

File No. G1-28669
WAC Doc ID: 4694256

State of Washington
**REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION**

PRIORITY DATE
08/23/2010

APPLICATION NUMBER
G1-28669

MAILING ADDRESS
Mr. Pat Stephens
P.O. Box 32330
Bellingham, WA 98228
e-mail pat@pigcoinc.com

SITE ADDRESS (IF DIFFERENT)
From **Northbound I-5**, take Exit 236, Bow Hill Road. Turn left (West) across freeway. Proceed about 0.5 mile and turn right on Hobson Road. Follow Hobson to stop sign at Colony Road. Turn right on Colony Road. After about 1.25 miles, turn left on Wood Road. Follow Wood Road about 2.5 miles to site access road on North side of Wood Road.

From **Southbound I-5**, take exit 240, Lake Samish Road turn left across freeway and go about 0.3 miles and turn right on Colony Road. After about 1.75 miles, turn right on Wood Road. Follow Wood Road about 2.5 miles to site access road on North side of Wood Road.

Quantity Authorized for Withdrawal or Diversion

DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
50	GPM	22.5

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Municipal Water Supply Purposes	43		GPM	11.25		Continuously
Mitigation – non-consumptive (preservation of environmental and aesthetic values)	7		GPM	11.25		Continuously

Source Location

WATERBODY	TRIBUTARY TO	COUNTY	WATER RESOURCE INVENTORY AREA
Well-groundwater aquifer		Skagit	1

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well APF313	P48086	36N	03E	23	SW SE	48.58939N	122.38417W

Datum: WGS84

Place of Use (See Map, Attachment 1)

PARCELS

P48084, P48085, P48086, P48087, P48093, and P48095

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

The northeast quarter of Section 23, Township 36 North, Range 3 East, W.M.

TOGETHER WITH the east 412.5 feet of the west half of that portion of the southeast quarter of said Section 23, lying north of Wood Road; EXCEPT any portion thereof lying within the west 247 feet of the east half of the southeast quarter of the southwest quarter of Section 23, Township 36 North, Range 3 East, W.M.

Together WITH that portion of the north half of the south half of the northwest quarter of Section 23, Township 36 North, Range 3 East, W.M., lying easterly of Wood Road

Proposed Works

Water withdrawn from a 6-inch diameter well using a 2 horsepower pump. Water will be pumped into a small storage tank (approximately 1,000 gallons) at the well site and pumped uphill to the residential lots. There will be a 23,500-gallon concrete storage tank at the uphill location. The project will include a total of 27 lots with 25 residential connections and two large open-space lots. It will be known as the Blanchard Knob Water System.

Mitigation water will be pumped from the well, directed through a pipeline constructed along Wood Road, aerated, and discharged into Colony Creek.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	December 31, 2018	December 31, 2026

Measurement of Water Use

What water uses should be measured?	Municipal purpose and mitigation, metered separately
How often must water use be measured?	Weekly
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 Northwest Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Northwest Regional Office for forms to submit your water use data.

Colony Creek – Mitigation Plan

The project proponent has proposed mitigation for anticipated impacts to Colony Creek. The proponent's mitigation plan (Associated Earth Sciences Technical Memorandum, dated January 16, 2012, and Skagit Surveyors & Engineers Technical Memorandum, dated January 24, 2012) includes continuously discharging 7 gpm of groundwater from the well through a closed pipe into the western-most branch of Colony Creek where it crosses Wood Road. Groundwater will be adequately aerated prior to discharging into the perennial stream.

In order to use this water right for municipal water supply purposes, the mitigation plan must be followed and must be in place and operating when the water is first put to beneficial use for municipal purposes.

Should the water right certificate issue for less municipal water than approved under this report of examination, the mitigation rate will also be equivalently reduced so that it is equal to the rate calculated by spreading the annual volume out over the entire year.

Department of Fish and Wildlife Requirement(s)

A Hydraulic Project Approval (HPA) permit will be required for construction related to any outfall of water to Colony Creek as part of the applicant's proposed mitigation for impacts on Colony Creek.

Easement and Right-of-Way

The water source and/or water transmission facilities are not wholly 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 applicant and owner of that land.

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. G1-28669, 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.

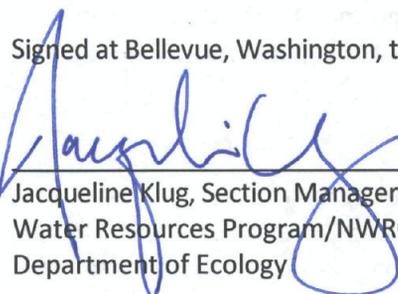
- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

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

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> .

Signed at Bellevue, Washington, this 12th day of April 2012.



 Jacqueline Klug, Section Manager
 Water Resources Program/NWRO
 Department of Ecology

INVESTIGATOR'S REPORT

Application for Water Right – Pat Stephens

Water Right Control Number G1-28669

Jim Bucknell & Andrew Dunn, RH2 Engineering, Inc.

BACKGROUND

Cost Reimbursement

This application is being processed under a cost reimbursement agreement between the applicant and the Department of Ecology. This report has been prepared by RH2 Engineering, Inc.

Attributes of Proposal

Table 1 – Application Summary

Name	Pat Stephens
Priority Date	8/23/2010
Instantaneous Rate	50 gpm
Annual Quantity	80 af/yr
Purpose(s) of Use	Domestic – Multiple*
Period of Use	Continuously
Place(s) of Use	The northeast quarter of Section 23, Township 36 North, Range 3 East, W.M. TOGETHER WITH the east 412.5 feet of the west half of that portion of the southeast quarter of said Section 23, lying north of Wood Road; EXCEPT any portion thereof lying within the west 247 feet of the east half of the southeast quarter of the southwest quarter of Section 23, Township 36 North, Range 3 East, W.M.**

*The proposed use satisfies the definition of a municipal water supply purpose water right as defined in RCW 90.03.015(4).

**Additional parcels identified in this ROE were added after the initial application.

Table 2 – Proposed Source of Withdrawal

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Well	P48086	APF313	36N	03E	23	SW SE	48.58939N	122.38417W

Note: The well log for APF313 indicates that it is located on parcel P48132. However, this parcel was deleted and has been combined with P48086.

Legal Requirements for Approval of Appropriation of Water

RCW 90.03 and 90.44 authorize the appropriation of public water for beneficial use and describes the process for obtaining water rights. Laws governing the water right permitting process are contained in RCW 90.03.250 through 90.03.340, and RCW 90.44.050. In accordance with RCW 90.03.290, determinations must be made on the following four criteria in order for an application for water rights to be approved:

- Water must be available
- There must be no impairment of existing rights
- The water use must be beneficial
- The water use must not be detrimental to the public interest (welfare)

This report serves as the written findings of fact concerning all things investigated regarding Water Right Application Number G1-28669.

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, diverted, and used. Notice of this application was published in the Skagit Valley Herald commencing with the issue of February 14, 2011, and ending with the issue of February 21, 2011.

For future reference related to RCW 90.44.100(3) and (4), the point of withdrawal was identified in the public notice as being within the SW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 23, Township 36N, Range 3E W.M.

Consultation with the Department of Fish and Wildlife and Local Indian Tribes

Ecology must give notice to the Washington State Department of Fish and Wildlife (WDFW) of applications to divert, withdraw or store water (RCW 77.57.020).

On December 19, 2011, an email was sent to Steve Boessow, Water Rights Biologist, at WDFW to solicit his comments. This email included a copy of the water right application as an attachment. Mr. Boessow replied to the email on the same day and confirmed that Colony Creek is utilized by Fall Chinook, Coho, and Fall Chum in addition to Cutthroat Trout. On February 7, 2012, WDFW submitted a comment letter indicating acceptance of the mitigation plan and requesting the water right be provisioned on obtaining an HPA permit to construct the mitigation discharge structure near/in the creek.

Ecology confirmed that interested Tribes were provided with either electronic or hard copy notice of the application at the end of September 2010. No protests or comments were received from the Tribes.

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.

- (a) It is a surface water right application for more than 1 cubic feet per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies.
- (b) It is a groundwater right application for more than 2,250 gpm.
- (c) It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above.
- (d) 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).
- (e) It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

A subdivision of land owned by PS 103, LLC, (Blanchard Knob Conservation and Reserve Development (CaRD)) has complied with SEPA and been approved by Skagit County for 9 residential lots. Since the intent of this water right is to be able to provide public water service to a place of use, which is currently owned by multiple parties and only partially developed, any further subdivision of that raw land will likely require those landowners to go through the SEPA process.

The current water right application does not meet any of the conditions listed above and this water right application is therefore categorically exempt from SEPA and a threshold determination is not required.

INVESTIGATION

Proposed Use and Basis of Water Demand

The water is proposed for use as domestic supply for a residential development consisting of a total of 25 proposed connections. This development, as proposed, will constitute a Group A public water system and as such, will be subject to the rules and regulations of the Washington State Department of Health (WDOH). In allocating water for such public water systems, an estimated demand of 400 gallons per connection per day is typically used in Western Washington by WDOH. While actual use is often less than that, this figure is designed to accommodate the peak use days of the system and ensure that the system is properly designed and sized to meet peak flow needs. Twenty-five connections using 400 gallons per day (gpd) would use a total of 11.25 acre-feet per year of water.

Purpose of Proposed Project

Municipal Component

The proposed project is for a public water system to serve parcels currently owned by three private entities (BS 80 LLC – James Bell; PS 103 LLC – Pat Stephens; and Ronald Roosma). Since the proposed project will serve up to 25 connections, the water right to be used by these connections, if approved, will issue for municipal water supply purposes, consistent with the definition in RCW 90.03.015(4).

Table 3 – Property Ownership within Proposed Place of Use and Potential Development

Property Owner	Tax Parcels	Lot Certification Permit #	Potential Connections
BS 80 LLC	P48086 and P48087	PL08-0531 REVISED	11
PS 103 LLC	P48084 and P48085	PL08-0530 REVISED	9
Ronald Roosma	P48093 and P48095	PL03-0900	5
		Total	25

Each of these entities may be able to subdivide their property as has been approved for the PS 103 LLC property (Blanchard Knob). The potential subdivision of these parcels is shown in **Table 3** above. The Blanchard Knob Long CaRD is comprised of 10 lots – 9 building lots and 1 large non-building open space lot. It is anticipated that the other properties will also be developed using the CaRD process. The project proponents anticipate a total of 27 lots. The total number of water connections anticipated by the water system is 25. This will constitute a Group A water system and be regulated by WDOH, Drinking Water Program. The remaining two lots would be large open-space lots.

The applicant has requested an allocation of 400 gpd per connection. While 400 gpd per connection is likely higher than will ultimately be used on an annual average basis, it is reasonable as it allows for peak daily use and will be used to determine the annual volume allocated for municipal water supply purposes. **Table 4** contains a breakdown of the water allocated.

Table 4 – Calculation of Proposed Allocation for Municipal Water Supply Purposes

Proposed Number of Connections	25
Proposed Average Daily Demand (ADD) per Connection	400 gpd (0.45 af/yr/connection)
Annual Quantity	11.25 af/yr (for 25 connections)

Mitigation Component

The applicant has proposed a flow augmentation mitigation strategy to offset impacts to Colony Creek. The proposal is for a continuous discharge of 7 gpm from the well into Colony Creek. The water allocated for use as mitigation will be non-consumptive in nature and will be identified separately from the municipal water supply purpose water as shown in **Table 5** but is included in the 50 gpm requested in this application.

Table 5 – Calculation of Proposed Mitigation Allocation

Proposed Continuous Discharge Rate	7 gpm
Annual Quantity	11.25 af/yr

Other Rights Appurtenant to the Place of Use

No other water rights were identified as being appurtenant to the place of use.

Hydrogeologic Evaluation

The majority of the information in this section comes directly from Associated Earth Sciences, Inc. (AESI).

The proposed point of withdrawal (APF313) is located on the southern margin of what is locally referred to as Blanchard Mountain. Blanchard Mountain is the southern end of the Chuckanut Mountains, which extend northward into Whatcom County. Samish Bay is located approximately 2 miles west of the proposed point of withdrawal. Even though Blanchard Mountain is in northwestern Skagit County, it is still in Water Resources Inventory Area (WRIA) 1 (Nooksack).

Ground surface elevation at the well is approximately 360 feet above mean sea level (MSL). The surficial geologic unit mapped at the well site is Vashon glacial till. The well log described the geologic material for the upper 168 feet of the boring as being consistent with a mixture of fine and coarse-grained material (diamict) that is consistent with glacial till, as mapped. From a depth of 168 feet to 291 the well log reports that sand and gravel was encountered. This material was interpreted as being Vashon advance outwash. At the very bottom of the boring, clay was identified as being mixed in with gravel and sand. This fine-grained unit could either represent a lense within the advance outwash deposits, or it could mark the bottom of the advance outwash deposit and top of the underlying Olympia non-glacial deposits.

The well was drilled to a total depth of 291 feet with the screened interval from 279 to 290 feet below ground surface. Depth to static water level has been approximately 238 feet below the top of the casing (1.7 feet above ground surface), which is an elevation of approximately 124 feet above MSL (Table 6). The well log suggests that the aquifer is unconfined and has a saturated thickness of approximately 53 feet of sand and gravel.

The static water level in the well has not changed significantly since it was drilled over 3 years ago.

Table 6 – Static Water Level in the Proposed Point of Withdrawal (APF313)

Date	Static Water Level Below the Top of the Casing (feet)	Source of Information
August 18, 2008	238	Well Log
September 10, 2008	238.35	AESI, 2009
September 11, 2008	238.35	AESI, 2010
December 15, 2011	238.18	Site Visit

A 24-hour constant rate pumping test was performed by AESI on September 11, and 12, 2008 (AESI, 2010). The pumping rate from the well was 54 gpm and the total drawdown measured in the pumping well was 0.29 feet with no drawdown observed in Well APF312, which is located approximately 285 feet to the north of APF313 and is completed in the same aquifer.

During the aquifer test, field water quality parameters were sampled. Temperature, electrical conductivity, salinity, and pH remained relatively steady during the test. A water sample was collected for laboratory analysis after approximately 5 hours of pumping. The only parameter that exceeded a secondary maximum concentration limit (SMCL) was manganese with a concentration of 0.180 milligrams per liter (mg/L), which is above the SMCL of 0.05 mg/L. It is common for groundwater in western Washington to contain elevated levels of manganese.

Well APF313 is completed in an aquifer above MSL; therefore, seawater intrusion is not a concern.

The aquifer is truncated to the north against low permeability bedrock (Darrington Phyllite). The aquifer is believed to exist in the subsurface to the south, east, and west.

Groundwater flow direction in this aquifer was locally determined by AESI to be roughly to the southwest. A study of the regional groundwater flow in the Samish Basin that was performed as part of watershed planning created groundwater contours for the advance outwash aquifer in this area which would suggest groundwater flow to the west-southwest (GeoEngineers, 2001). The similarities in groundwater flow direction between the regional and site-specific studies help to support the conceptual model that groundwater flow is generally from the upland areas toward ultimate discharge in Samish Bay.

Incision of Colony Creek in Section 26, Township 36N, Range 3E W.M. has exposed advance outwash deposits. It is likely that Colony Creek is in hydraulic continuity with the advance outwash aquifer in this location and the Creek is a gaining reach through this section as it is fed by groundwater discharge from the aquifer. Not all groundwater in the aquifer discharges to Colony Creek and the groundwater that continues past the creek joins the groundwater flow regime beneath the Samish Flats and ultimately discharges out into the marine water of Samish Bay.

Mitigation Plan

While this water right application was being processed, the applicant prepared and then revised a mitigation plan to address possible impacts to Colony Creek. In the mitigation plan (AESI, January 16, 2012) the applicant has stated the following:

The proposed mitigation plan for water right application G1-28669 will consist of diverting a portion of the water removed from Well APF313 to a south-flowing perennial tributary of Colony Creek located immediately east of the project site (see AESI's January 10, 2011 report). The mitigation water will be conveyed to the point of discharge in a closed pipe and the water will be adequately aerated prior to discharging into the perennial tributary at a continuous rate of 7 gpm.

Further detail was provided by Skagit Surveyors & Engineers (January 24, 2012):

The proposal is to pump water from the well and pipe it from the well south to the property line and then east along Wood Road to its intersection with Colony Creek. At that point, the pipe will discharge to the creek at a continuous rate of 7 gallons per minute. From an engineering perspective this approach is feasible and will be constructed as part of the required improvements to Wood Road. The pipe will be placed in either the roadside ditch or the edge of the roadway itself. A franchise agreement between Skagit County and the water association will be required as is typical for utilities within the County Right of Way. Discharge into Colony Creek will require Washington

State Department of Fish and Wildlife approval in the form of an HPA. (Note: "placed" used in this context means "buried.")

The mitigation discharge point referenced above is located at latitude 48.59221N and longitude 122.37820W in the NW ¼ SW ¼, Section 24, Township 36N, Range 3E, W.M. and is shown on Attachment 1.

Impairment Considerations

Impairment is an adverse impact on the physical availability of water for a beneficial use that is entitled to protection. A water right application may not be approved if it would:

1. Interrupt or interfere with the availability of water to an adequately constructed groundwater withdrawal facility of an existing right. An adequately constructed groundwater withdrawal facility is one that (a) is constructed in compliance with well construction requirements and (b) fully penetrates the saturated zone of an aquifer or withdraws water from a reasonable and feasible pumping lift.
2. Interrupt or interfere with the availability of water at the authorized point of diversion of a surface water right. A surface water right conditioned with instream flows may be impaired if a proposed use or change would cause the flow of the stream to fall to or below the instream flow more frequently or for a longer duration than was previously the case.
3. Interrupt or interfere with the flow of water allocated by rule, water rights, or court decree to instream flows.
4. Degrade the water quality of the source to the point that the water is unsuitable for beneficial use by existing users (e.g., sea water intrusion).

Impairment, Qualifying Ground Water Withdrawal Facilities, and Well Interference

The issuance of this water right and the subsequent withdrawal of water for the proposed project would not be expected to interrupt or interfere with the availability of water for any existing ground water users. This includes both ground water users with existing water rights issued by the State of Washington and those with rights established by putting to use water withdrawn from a so-called exempt well pursuant to RCW 90.44.050. This conclusion is based on the results of the pumping test.

The issuance of this water right and the subsequent withdrawal of water for the proposed project would not be expected to interrupt or interfere with the availability of water at the authorized point of diversion of a surface water right. The evaluation of this application has included an analysis of the anticipated impact on Colony Creek, the nearest surface water body, and, if approved, the applicant will be required to mitigate for any impacts on Colony Creek, which is a closed water body and on which no adverse impacts are allowed. The mitigation plan as presented and revised will lead to a calculated increase in stream flow from the mitigation discharge point at Wood Road to approximately 1 mile downstream of 7 gpm. Stream flow downstream of where Colony Creek is in contact with the advance outwash aquifer is calculated to increase by 4.2 gpm year round.

There is no evidence to suggest that this project will degrade the water quality of the source to the point that it would be come unsuitable for beneficial use by existing water users. In fact, the Skagit County Hearing Examiner has stated that "the proposal, as conditioned, makes "adequate provisions" for public health, safety, and welfare and for infrastructure and facilities as required by RCW 58.17.110(2)(a)."

(Note: the Hearing Examiner's decision document incorrectly cited the state platting statute by omitting the "17", i.e., "RCW 58.110(2)(a)" but after an inquiry from RH2 has correctly identified the citation.)

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 ground or surface water present in quantities and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use or uses. In addition, the following factors are considered.

- Volume of water represented by senior water rights, including federal or tribal reserved rights or claims.
- Water right claims registered under Chapter 90.14 RCW.
- Groundwater uses established in accordance with Chapter 90.44 RCW, including those that are exempt from the requirement to obtain a permit.
- Potential riparian water rights, including non-diversionary stock water.
- Lack of data indicating water usage can also be a consideration in determining water availability, if the department cannot ascertain the extent to which existing rights are consistently utilized and cannot affirmatively find that water is available for further appropriation.

The aquifer testing that has been performed has shown that water is physically available from the well and aquifer at the rate requested. In addition, the steady water level elevation over time suggests that the aquifer is not currently being mined by other appropriators and can accommodate the added withdrawal.

Legal Availability

To determine whether water is legally available for appropriation, the following factors are considered.

- Regional water management plans, which may specifically close certain water bodies to further appropriation.
- Existing rights that may already appropriate physically available water.
- Fisheries and other instream uses (e.g., recreation and navigation). Instream needs, including instream and base flows set by regulation. Water is not available for out-of-stream uses where further reducing the flow level of surface water would be detrimental to existing fishery resources.
- Ecology may deny an application for a new appropriation in drainage where adjudicated rights exceed the average low flow supply, even if the prior rights are not presently being exercised. Water would not become available for appropriation until existing rights are relinquished for non-use by state proceedings.

WAC 173-501-040 lists Colony Creek as being closed year round to further consumptive appropriation.

This administrative closure means that there is no water legally available for further consumptive appropriation from Colony Creek. While this water right application is for groundwater, it appears that there is hydraulic continuity between the groundwater source and Colony Creek once the creek incises into the advance outwash aquifer (AESI, 2011). Therefore, any impacts to Colony Creek that would result in reduced stream flow, no matter how small, must be offset by mitigation proposed by the applicant or the application must be denied.

Conceptually, pumping from the proposed point of withdrawal will reduce groundwater discharge to Colony Creek and Samish Bay. Groundwater that naturally discharges to Colony Creek is closed to future consumptive appropriation under WAC 173-501-040, whereas groundwater that naturally discharges to Samish Bay is currently open to future consumptive appropriation (Surface Water Source Limitation list reviewed).

When considering flow augmentation for mitigation it is essential that the impacts of pumping on Colony Creek for both the municipal and mitigation portions of the withdrawal can be overcome by the water that is being added into the creek. In the proposal dated January 16, 2012, presented by Chuck Lindsay (AESI) on behalf of Pat Stephens, the applicant has offered to discharge a continuous flow of 7 gpm from the proposed point of withdrawal into a perennial tributary of Colony Creek upstream of the probable impacted reach. Seven gpm is equal to the annual volume proposed for municipal use spread out over the entire year.

On January 31, 2012, AESI provided an email that stated that the percent impact due to pumping of the well was approximately 20 percent Colony Creek and 80 percent Samish Bay. This percentage was estimated based on the incision of Colony Creek into the advance outwash aquifer to the southwest of the well location. Since the estimated impact on Colony Creek is 20 percent, there is a calculated year round increase in flow downstream of the potential impact area of 4.2 gpm (Table 7).

Table 7 – Mitigation Plan Water Balance

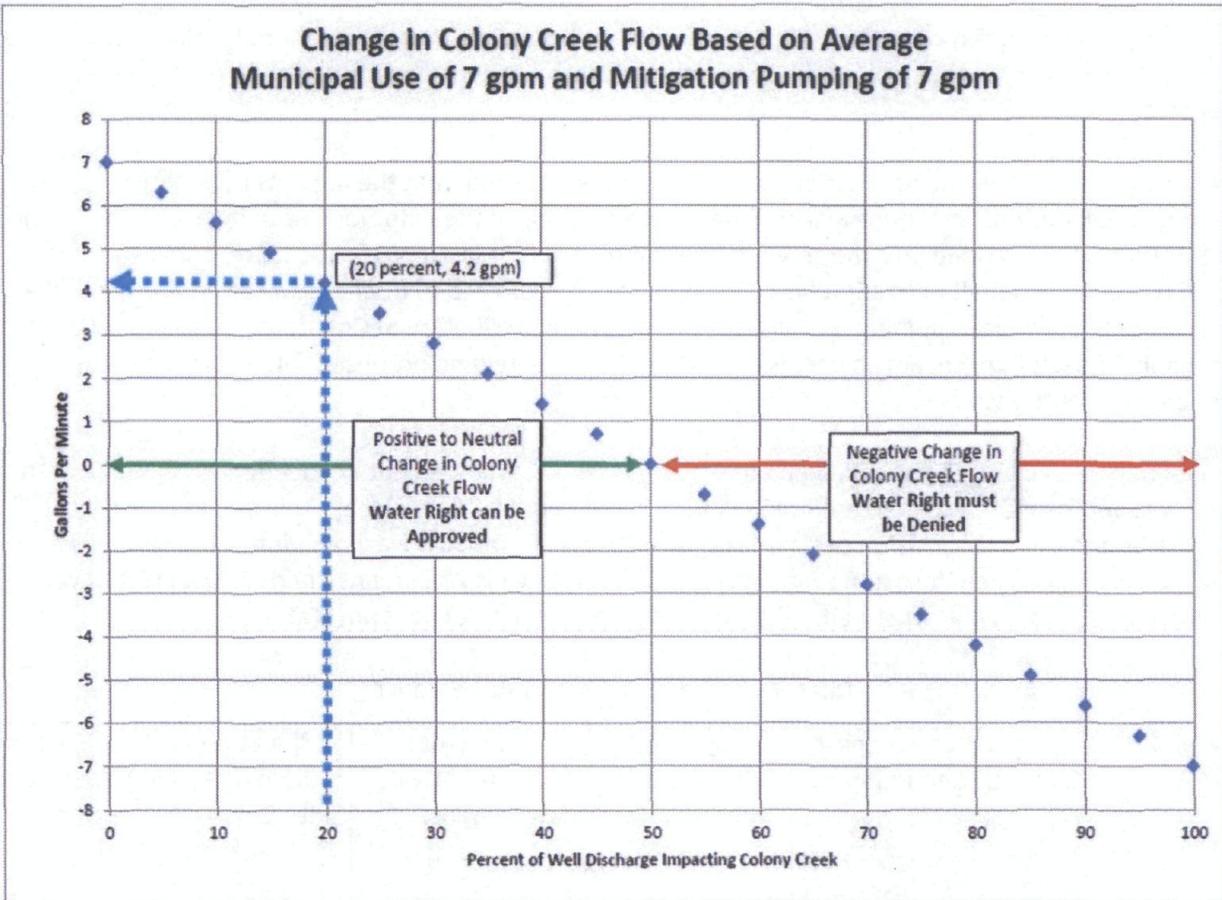
Water Body	Percent Impact Due to Pumping	Municipal Withdrawal Impact (gpm)	Mitigation Withdrawal Impact (gpm)	Mitigation Discharge into Colony Creek (gpm)	Change in Discharge gpm
Colony Creek	20	-1.4	-1.4	+7.0	+4.2
Samish Bay*	80	-5.6	-5.6	0	-11.2
Total	100	-7.0	-7.0	+7.0	-7.0

*This is groundwater discharge to the marine water of Samish Bay without first discharging into Colony Creek.

In reviewing Figure 1, it is shown that under the current mitigation plan, as long as the impact due to pumping on Colony Creek is less than or equal to 50 percent, the mitigation provided will enhance or maintain flows in Colony Creek.

The mitigation plan is conservative toward protecting flows in Colony Creek. Even if the estimate of the percent impact to Colony Creek is too low, the impact could more than double, and the flow in the creek would still not be reduced over present conditions.

Figure 1 – Graphic Display of Mitigation Plan Effectiveness Measured Downstream of Potential Impact Area



Beneficial Use

The use of water for municipal water supply purposes is defined in statute as a beneficial use (RCW 90.03.015(4)).

The use of water for mitigation (preservation of environmental and aesthetic values) is defined in statute as a beneficial use (RCW 90.54.020(1)).

Public Interest Considerations

Consideration of Protests and Comments

No protests were received during the official 30 day protest period following the second date of publication (February 21, 2011). However, comment letters were received from the following:

- June Kite, Friends of Skagit County (Received June 14, 2011)
- Janet McKinney (Received August 29, 2011)
- Reid Kerr (Received September 21, 2011)
- Mike Stevens (Received August 12, 2011)
- Sarai Stevens (Received August 12, 2011)

June Kite

Comment # 1: Ms. Kite commented that the application is for 50 gpm and that this calculates to 72,000 gpd and is much more than needed for the 9-lot CaRD subdivision which, according to Ms. Kite, is the Plat that Skagit County Planning is currently processing.

Response # 1: Water rights are issued with two quantities of water. The instantaneous quantity (Qi) is measured in gpm and is the maximum withdrawal rate allowed at any instant. In this case, the applicant applied for 50 gpm. If the water right is issued, the Qi allowed will depend on several factors, including the number of homes to be supplied, the quantity of water needed to satisfy the peak instantaneous demands of the proposed system, and the rate at which water can be withdrawn from the source well. Both Ecology and the WDOH have standard values that provide guidance on this number. The second quantity of water is the annual quantity expressed in acre-feet. This is the total volume of water that can be withdrawn over the course of a year and this number is determined by evaluating the actual project demand of the system based on water requirements of other similar systems in similar areas.

In this case, the applicant has requested an allocation of 400 gpd per connection. While 400 gpd per connection is likely higher than will ultimately be used on an annual average basis, it is reasonable and will be used to determine the annual volume allocated for municipal water supply purposes.

A water duty of 400 gpd per connection equates to a maximum daily withdrawal of 10,000 gpd. This, in turn, equates to a total annual volume of 0.45 acre-feet per connection per year or a total of 11.25 acre-feet per year for the anticipated full build-out of 25 connections.

Comment # 2: Ms. Kite expressed concern with the lack of definitive information concerning the source or destination of the ground waters that are subject to this application.

Response # 2: The source of the groundwater will be from a well located in the SW ¼ of the SE ¼ of Section 23, Township 36N, Range 3E near the point where the access road intersects with Wood Road. The water will be pumped up hill to the development site and stored in a reservoir that will be used to satisfy peak system demands, provide adequate pressure, and provide the capacity for adequate fire flow for the development. The project will include an on-site septic system for each of the individual dwelling units. Site evaluations have been approved by Skagit County for all but lots 7 and 8 and all lots will be required by the County to demonstrate approved soil site evaluations prior to final plat approval.

Comment # 3: Ms. Kite expressed a concern about the potential impact on Barrel Springs Creek and Colony Creek, both of which are fish bearing streams.

Response # 3: A preliminary response from WDFW indicates that Colony Creek is utilized by Fall Chinook, Coho, and Fall Chum with Coho rearing and Fall Chum spawning in the lower reaches with cutthroat trout throughout the entire length. In addition, WAC 173-501-040 lists Colony Creek as being closed year round to further consumptive appropriation.

An administrative closure means that there is no water legally available for further consumptive appropriation from Colony Creek. While this water right application is for groundwater, it appears that there is hydraulic continuity between the groundwater source and Colony Creek once the creek incises into the advance outwash aquifer (AESI, 2011). Therefore, any impacts to Colony Creek that would result in reduced stream flow, no matter how small, must be offset by mitigation proposed by the applicant or the application must be denied.

On February 7, 2012, Steve Boessow, Water Rights Biologist, at WDFW, submitted a comment letter indicating acceptance of the mitigation plan and requesting the water right be provisioned on obtaining an HPA permit to construct the mitigation discharge structure near/in the creek.

Ms. Kite also expressed concerns about the impact of the proposed water withdrawal on Barrel Springs Creek. After checking with the Upper Skagit Tribe, Ecology confirmed that no creek by that name was located. However, we believe Ms. Kite is referring to a branch of Colony Creek. These small streams are separated from the West Branch of Colony Creek by a divide and no impact on these small streams is anticipated.

Comment # 4: Ms. Kite recommends Ecology put a hold on rural well development for the Samish/Blanchard watershed as they have done for the Lower Skagit Basin and that Skagit County "does not want urban type low density development in our Rural and Resource lands."

Response # 4: Given the results of the pumping tests conducted for the source well for this project, the minimal drawdown of the pumping well, and the absence of effects at the other well which is about 285 feet away, it is clear that water is available at this location in the quantities being requested. While there may be areas in the Samish/Blanchard watershed where rural well development could result in water resource-related issues, it is clear that the withdrawal of water under this water right, if approved, will not adversely impact other water users with the exception of the impacts on Colony Creek for which mitigation will be required.

The second portion of the comment related to the type of land use that Skagit County envisions for this watershed. This is a land use issue that is outside the purview of a water rights report of examination. While it could be argued that land use issues could be addressed under the public welfare question, the reality is that, in this case, Skagit County's Hearing Examiner has already addressed many of the land use issues associated with this proposed project and nothing in his decision would support the decision that this application is detrimental to the public welfare. In fact, in that decision, the Hearing Examiner said

"After review of the entire record, the Examiner finds that the proposed plat, as conditioned, will make "adequate provisions" for:

- a. Public health, safety and general welfare -- Requirements for potable water and sewage disposal will be met. Adequate measures will be provided for impacts on public facilities and on the environment."

Janet McKinney

Comment # 1: Ms. McKinney expressed concern that the development seems to consist of two parts and that they should be considered as one development because of the water rights that would be required for each.

Response #1: The preliminary plat approval by Skagit County was for the Blanchard Knob project and, because of the limited size of that development, was consistent with the use of a well that is exempt from the water right permitting process. The applicant has stated that, if the water right is approved, the development will be enlarged to provide water to a total of 25 connections which will create a Group A water system to be administered by the WDOH Drinking Water Program. This report of examination addresses that water right application.

Comment # 2: Ms. McKinney suggested requiring the developers to pay the costs of road improvements instead of taking the money out of the general fund.

Response # 2: This is a comment best directed to Skagit County Planning and Development Services. The creation of transportation infrastructure and the methods of financing such infrastructure are beyond the purview of this water rights investigation.

Reid Kerr

Comment # 1: Mr. Kerr is concerned that the development, if approved, may change the character of his community and is concerned about the hydrological and ecological impacts associated with this development.

Response # 1: The hydrologic impacts associated with the proposed water withdrawal are addressed in this ROE. The well utilized by Mr. Kerr is located approximately 0.25 miles from the proposed point of withdrawal. At this distance there will be no measureable impact to the water level in the well utilized by Mr. Kerr.

Comment # 2: Mr. Kerr is concerned with the lack of data on the effects on the aquifer and the nearby salmon resource in Colony Creek.

Response # 2: The project proponent has retained the services of a professional hydrogeologist to evaluate the impacts of pumping of the aquifer on the aquifer and on nearby surface water sources. Because Colony Creek is administratively closed to further consumptive water rights, any impacts will need to be mitigated as a condition of approval of a water right. The required mitigation for this project is discussed elsewhere in this ROE.

Comment # 3: Mr. Kerr had concerns with the potential for piecemeal development and the need to address the two subdivision projects as a single project.

Response # 3: See response to Janet McKinney's Comment # 1, above.

Comment # 4: Mr. Kerr is concerned with potential runoff impacts to Colony and Whitehall Creeks and Samish Bay and the need to be consistent with the Governor's pledge to turnaround the failed clean-up efforts by September 2012.

Response # 4: Again, the potential runoff is outside the scope and purview of this water rights examination unless it could be shown that the runoff is such that it would be clearly detrimental to the public welfare. Based on the assessments by Skagit County, there is no evidence that such detrimental effects are anticipated from this project.

Comment # 5: Mr. Kerr is also concerned with how this project respects or bypasses the larger goals of the Growth Management Act, the Cascades to Chuckanut Conservation Strategy, and Skagit County's Alger Community Plan (which also discusses a proposed Critical Areas Ordinance which protects Colony Creek.

Mr. Kerr encourages Ecology "along with the Skagit Co. Planning Department and County Commissioners to really contemplate if this projects maintains" "continuity of ecological functions characteristic of the property" "preservation of rural character," resulting in "reduced impervious surface area and lower costs of development and maintenance" (as stated in Skagit County Code 14.18.300 CaRDs) "an alternative division of land."

Response # 5: This is a land-use related question/comment that is outside the purview of this water rights report of examination.

Sarai Stevens

Comment # 1: Ms. Stevens has concerns that Skagit County has not done a study on the aquifer that this Class B community water system would draw from. This is an area of limited water resources and it is unknown how this added demand would effect (sic) the surrounding private wells that all draw from the same aquifer.

Response # 1: See the discussion of hydrogeology in this ROE. Based on pumping tests and water level monitoring in the two wells at the foot of this property, there is no indication that any nearby wells will be adversely impacted by the proposed pumping of water for this project.

Comment # 2: Ms. Stevens is concerned that because no study has been done it is also unknown how this added demand on the aquifer and water table would affect the surrounding streams, especially Colony Creek that has just started to function again as a salmon spawning stream.

Response # 2: See the discussion of hydrogeology for a discussion of the impacts of this withdrawal on Colony Creek and the mitigation that will be required as a condition of any water rights approval.

Comment # 3: Ms. Stevens is also concerned that the additional run-off from logging, road building, construction and septic systems would run directly off mountain and into Samish Bay, potentially counteractive efforts to clean up Samish Bay.

Response # 3: This is outside the purview of the water right ROE but is being addressed by Skagit County and is described in the Hearing Examiner's Notice of Decision Before the Skagit County Hearing Examiner, dated September 26, 2011.

Comment # 4: Ms. Stevens mentioned that Wood Road would have to be brought up to rural standards, implying that road widening and paving would eventually ensue.

Response # 4: This is a local land use issue that is outside the purview of this water rights ROE.

Comment # 5: An adjacent 80-acre parcel owned by BS 80 LLC has already been approved for CaRD process and is currently working towards 72,000 gpd in water rights. If water rights are granted, eight houses and individual septic systems will be constructed. In the end, a total of 17 houses would be built in a neighborhood that was once mostly quite (sic) forestland accessed by a one-lane dirt road. If the Blanchard Nob (sic) development is approved it would drastically alter the character of this Rural Reserve area.

Response # 5: According to Skagit Surveyors and Engineers (surveyors for Pat Stephens, the water right applicant), "in the event the water right is approved, the four tax parcels owned by PS 103 LLC and BS 80 LLC (P488084, P48085, P48086, and P48087) and any development associated with them, would be served by the water right." PS 103 LLC currently has a preliminary plat approval that is proposed for a Group B water system but the entire project will be served by a Group A water system if the water right is approved. For the record, the proposal is for 25 water connections and a total of 27 lots. In PS 103 LLC, the two remaining lots will be open space-protected area lots accounting for approximately 88 percent of the total land area. This includes Ronald Roosma's property, which was added after the original application was submitted.

Mike Stevens

Comment # 1: The development is asking for water rights to use 72,000 gallons of water a day to obtain water for a 9-house development on 90 acres; currently, it is designated resource land. The project is applying for a CaRD (sic) to divide the acreage into 10 lots that get their water from one shared source, described as a Class B community water system.

Response # 1: The 72,000 gallons of water per day is incorrect. The well pumps at about 50 gpm but that amount of water will not be withdrawn continuously. The quantity of water requested for the municipal water supply of 25 connections is actually 10,000 gpd or 11.25 acre-feet of water per year. In addition, an equal amount of water will be pumped from the well and introduced into Colony Creek for mitigation. The remainder of this comment is a land use issue more appropriately addressed by Skagit County as it is outside the purview of this report of examination.

Comment # 2: Mr. Stevens wondered why the county would allow expanded development into rural resource land when less than 5 miles away is an area designated as a long-term goal for higher population density?

Response # 2: This is a land-use related question and is outside the purview of this report of examination.

Comment # 3: How will using this much water affect the community of Wood Road and Colony Mountain that already utilize this source? Will people with private wells that are affected have a means to ensure that their water rights are protected?

Response # 3: See the discussion of hydrogeology and physical and legal water availability in this Report of Examination. Based on observations of water level both in the absence of pumping and during pumping, no adverse impacts on existing water users are anticipated and any impacts on surface waters in the vicinity will be fully mitigated as a condition of approval.

Comment # 4: Planning notes indicate that Wood Road will have to be brought up to rural standards: does this mean widening and paving the road?

Response # 4: This is a question best addressed to Skagit County and is outside the purview of this ROE.

Comment # 5: The topography of the development indicates very steep hills, which logically means that all the run-off from this project will wind up in either Colony or Whitehall Creeks and flow down into Samish Bay; how will this affect the efforts of Skagit County to keep the bay clean and the oyster industry afloat?

Response # 5: Although the land is steep, this comment seems to assume that the land is also bare and that runoff will flow directly into the creeks and into the Bay. Skagit County has addressed the environmental impacts of runoff from construction, from the proposed road, and from the proposed septic tank drainfields. Again, this question is more appropriately directed to Skagit County Planning and Development Services and/or the Skagit County Health Department and is outside the purview of this ROE.

Comment # 6: It appears that this project has gone forth with road building and tree clearing before water rights are established. A land and water needs analysis would clarify much of the impact of this project. Finally, a moratorium on further development seems necessary until the impact is ascertained and it can be determined if this kind of project aligns with the long-term goals of Skagit County.

Response # 6: The PS 103 LLC portion of the project applied for and was granted preliminary plat approval by Skagit County. This application required proof of an adequate water supply. This was provided by the existence of an existing well which was shown to be capable of providing water in the amount of 5,000 gpd for a smaller scale development (a Group B water system). Any project development that may have occurred is not a water rights issue but is an issue for Skagit County Planning and Development Services. Again, the development moratorium is an issue best directed to Skagit County.

The comment letters raise a series of questions, some of which are related to water resources and the decisions that need to be made on the water right application and some of which are related to land use issues which are best addressed by Skagit County. While there may still be outstanding land use issues pending resolution, many of the land use issues raised by the letter writers have been addressed by the Skagit County Hearing Examiner.

In terms of water resources issues, this ROE includes direct responses to those questions and also references the more detailed discussions of issues that were raised such as the degree of hydraulic continuity between the proposed wells and Colony Creek, the anticipated impact on other wells in the same aquifer, and the need to protect the instream values of Colony Creek.

RECOMMENDATIONS

The four criteria on which a water rights decision must be made are as follows:

- Is the proposed use of water a beneficial use of water?
- Is water available; both physically and legally?
- Can the water be put to the proposed use without impairing existing rights?
- Is the use of water not detrimental to the public welfare?

If the four questions can be answered in the affirmative, then a water right permit must be issued.

Beneficial Use

Is the proposed use of water a beneficial use of water?

Yes, use of water for municipal water supply purposes and preservation of environmental and aesthetic values (mitigation) are defined by statute as beneficial uses of water.

Availability

Is water physically available?

Yes. The hydrogeologic evaluation of the aquifer indicates a plentiful supply of water at this location.

Is water legally available?

Yes. The only legal impediment to the use of this water is the potential impacts on Colony Creek which is closed to further consumptive appropriations of water. However, the applicant has proposed a mitigation plan that will fully mitigate the anticipated impacts on the instream resources of Colony Creek.

Potential for Impairment

Can the appropriation be made without causing impairment of existing senior water rights?

Yes. Pumping from this well will not impair the ability for neighboring well owners or other water right holders to exercise their water rights.

Public Welfare

Is the use of water not detrimental to the public welfare?

Yes. The use of water is not detrimental to the public welfare. The Skagit County Hearing Examiner has reviewed the various elements of this project and nothing in the findings of the Hearing Examiner indicates that the use of this water would be detrimental to the public welfare.

Based on the above investigation and conclusions, I recommend that this request for a water right be approved as a municipal water supply purpose water right in the amounts and within the limitations listed below and subject to the provisions listed above.

Purpose of Use and Authorized Quantities

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:

50 gallons per minute

Municipal water supply purposes

- 43 gpm consumptive (additive)
- 11.25 acre-feet per year consumptive (additive)

Colony Creek non-consumptive mitigation purposes

- 7 gpm (additive)
- 11.25 acre-feet per year (additive)

Point of Withdrawal

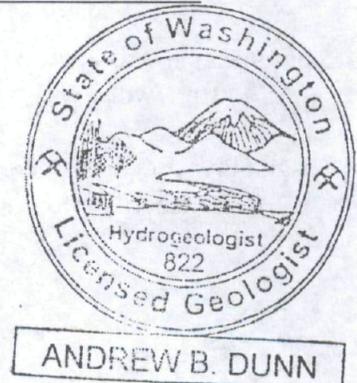
SW¼ SE¼, Section 23, Township 36N, Range 3E .W.M.

Place of Use

As described on Page 2 of this ROE.

Report by: Jim Bucknell 3/30/2012
 Jim Bucknell, RH2 Engineering, Inc. Date

Report by: A. B. Dunn 4/3/2012
 Andrew B. Dunn, LG, LHG, RH2 Engineering, Inc. Date



Stamp

Reviewed by:

Buck Smith
J. R. "Buck" Smith, LG, LHG, Water Resources Program

4/5/12
Date



J. R. "BUCK" SMITH

Stamp

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.

Selected References

Associated Earth Sciences, Inc. (AESI), January 31, 2012, E-mail RE: Blanchard Knob Mitigation Plan.

AESI, 2012, Technical Memorandum Subject: Water Right Application G1-28669 – Mitigation Plan, Prepared for Pat Stephens, January 16, 2012.

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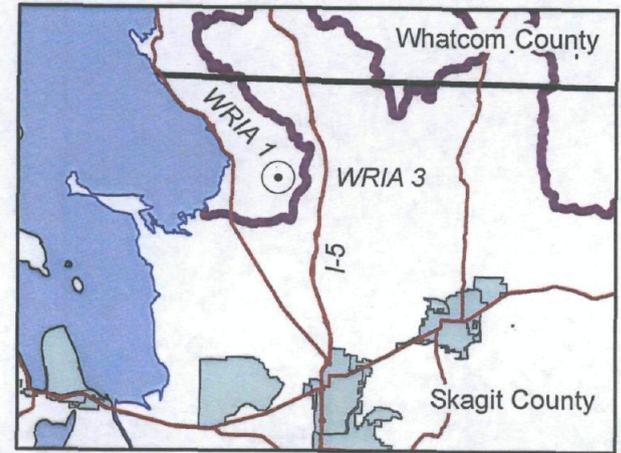
AESI, 2009, Hydrogeologic Assessment And Well Testing Services – Magnus Long Plat: Prepared for BS80 LLC, January 20, 2009.

GeoEngineers, November 7, 2001, Lower and Upper Skagit Watershed Plan, Samish River Sub-Basin, DRAFT Ground Water Hydrology Evaluation. Prepared for Skagit Council of Governments.

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<http://wdfw.wa.gov/mapping/salmonscape/index.html>

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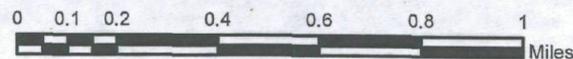
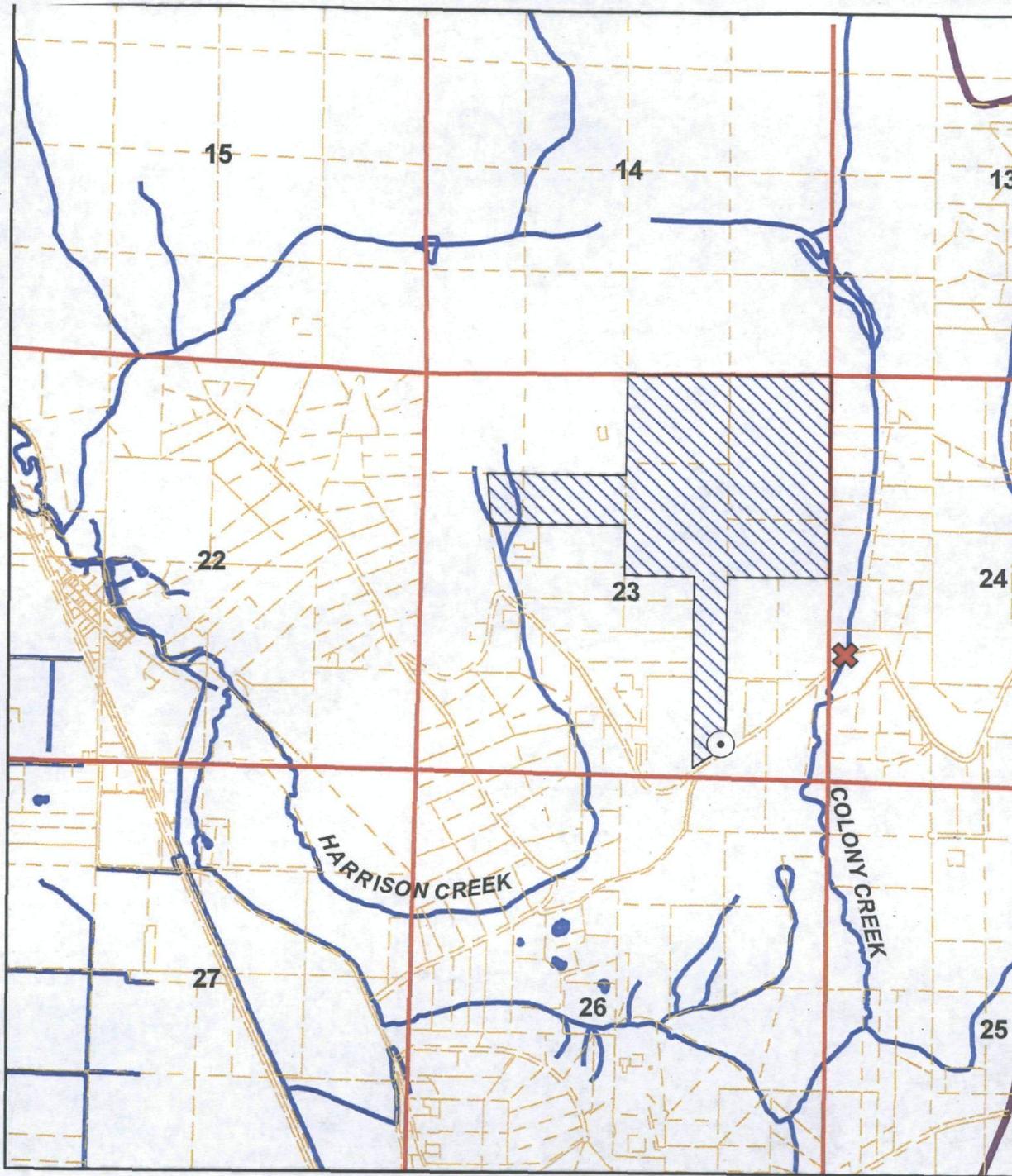
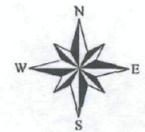
Pat Stephens
 Water Right Number G1-28669
 Section 23 Township 36N Range 03E W.M.
 WRIA 1- Skagit County



Site Map

Legend

- ⊙ Point of Withdrawal
- ✕ Mitigation Discharge Point
- ▨ Place of Use
- Sections
- - - Parcels
- County
- ▭ WRIA Boundary
- Streams



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.'

