24N 3W 12

- Of the certificates, two are surface water rights associated with the Girl Scout camp. One (1774) is for irrigation from Big Creek, and the other (2141) for a spring. Since the camp is now supplied by an exempt well it is unknown whether these diversion systems are still active, but

regardless there should be no effect to surface water bodies from the operation of the subject well.

- Groundwater certificate G2-26110 was issued to Raymond Morris for group domestic supply of what appears to be the Group B Beacon Point water system located about 1000 feet away from Well 1. The Morris well is distinctly different than the Rustic Ridge well and described as a being only 75 feet in depth and flowing under artesian pressure.

- Finally certificate G2-21392 is associated with the Beacon Point Community Club water system. Beacon Point is the nearest public water system situated 1,500 feet north of the proposed Rustic Ridge system. The Beacon Point CC system serves water to about 120 lots from wells located near the entrance to development near Hwy. 101

Well log records were queried and identified exempt 4 wells within an approximate ½ mile radius of Well 1. These wells are assumed to be associated with small exempt groundwater uses such as single domestic supply, as well as a small domestic system called Sea Gull WS. As discussed previously, none of these other groundwater sources are located within close enough proximity to the Rustic Ridge well to be affected by the applicant's proposed withdrawals.

Public Welfare

No detriment to the public interest was identified during the investigation of the subject application.

CONCLUSIONS

The conclusions based on the above investigation are as follow:

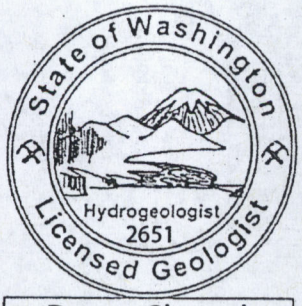
1. The proposed appropriation for municipal supply is a beneficial use of water;
2. The recommended allocation of 40 gpm and 12 acre-feet are available for appropriation;
3. The new appropriation will not impair senior water rights; and
4. The new appropriation will not be detrimental to the public interest.

RECOMMENDATION

Based on the information presented above, the author recommends that the request to appropriate 75 gpm be approved in the amounts described, limited, and provisioned on page 1 through 3 of this report.

Reported by: Jill E Van Hulle

Jill Van Hulle, Pacific Groundwater Group Date



Dawn Chapel

Reported by: Dawn Chapel

Dawn Chapel, Pacific Groundwater Group Date

Reviewed by: Tammy Hall 5/28/2014

Tammy Hall, Water Resources Program Date

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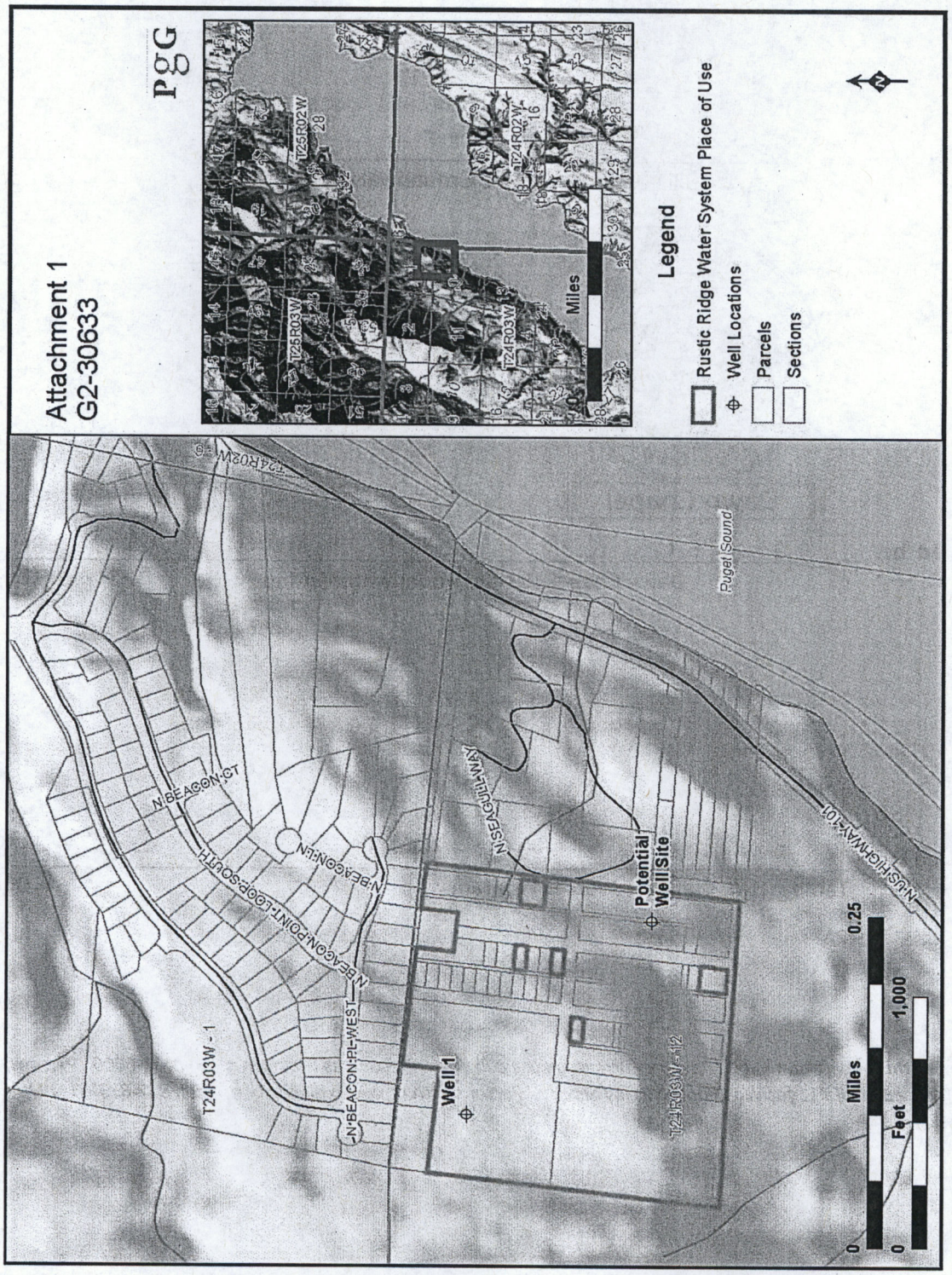
Attachment 1
G2-30633
pgG
T25R03W
T25R02W
T24R03W
T24R02W
Miles
Legend
Rustic Ridge Water System Place of Use
Well Locations
Parcels
Sections
N
T24R02W - 5
N BEACON CT
N BEACON POINT LOOP SOUTH
N BEACON EN
N BEACON PL WEST
T24R03W - 1
Well 1
N SEAGULL WAY
Potential Well Site
T24R03W - 12
Puget Sound
N US HIGHWAY 101
0
Miles
0.25
0
Feet
1,000