File No. G1-28609
WAC Doc ID: 4594900

DEPARTMENT OF ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION
G1-28609

PRIORITY DATE	APPLICATION NUMBER
February 20, 2009	G1-28609

MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Concrete Nor'West PO Box 280 Mount Vernon, WA 98273	Taylor Road Surface Mine located near 303 East Sleeper Road, Oak Harbor, WA, 98277

Quantity Authorized for Withdrawal or Diversion

DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
200	GPM	140

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Industrial/Commercial and Domestic	200		GPM	140		Continuous

Source Location

WATERBODY	TRIBUTARY TO	COUNTY	WATER RESOURCE INVENTORY AREA
Well		Island	06

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well (Well Tag # APF969)	R23318-165-4650	33N	02E	18	SE	48.345075N	-122.593928W

Datum: WGS84

Place of Use (See Map, Attachment 1)

PARCEL

R23318-165-4650, R23318-071-3790, and R23318-203-3340

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

The south half of the northeast quarter of the southeast quarter of Section 18, Township 33 North, Range 2 East of the Willamette Meridian, except those portions conveyed to Island County. (R23318-165-4650)

The east half of the east half of the southwest quarter of the southeast quarter of Section 18, Township 33 North, Range 2 East of the Willamette Meridian, except those portions conveyed to Island County for road purposes. (R23318-071-3790)

The northwest quarter of the southeast quarter of Section 18, Township 33 North, Range 2 East of the Willamette Meridian. (R23318-203-3340)

Proposed Works

The system will consist of a well and water distribution system to the ready-mix concrete batch plant, gravel washing and crushing facilities, and maintenance and office buildings.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	December 31, 2023	December 31, 2028

Measurement of Water Use

How often must water use be measured?	Weekly
How often must static water levels be measured?	Monthly
How often must water use and static water level data be reported to Ecology?	Annually (Jan 31, or when requested by Ecology)
What volume should be reported?	Total Annual Volume
What rate should be reported?	Maximum Peak Rate of Withdrawal (gpm)

Provisions

Water Use Efficiency

In order to facilitate the most efficient use of water and minimize the amount of water that needs to be withdrawn from the aquifer to compensate for losses during production, the permanent wash water recovery and recycling ponds shall be lined in such a manner as to avoid excessive amounts of leakage from the ponds into the subsurface. This work must be done before the project will be considered complete under the development schedule and before a certificate will be issued.

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.

The applicant should notify Ecology if static water levels decline. Measurement frequencies may be increased at the request of Ecology if static water levels in the Concrete Nor'West well or neighboring wells are declining. Further provisions may be added if impairment of neighboring water rights appears imminent.

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. G1-28609, 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 9 day of September 2013.

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

Investigator's Report
Application for Water Right – Concrete Nor'West
Water Right Control Number: G1-28609
Investigators: Mr. Jim Bucknell and Mr. Andrew Dunn, RH2 Engineering, Inc.

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number G1-28609.

Cost Reimbursement

This application is being processed under a cost reimbursement agreement between the applicant and the Washington State Department of Ecology (Ecology). This report has been prepared by RH2 Engineering, Inc., (RH2) under Ecology Cost-Reimbursement Agreement No. C1000190.

Project Description

The applicant intends to withdraw groundwater from a well on its property for industrial and commercial and domestic uses. The system will consist of a well and water distribution system to the ready-mix concrete batch plant, gravel washing and crushing facilities, and maintenance and office buildings. Other permits and approvals already obtained for this project include Sand and Gravel General Permit No. WAG 507218 (Ecology, 2012), Surface Mine Reclamation Permit No. 70-013182 (Washington State Department of Natural Resources, 2012), and final State Environmental Policy Act (SEPA) threshold determination (Island County Planning and Community Development, 2011).

Table 1
Summary of Application No. G1-28609

Attributes	*Proposed*
Applicant	Concrete Nor'West
Application Received	February 20, 2009
Instantaneous Quantity	200 gpm
Source	Well (Well Tag # APF969)
Point of Withdrawal	SE ¼, Section 18, Township 33 North, Range 2 East, W.M.
Purpose of Use	Industrial/Commercial and Domestic
Period of Use	Continuous
Place of Use	The south half of the northeast quarter of the southeast quarter of Section 18, Township 33 North, Range 2 East of the Willamette Meridian, except those portions conveyed to Island County. (R23318-165-4650) The east half of the east half of the southwest quarter of the southeast quarter in Section 18, Township 33

	North, Range 2 East of the Willamette Meridian, except those portions conveyed to Island County for road purposes. (Parcel R23318-071-3790) The northwest quarter of the southeast quarter in Section 18, Township 33 North, Range 2 East of the Willamette Meridian. (Parcel R23318-203-3340)

Legal Requirements for Application Processing
The following requirements must be met prior to processing a water right application:

- **Public Notice**

Notice of this application was published in the Whidbey News-Times Record on March 25, 2009, and April 1, 2009. No protests were received.

- **Consultation with the Department of Fish and Wildlife**

Email notifications of this water right application requesting comments were sent to Mr. Steven Boessow, Water Rights Biologist for the Washington State Department of Fish and Wildlife on May 17, 2013, June 17, 2013, and July 2, 2013. No response was received prior to completion of this report of examination.

- **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 gallons per minute;
(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.

Obtaining the requested water right is part of a larger proposal related to the mine that is subject to SEPA for reasons not directly related to the proposed water use. In the SEPA checklist, Concrete Nor'West appropriately identified that it would be withdrawing water for this project and would need to get approval of Ecology to do this. Miles Sand & Gravel Co. Inc. (parent company to Concrete Nor'West) received a Mitigated Determination of Non-significance (MDNS) from Island County Planning & Community Development on March 30, 2011. Therefore, SEPA has been complied with for this water right request.

INVESTIGATION

Site Visit/Site Description

On May 22, 2013, Mr. Jim Bucknell and Mr. Andrew Dunn from RH2 met at the Taylor Road site with Mr. Dan Cox from Concrete Nor'West. We verified the well location (aerial photo), diameter (12 inches), and Well Tag Number (APF969). Casing stickup was measured as 2.25 feet above ground surface to the top of the access port in the welded cap. Depth to water measured from the top of the access port was 169.90 feet. Subtracting for the casing stickup, the depth to groundwater below ground surface was 167.65 feet. The static water level measured prior to the pumping test on July 25, 2012, was approximately 0.25 feet lower than during the site visit (Robinson Noble, 2012). This suggests that there is likely some minor (<1 foot) seasonal fluctuation in the groundwater level in the aquifer.

After measuring the well, Mr. Cox described the ownership history and past mining activities within the proposed place of use. Historically, the existing pit located near the well was mined by Concrete Nor'West, while the pit on the 40-acre parcel was owned and mined by a Mr. Ronald Christensen, before sale of the property to Concrete Nor'West. We drove to the 40-acre parcel using an access road off of East Sleeper Road. Along this access road there was an historic scale house for recording the weight of product leaving the site.

While near the well site, we walked a short distance and viewed the uphill extent of a ravine that slopes to the north. The ravine was dry at this location. This ravine is shown to contain a stream in the Washington State Department of Natural Resources Washington State Watercourse (WC) Hydrography GIS layer, while the United States Geological Survey (USGS) 7.5 minute topographic map of the area (Crescent Harbor, Wash. 1977) does not identify a stream in this ravine. Farther down where this ravine crosses East Frostad Road, flow estimated to be less than 100 gpm was observed. In addition to the flow in the channel, many seeps and springs were observed in the road cut along the uphill (south) side of the road. It is assumed that the source of the water observed in the lower reach of the ravine is groundwater discharge from the same aquifer tapped by the Concrete Nor'West well. The small stream appeared to flow north towards Lake Dugualla, however, we did not follow the full path of the stream.

Mr. Cox explained that Concrete Nor'West plans to mine sand and gravel on the eastern portion of the property near North Taylor Road, which is in the vicinity of the well site, to create a level area for siting the production facilities. This area will be lower than the surrounding topography to reduce the potential for noise and visual impacts to neighboring property owners. Once the production facilities are constructed and in operation, it is anticipated that all material excavated from the mine will be hauled by truck from the excavation site to the processing facility. Mr. Cox confirmed that the well will be used to initially charge the washing plant system, which will include settling ponds for reuse of water, but after that will be used to compensate for water that is lost due to evaporation, transportation off site with product, use for dust control, or concrete production. The possibility that the excavated wash plant ponds will be lined to conserve water and reduce infiltration loss was discussed. Domestic water use will be limited to typical uses by workers utilizing the site.

Other Rights Appurtenant to the Place of Use
There are no existing water rights appurtenant to the proposed place of use.

Hydrogeology
Regional
The geology and hydrogeology of Island County has been investigated in many studies due to the importance of groundwater as the primary source of supply for most of the county's residents. Earlier studies include Anderson (1968), Easterbrook (1968), Sapik and others (1988), and Dragovich and others (2005). With respect to hydrogeology, the terminology utilized by Sapik and others (1988), which was to focus on the hydrogeologic properties of the units as opposed to their age relationship, has been adopted by others, including Robinson Noble (2012, 2013). The groundwater flow system on Whidbey Island is best described as a series of discontinuous water-bearing zones (sand and gravel aquifers) surrounded by zones of lower-permeable glacial sediments (silt, clay, and till aquitards). All recharge to the system originates as rain falling on the surface of the island. Groundwater generally flows downward in the central portions of the island then outward through the aquifers toward the coast and offshore. Groundwater is discharged as springs above sea level or to marine waters at locations where the aquifer intersects a cliff, beach face, or ocean bottom.

The series of aquifers on Whidbey Island is complex, resulting from the deposition and erosion that occurred during and between several glaciations. Although the USGS (Sapik and others, 1988) has designated five aquifer zones, termed A (oldest) through E (youngest), these zones are laterally discontinuous, vary in depth and thickness, and may be interconnected in various locations. As a result, the effect of withdrawing groundwater from any particular depth and location could have widely variable impacts on nearby wells.

The Taylor Road Mine site is located on the northern margin of an upland on northern Whidbey Island, just south of Clover Valley. Both Sapik and others (1988) and Robinson Noble (2012, 2013) show groundwater contours in the area generally flowing radially outward from the center of the upland. For the Concrete Nor'West project, this suggests groundwater flow from south to north toward the lowland of Clover Valley. Numerous seeps, springs, and spring-fed streams were observed during the site visit to the north of the mine property along Frostad Road near the valley floor. The presence of these features is consistent with the south to north flow of groundwater.

Well Drilling
Concrete Nor'West drilled and tested a well under a preliminary permit issued by Ecology. The original intent was to complete the well in a deep aquifer below sea level. However, after drilling to a depth of 605 feet (approximately 345 feet below sea level) the only aquifer encountered below sea level was a poor-producing aquifer with brackish water. As a result, the decision was made to complete the well in an aquifer above sea level. During drilling, two water-bearing layers above sea level were encountered and the well was completed in the deeper of these two layers. The aquifer zone in which the well is completed has been interpreted to be Aquifer Zone D by Robinson Noble (2013). For consistency with Robinson Noble (2013), the upper aquifer will be referred to as Aquifer Zone E and the lower aquifer will be referred to as Aquifer Zone D.

Table 2
Well Construction Data

Attributes	*Value*
Well Tag ID	APF969
Approximate Ground Surface Elevation (feet)	260
Depth of Completed Well (feet)	235
Casing Diameter (inches)	12
Screened Interval Depth Below Ground Surface (feet)	210 to 235
Approximate Screened Interval Elevation Above Mean Sea Level (feet)	50 to 25
Static Depth to Water From Ground Surface (feet)	167
Approximate Static Water Level Elevation Above Mean Sea Level (feet)	93

Aquifer Testing

Upon completion of the well in Aquifer Zone D, a 24-hour aquifer test was performed. Unfortunately, the original pumping rate (212 gpm) was interpreted to be too high to be maintained over the duration of the test given the depth of the test pump and the rate was reduced after 210 minutes (3.5 hours) of pumping to 156 gpm, which was maintained for the remainder of the test. For the test, two wells, Sleeper Acres (Island County ID 4WR) and Frank Shughart (Island County ID 4JT), were monitored as observation wells. The Sleeper Acres well is located 1,620 feet southeast of the Concrete Nor'West well, is completed in Aquifer Zone D, and provided good data for measuring the interference drawdown during the first portion of the pumping test. Aquifer properties determined through the early-time measurements made in the Sleeper Acres observation well during testing include an aquifer transmissivity of 22,387 gallons per day per foot (gpd/ft) and a storage coefficient of 0.00007, which suggests that the aquifer is confined. The Frank Shughart Well is located 2,335 feet south-southwest of the Concrete Nor'West well had no response to pumping even though it would be expected to show a response based on the aquifer properties. This well was later determined to be tapping the overlying Aquifer Zone E.

Site Hydrogeology

Through the watershed planning act, Island County has differentiated 33 groundwater subbasins on the basis of groundwater flow directions (Island County, 2005). The proposed point of withdrawal for the subject application is located in Subbasin 9.

Cross sections were prepared by RH2 to examine the vertical stratigraphy of the area to assist with the interpretation of the aquifer testing results and solidify the groundwork for the impairment analysis. Through this investigation, it was determined that wells in the immediate area of the project tap either the shallower Aquifer Zone E or the deeper Aquifer Zone D. The two aquifer zones are separated by a relatively thin (approximately 10 feet thick) clay to sandy silt aquitard. The proposed point of withdrawal is screened within Aquifer Zone D. From the aquifer test, it appears that Aquifer Zone D is more prolific than Aquifer Zone E and wells completed within it generally have higher specific capacities reported on their well logs than wells completed in Aquifer Zone E. The coarse-grained material forming Aquifer Zone E appears to be more limited in extent and was not observed in some wells.

Specific capacity in neighboring wells as reported on water well logs and determined by bailer tests is typically from 1 to 2 gallons per minute per foot (gpm/ft), while pumping tests of more productive wells in the area can produce a specific capacity of up to approximately 10 gpm/ft.

Seawater Intrusion

The static water level elevation in the proposed point of withdrawal is approximately 93 feet above mean sea level. The base of the aquifer tapped by the Concrete Nor'West well is located approximately 37 feet above mean sea level at the well location and therefore there is no risk of saltwater intrusion into the aquifer.

Interference Drawdown

To explore the anticipated interference drawdown in neighboring wells, well locations were obtained from the Island County Hydrogeologist (received via email on May 20, 2013) for the area within 1 mile of the Concrete Nor'West well. In addition, cross sections were created to help identify which wells were completed in the Aquifer Zone D with the pumping well and, therefore, most at risk from interference drawdown.

The available drawdown in neighboring wells completed in Aquifer Zone D, with available drawdown calculated as the height of water during static conditions above the top of the screen, is from 36 to 15 feet. Pumping rate and specific capacity information was either obtained or estimated for each well to determine how much drawdown would be anticipated in each well due to its own operation. The calculated interference drawdown based on pumping the Concrete Nor'West well was determined using the Theis equation. Based on the information available and assuming that the aquifer properties identified during the 24-hour test are representative over the long-term, under no pumping scenario will any of the neighboring wells in Aquifer Zone D be drawn down below the top of the screen.

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

The Water Resources Act of 1971 (RCW 90.54.020(1) defines beneficial uses of water. The application requests water for industrial/commercial and domestic use. Industrial, commercial, and domestic are all explicitly listed beneficial uses under RCW 90.54.020(1); therefore, the proposed use of water is a beneficial use.

Concrete Nor'West is requesting 200 gpm, which based on aquifer properties and well construction is a reasonable rate to be pumped from this well. Annual water needs calculated under this water right as provided by Concrete Nor'West are shown in Table 3.

Table 3
Anticipated Water Use

Category	Calculation	Volume (gallons)	Volume (acre-feet)
Gravel Wash Plant Make-up Water	Determined by Concrete Nor'West based on prior experience with similar-sized facilities.	38,960,990	119.57
Concrete Production	150 cubic yards per day requiring 23 gallons per cubic yard; 5 days per week; 52 weeks per year.	897,000	2.75
Concrete Plant Main Mixer Barrel Wash Out	900 gallons per day; 5 days per week; 52 weeks per year.	234,000	0.72
Concrete Truck Wash Out	5,571 7-cubic-yard truck loads per year; 500 gallons to clean each truck.	2,785,500	8.55
Dust Suppression	Up to 5 fillings of 4,000-gallon water truck during dry conditions; 5 days per week; 26 weeks per year.	2,600,000	7.98
At Job Site Load Adjustment Water	5,571 truck trips per year; tank holds 100 gallons; trucks use 50 percent of the water 20 percent of the time.	55,710	0.17
Domestic for Employees	22 employees working on site requiring 15 gallons per day; 5 days per week; 52 weeks per year.	85,800	0.26
	Total	**45,619,000**	**140**

Concrete Nor'west based its request of 140 acre-feet per year on prior experience with similar-sized facilities. It will design its facility based on the limitations of the water right granted and acknowledge that a certificate will only be issued for the rate and volume of water put to beneficial use, which could be less than the quantities granted on the permit.

RH2 has no contradictory data or personal knowledge to suggest that the requested 140 acre-feet per year is excessive for the proposed industrial/commercial and domestic uses.

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; and
- 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 performed on the proposed point of withdrawal showed that the aquifer could be pumped at the requested 200 gpm as long as the pump intake is set at or below the top of the screen.

Legal Availability

To determine whether water to be 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 – which 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 a 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.

No instream resources protection program has been adopted for Water Resource Inventory Area (WRIA) 06 (Island County) under the authority of WAC 173-500, so there are no streams or lakes administratively closed by rule.

Within the same groundwater subbasin, there is one surface water flow limitation as recorded in the Surface Water Source Limitation (SWSL) list. The October 24, 1952, letter from the Washington State Department of Fisheries to the Department of Conservation and Development was in relation to water right application 11345 (later to become SWC 5079). In this letter, there was a recommendation made that one-half of the low flow of the stream be bypassed past the point of diversion at all times. The point of diversion for this water right is located in the SE ¼ SW ¼, Section 22, Township 33 North, Range 2 East W.M. The unnamed stream discharges directly to Port Susan and is located approximately 2.75 miles southeast of the proposed point of diversion. Given the distance between the proposed well and the groundwater flow direction in Subbasin 9, from the center of the island toward the shoreline, the proposed groundwater withdrawal will not reduce the flow in this stream.

Potential for Impairment

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:

- 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.
- 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.
- Interrupt or interfere with the flow of water allocated by rule, water rights, or court decree to instream flows.
- Degrade the water quality of the source to the point that the water is unsuitable for beneficial use by existing users (e.g., via sea water intrusion).

Surface Water Certificate 2003

Groundwater in the aquifer proposed to be tapped by the point of withdrawal generally flows from south to north in the vicinity of the project. Upon reaching the valley, groundwater discharges as springs along the base of the slope near Frostad Road. Surface Water Certificate 2003 was originally issued to J.C. Ducken and authorized diversion of 0.3 cubic feet per second from one of these spring-fed streams for irrigation of 20 acres. Review of aerial photos suggest that only the property located in the flats near Dugualla Lake and west of Dike Road were historically irrigated. Property ownership research revealed that the property is now owned by the Whidbey Camano Land Trust (WCLT) and is being restored under the Dugualla Flats project by that organization. On July 2, 2013, Ms. Patricia Powell, Executive Director of WCLT, was called to discuss WCLT's use of the property and also the water right. Ms. Powell indicated that WCLT's interest in the property is restoring the freshwater wetlands on the site. She indicated that WCLT is not actively irrigating and does not plan on using the surface water source for irrigation of the property in the future. With the information provided by Ms. Powell, no further analysis was performed with respect to determining if the proposed withdrawal would impair this water right.

No instream resources protection program has been adopted for WRIA 06 (Island County) under the authority of WAC 173-500, so there are no streams with minimum instream flows as defined by rule that must be protected.

Pumping from the proposed point of withdrawal will lead to interference drawdown in neighboring wells. However, the calculated level of interference drawdown is not anticipated to interfere with the ability of those existing water rights to be exercised.

Seawater intrusion is not possible because the base of the aquifer being tapped is located approximately 37 feet above mean sea level at the well. Therefore, there is no risk of the withdrawal causing degradation of the water quality in other wells.

Public Welfare

During the course of this investigation, nothing contrary to the public welfare has been identified.

Consideration of Protests and Comments
In response to public notice of this application, the Department of Ecology received no protests regarding this application for groundwater.

CONCLUSIONS

The conclusions based on the above investigation are as follows:

1. The proposed appropriation for industrial/commercial and domestic use is a beneficial use of water;
2. The requested 200 gpm and 140 acre-feet per year is 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 welfare.

RECOMMENDATION

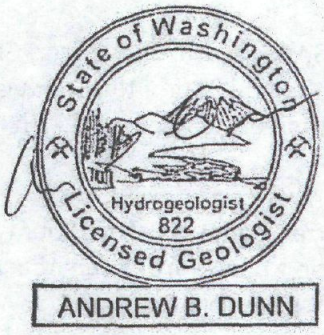
Based on the information presented above, the authors recommend that the request to appropriate groundwater be approved in the amounts described, limited, and provisioned on page 1 through 3 of this report.

Jim Bucknell

September 3, 2013

Report by: _____

Jim Bucknell – RH2 Engineering, Inc. Date

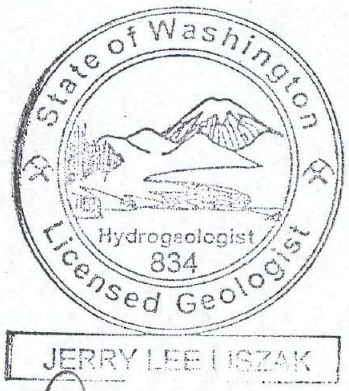


A B Dunn

September 3, 2013

Report by: _____

Andrew B. Dunn, L.G., L.HG. – RH2 Engineering, Inc. Date



Reviewed by: _____ Sept. 3, 2013

Jerry Liszak, L.G., L.HG. - Water Resources Program Date

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

REFERENCES

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