STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PROTESTED REPORT OF EXAMINATION
EXEMPT WELL CONSOLIDATION
Change of: Point of Withdrawal, Place of Use, & Purpose of Use
WRTS File #: CG1-25998@2

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
January 7, 1991		G1-25998@2	

NAME		
Sandy Point Improvement Company		
ADDRESS/STREET	CITY/STATE	ZIP CODE
4460 Decatur Drive	Ferndale, WA	98248

PUBLIC WATERS TO BE APPROPRIATED

SOURCE

Well #5 (Walltine Road well)*

MAXIMUM GALLONS PER MINUTE (gpm)	MAXIMUM ACRE FEET PER YEAR (ac-ft/yr)
Original permit G1-25998 – 230** Added by CG1-25998@1– 0.31 Added by CG1-25998@2 (this change) – 0.31 Now authorized – 230.62**	Original permit G1-25998 – 143*** Added by CG1-25998@1– 0.25 Added by CG1-25998@2 (this change) – 0.25 Now authorized – 143.50***

QUANTITY, TYPE OF USE, PERIOD OF USE

Community domestic supply purposes– continuously

*Well #5 is the primary source of supply for the Sandy Point Improvement Company. The subject permit also allows for the use of well #3 (an 8-inch well) located within Section 4, Township 38N, Range 1E.

**The original maximum rate of instantaneous withdrawal from G1-00740 and G1-25998 together was not to exceed 230 gpm. Now the total of both rights shall not exceed 230.62 gpm, whether operating singly or in concert.

***The original maximum annual volume for both G1-00740 and G1-25998 together was not to exceed 143 acre-feet. Now the total of both rights shall not exceed 143.50 acre-feet per year.

LOCATION OF POINTS OF WITHDRAWAL

APPROXIMATE LOCATION OF WITHDRAWALS

1) Primary source: Well #5 (Walltine Road well) located approximately 1800 feet east and 1700 feet north of the southwest corner of Section 34, Township 39N, Range 1E, W.M.
2) Backup source: Well #3 located approximately 1250 feet east and 130 feet north of the west quarter corner of Section 4, Township 38N, Range 1E, W.M.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
1) NE1/4 SW1/4 2) SW1/4 NW1/4	34 4	39 North 38 North	1 East	1	Whatcom

PARCEL NUMBER	LATITUDE	LONGITUDE	DATUM
1) 390134191185 2) 380104126315	48.81290 48.82407	-122.69927 -122.67528	NAD 1983 HARN

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED
[Attachment 1 shows the location of the authorized place of use and points of withdrawal]

The place of use of this water right is the service area described in the most recent Water System Plan approved by the Washington State Department of Health, as long as the Sandy Point Improvement Company is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

DESCRIPTION OF EXISTING WORKS

Sandy Point Improvement Company (SPIC) currently pumps only from their well #5 located off of Walltine Road. SPIC also has three wells located off of Neptune Circle. These three wells (Nos. 1, 2, & 3) are not currently active due to arsenic problems. SPIC has two storage tanks – one is 200,000 gallons and is located on the southwest corner of Germaine Road and Neptune Circle, the second is 200,000 gallons and is located on the same property as well #5.

This change authorization for an exempt well consolidation will result in the decommissioning of a well owned by Bernard and Nancy George.

DEVELOPMENT SCHEDULE FOR THE @2 CHANGE AUTHORIZATION

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
March 15, 2010	June 15, 2010	September 15, 2010

PROVISIONS

1. Legally enforceable title limitation
Prior to Ecology issuing SPIC a superseding permit, the George's must file with the Whatcom County Auditor a legally enforceable title limitation that prohibits the present and all future owners of the subject parcel from ever constructing another well or wells to serve the parcel previously served by the right established under the groundwater exemption. Failure to abide with this provision will cause cancellation of this authorization.

2. Use of the exempt well shall be discontinued
Upon connection with the SPIC water system, the George's must immediately cease use of their well. This mandatory cessation includes all possible uses of the well (i.e., domestic, stockwatering, irrigation, industrial, etc.). Failure to abide with this provision will cause cancellation of this authorization.

3. George exempt well must be properly decommissioned
Within 12 months from the issuance of this report, the George's and/or SPIC must show compliance with RCW 90.44.105 and RCW 18.104 by submitting to Ecology a decommissioning water well report from a licensed well contractor verifying that the George well has been properly decommissioned. When submitting the report please include a cover letter referencing this Report of Examination. Failure to abide with this provision will cause cancellation of this authorization.

4. Authority to access decommissioned well site
Department of Ecology personnel, upon presentation of proper credentials and at a reasonable time, shall have access to inspect the decommissioned well site for compliance with state law.

5. Existing rights must not be impaired
This authorization to make use of public waters of the state is subject to existing rights, including any rights held by the United States for the benefit of Indians under treaty or otherwise.

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

7. Existing permit provisions
All provisions containing in the July 8, 2004, change authorization and the August 19, 2004, superseding permit will remain in effect and shall be carried forth to the superseding permit resulting from this change authorization.

FINDINGS OF FACT AND ORDER

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

Therefore, I ORDER approval of the recommended change in point of withdrawal, place of use, and purpose of use under Change Application No. CG1-25998@2, subject to existing rights and the provisions listed above.

You have a right to appeal this ORDER. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours.
- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your Notice of Appeal.
- Serve and file your appeal in paper form; electronic copies are not accepted.

1. To file your appeal with the Pollution Control Hearings Board

Mail appeal to:

The Pollution Control Hearings Board
PO Box 40903
Olympia, WA 98504-0903

OR

Deliver your appeal in person to:

The Pollution Control Hearings Board
4224 – 6th Ave SE Rowe Six, Bldg 2
Lacey, WA 98503

2. To serve your appeal on the Department of Ecology

Mail appeal to:

The Department of Ecology
Appeals Coordinator
P.O. Box 47608
Olympia, WA 98504-7608

OR

Deliver your appeal in person to:

The Department of Ecology
Appeals Coordinator
300 Desmond Dr SE
Lacey, WA 98503

3. And send a copy of your appeal to:

Andrew B. Dunn
Department of Ecology
3190 160th Ave SE
Bellevue, WA 98008

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 17th day of September, 2009.

Andrew B. Dunn, LG, LHG
Section Manager
Water Resources Program
Northwest Regional Office

BACKGROUND

Description and purpose of the proposed change

Bernard and Nancy George own a home on a 0.19 acre parcel located at 4593 Sucia Drive, Ferndale, WA. This parcel is within the state-approved water service area for the Sandy Point Improvement Company (SPIC) and is also within the boundaries of the Lummi Indian Reservation. The George parcel is currently served by a single domestic permit-exempt well. Because of water quality (arsenic) problems with this well, the George's contacted SPIC and requested to connect to their system. But, due to the annual volume limitation of SPIC's existing water rights, a Washington State Department of Health (DOH) limitation on the number of approved connections, and a lengthy waiting list of potential customers, SPIC could not grant the George's a connection. However, through the exempt-well consolidation process (RCW 90.44.105), the George's have agreed to give up their exempt-well water right and transfer it over to SPIC. This process allows for a straight one-for-one transfer of the George's exempt-well water rights to SPIC's water right permit G1-25998P. There will be no other additional SPIC connections allowed as a result of this process.

The George application for change was accepted by the Department of Ecology on March 24, 2009.

George water system information

The George's property is currently served by a 6 inch wide x 44 foot deep well. The well has a welded steel casing with a 5 inch diameter Johnson #10 well screen installed from 39 to 44 feet. The static water level on June 27, 1989 (the date of completion), was 7 feet below the top of casing. On that same date the well was pump tested by Dahlman Pump & Well Drilling at 25 gallons per minute with 9.25 feet of drawdown after two hours.

SPIC water system information

SPIC operates under the authority of the following two water right permits (both are currently in good standing).

Water Right Number	*Priority Date*	*Instantaneous Quantity*	*Annual Quantity*	*Legal Description of Points of Withdrawal*
G1-00740P	August 5, 1971	230 gpm	143 ac-ft/yr	SW¼ NW¼ of Sec 4, T38N, R1E
G1-25998P (the subject right)	January 7, 1991	230 gpm (non-additive)	143 ac-ft/yr (non-additive)	NE¼ SW¼ of Sec 34, T39N, R1E SW¼ NW¼ of Sec 34, T39N, R1E
Totals		230 gpm	143 ac-ft/yr	

DOH has designated SPIC as a Group A community water system. SPIC is identified as DOH Public Water System #76105 and is currently operating under a green operating permit. Systems in this category are considered adequate for existing uses and for adding new services up to the number of approved connections. The DOH Sentry Web site currently lists the total approved number of connections for SPIC as 762.

Attributes of the subject water right and proposed change

Attributes	*Existing*	*Proposed*
SPIC Water Right Permit Number	G1-25998	G1-25998@2
Exempt Right Holder	Wayne & Susan George	Rights transferred to SPIC
Exempt Right Annual Volume	0.25 acre-feet per year (ac-ft/yr)	0.25 ac-ft/yr to be added to the SPIC permit

Exempt Right Instantaneous Rate	5 gallons per minute (gpm) due to the restriction of the arsenic treatment system	0.31 gpm to be added to the SPIC permit
Source	George exempt well (Date of first use unknown, well was completed on June 27, 1989)	SPIC well #5 (with well #3 as a back-up)
Points of Withdrawal	SE¼ SE¼ of Section 5, Township 38N, Range 1E Lat: 48.80732, Long: -122.70901	NE¼ SW¼ of Section 34, Township 39N, Range 1E (well #5) Lat: 48.81290, Long: -122.69927 SW¼ NW¼ of Section 4, Township 38N, Range 1E (well #3) Lat: 48.82407, Long: -122.67528
Purpose of Use	Single domestic	Community domestic
Period of Use	Year-round	Year-round
Place of Use	Whatcom County parcel #380105462108	SPIC service area (see page 1)

Legal requirements prior to processing

The following legal requirements were accomplished prior to processing the subject water right change application:

- **Public Notice**
  Public notice of the application was published in the *Record-Journal* on July 1 & 8, 2009. No protests were filed during the 30-day protest period. The Lummi Indian Business Council had previously filed letters of protest on March 26 and April 20, 2009.
- **State Environmental Policy Act (SEPA)**
  In accordance with WAC 197-11-305 and WAC 197-11-800(4), this water right change application is exempt from SEPA because the instantaneous withdrawal rate of the George well and the SPIC well(s) are less than 2250 gallons per minute.

INVESTIGATION

RCW 90.44.105 provides that permit-exempt uses (under RCW 90.44.050) may be consolidated into a valid right to withdraw groundwater only if all the following conditions are met:

- The exempt well taps the same body of public groundwater as the well to which the water right of the exempt well is to be consolidated.
- Use of the exempt well shall be discontinued upon approval of the consolidation amendment to the permit or certificate.
- Legally enforceable agreements have been entered to prohibit the construction of another exempt well to serve the area previously served by the exempt well to be discontinued, and such agreements are binding upon subsequent owners of the land through appropriate binding limitations on the title to the land.
- The exempt well or wells the use of which is to be discontinued will be properly decommissioned in accordance with chapter 18.104 RCW and the rules of the department.
- Other existing rights, including ground and surface water rights and minimum stream flows adopted by rule, shall not be impaired.

Each of these statutory conditions (and the Lummi protest) was investigated and is addressed as follows.

Same body of public groundwater

On July 8, 2004, this office issued an approval for a second point of withdrawal to be added to SPIC's permit G1-25998. This approval allowed well #5 (the Walltine Road well) to be added to well #3 as an authorized point of withdrawal. Well #3 is located off of Neptune Circle, approximately ½ mile northwest of the George well. The "same body of public groundwater" analysis (written by Andrew Dunn) for that request is nearly identical to the analysis needed for this change request. As such, the Dunn analysis was reviewed and utilized for much of the following information.

General geography of the area

The George's well and SPIC's well #5 (along with backup well #3) are located on the southwestern side of a geographic feature referred to as the Mountain View Upland. The Mountain View Upland is an elevated and isolated glacial plateau that is bound on all sides by low elevation land or the Strait of Georgia. The Mountain View Upland is bound on the west by the Strait of Georgia. To the northeast the upland is bound by the Custer Trough, which runs northwest-southeast and is occupied by both California and Dakota Creeks. The eastern side of the Mountain View Upland is bound by the Nooksack River as it flows past the Town of Ferndale. To the south the Mountain View Upland is bound by the Lummi River (also known as the Red River) valley and Lummi Bay (see Figure 1).

The elevation of the upland ranges from sea level to no greater than 375 feet above mean sea level (MSL), but most of the upland is from 100 to 200 feet above MSL. Lake Terrell (water surface elevation approximately 212 feet) is the largest water body located on the Mountain View Upland. There are a number of streams that drain the upland and flow into the surrounding streams and rivers or directly to marine waters. The largest of these upland streams is Terrell Creek, which flows from Lake Terrell and empties into Birch Bay.

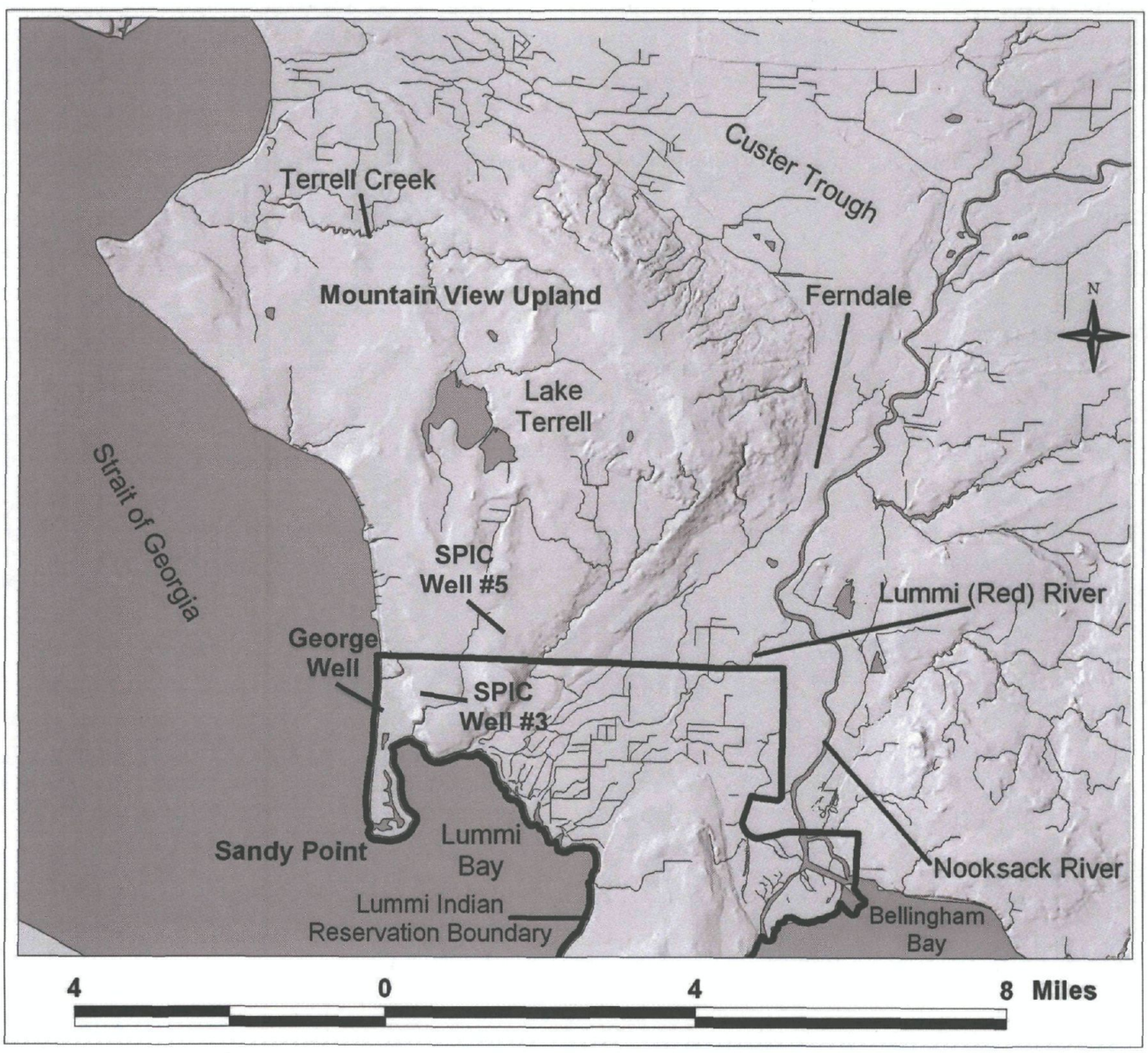


Figure 1 – General geography of the area

Geologic history of the area

The geology of the Mountain View Upland is shaped by its geographic location and layers of non-glacial and glacial deposits. The oldest unconsolidated unit used for water production below the Mountain View Upland is likely either the Cherry Point Silt (age unknown), the Olympia Formation (approximately 27,000 years ago), the Whidbey Formation (greater than 33,000 years ago), or their equivalent. While many hydrogeologic studies have been performed in this area, they have not focused on this non-glacial unit. After the non-glacial unit was deposited, the Fraser Glaciation began approximately 18,000 years ago and lasted until about 10,000 years ago. The three phases of this glaciation, from oldest to youngest, are the Vashon Stade, the Everson Interstade, and the Sumas Stade. The Vashon glacial period (Stade) began approximately 18,000 years ago. At that time the Vashon glacier advanced southward from Canada into the Puget Sound Lowland. Water flowing from the glacier deposited advance outwash, which was then overridden by the advancing glacier as it moved deeper into the Puget Sound. Advance outwash is cross-bedded sand and gravel and has been referred to as the Mountain View Sand and Gravel in this area. Vashon till, which was formed below the glacier, is compact and poorly sorted mixture of cobbles, pebbles, and sand in a matrix of silt and clay.

After its maximum advance, the Vashon glacier began to melt and retreat back toward Canada. The Everson Interstade was initiated when marine waters reoccupied the Puget Sound and the retreating glacier began to float on the water. In the northern Puget Sound Lowland, Everson glaciomarine drift was deposited under the marine water as sediment was shed from the melting glacier. Glaciomarine drift is primarily silt and clay with scattered gravel, cobbles, and boulders and the occasional layer or lens of sand and gravel. During this time, the Mountain View Upland was submerged beneath sea level. The Sumas Stade began when the sea level dropped and a small lobe of the Vashon glacier readvanced from the Canadian border into the Sumas River Valley of Whatcom County. This glacier deposited the sand and gravel Sumas outwash. Eventually, all of the glaciers retreated from the Puget Sound Lowland. Most recently, the Nooksack River, including its historic distributary the Lummi (Red) River, California Creek, and Dakota Creeks have incised and deposited alluvium within their current floodplains.

Hydrogeology of the area

It is believed that recharge of the water source tapped by the subject wells originates within the boundary of the Mountain View Upland. Most of the recharge is likely vertical infiltration of precipitation and leakage from surface water bodies such as Lake Terrell. There is no indication that water from the Nooksack River would recharge the water source underlying the Mountain View Upland under natural conditions.

There have been a number of potentiometric surface contour maps made for the southern Mountain View Upland (Newcomb and others, 1949; Cline, 1974; Beak Consultants, Inc, 1982; Pacific Groundwater Group, 1993; Pacific Groundwater Group, 1995; Robinson & Noble, 2003; Whatcom Environmental Services, 1999; Lindsay and others, 1995; and Aspect, 2009). All of the maps vary slightly, but generally show the highest ground water elevation to coincide with the area of highest topography. Ground water flow is generally from the center of the upland toward the edges with the water discharging to salt water or to the creeks and rivers surrounding the upland.

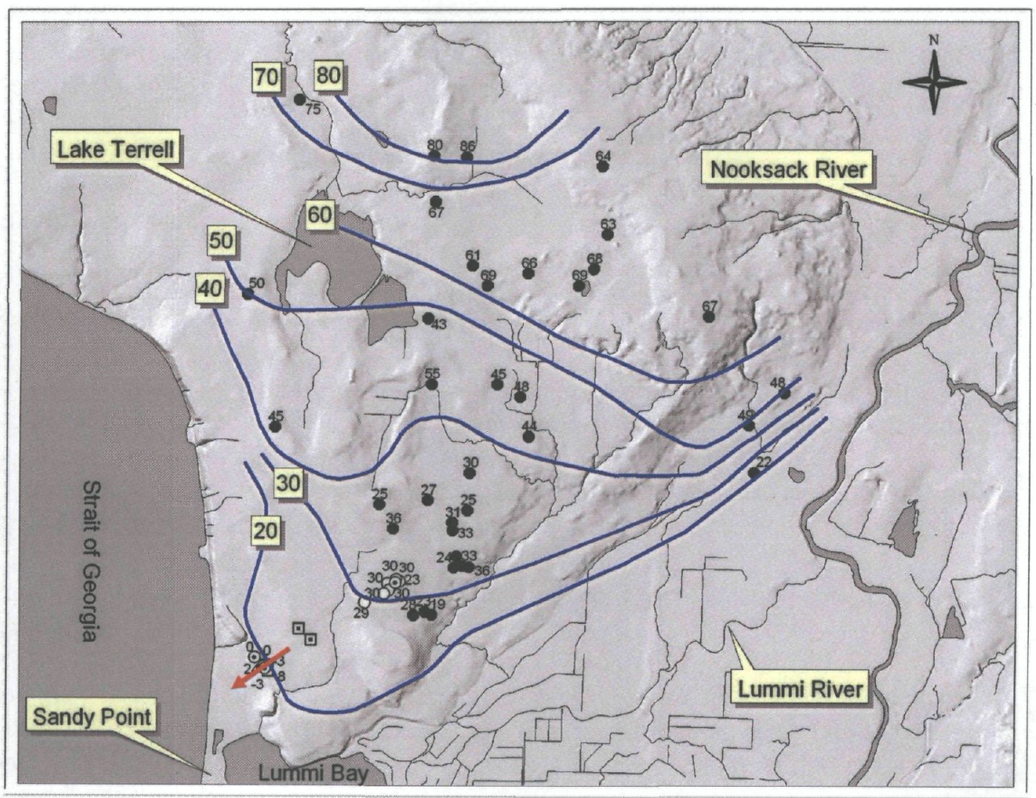


Figure 2 – Potentiometric surface for the southern Mountain View Upland (Dunn 2004). The red arrow represents the approximate groundwater flow direction in subject area.

The numbers by the wells in Figure 2 are the water level elevations obtained for that well from the well log or other data sources. These contours are representative of the aquifer zone that is found at an elevation below 50 feet above sea level. Not all wells were used and not all water level elevations fall within the appropriate contour. The potentiometric surface contours were drawn based on the best fit to the most data. Ground surface elevations were estimated using the Ferndale, Lummi Bay, and Blaine USGS 1:24,000 scale topographic maps.

Same body of public groundwater determination
The hydrogeology in the vicinity of the George's well and subject SPIC wells indicate that:

- The wells withdraw water from the same (Mountain View Upland) regional aquifer system;
- The recharge area for the wells is infiltration of water from precipitation and surface water bodies originating on the Mountain View Upland; and
- The water captured by the wells would have naturally discharged to salt water in the Strait of Georgia, Lummi Bay, and/or the tidally influenced area of the lower Lummi (Red) River valley.

Therefore, I have determined that the George's well and the subject SPIC wells tap the same body of public groundwater.

Use of the exempt well shall be discontinued

This change authorization shall be conditioned with the following provision:

> Upon connection with the SPIC water system, the George's must immediately cease use of their well. This mandatory cessation includes all possible uses of the well (i.e., domestic, stockwatering, irrigation, industrial, etc.). Failure to abide with this provision will cause cancellation of this authorization.

Legally enforceable agreements have been entered

This change authorization shall be conditioned with the following provision:

> Prior to Ecology issuing SPIC a superseding permit, the George's must file with the Whatcom County Auditor a legally enforceable title limitation that prohibits the present and all future owners of the subject parcel from ever constructing another well or wells to serve the parcel previously served by the right established under the groundwater exemption. Failure to abide with this provision will cause cancellation of this authorization.

The exempt well will be properly decommissioned

This change authorization shall be conditioned with the following provision:

> Within 12 months from the issuance of this report, the George's and/or SPIC must show compliance with RCW 90.44.105 and RCW 18.104 by submitting to Ecology a decommissioning water well report from a licensed well contractor verifying that the George well has been properly decommissioned. When submitting the report please include a cover letter referencing this Report of Examination. Failure to abide with this provision will cause cancellation of this authorization.

Other existing rights shall not be impaired

There are three concepts that are important when considering whether a withdrawal of water from a well would impair another existing water right. The concepts are defined as follows:

1. Impairment is an adverse impact on the physical availability of water for a beneficial use that is entitled to protection (i.e., water rights that are both senior and junior in priority to the right the applicant seeks to change).

2. Qualifying ground water withdrawal facilities are defined as those wells which in the opinion of Ecology or the courts are adequately constructed. An adequately constructed well is one that (a) is constructed in compliance with well construction requirements; (b) fully penetrates the saturated thickness of an aquifer or withdraws water from a reasonable and feasible pumping lift (WAC 173-150); (c) the withdrawal facilities must be able to accommodate a reasonable variation in seasonal pumping water levels; and (d) the withdrawal facilities including pumping facilities must be properly sized to the ability of the aquifer to produce water.

3. Well interference may occur when wells penetrate and withdraw ground water from the same aquifer. Each pumping well creates a drawdown cone that may interfere with another well.

These three concepts were considered during the investigation of the proposed request. However, due to the small quantities of water being transferred, SPIC's exclusive use of well #5 since April 2008, and no claims of impairment, it seems prudent to make use of the impairment conclusion from Ecology's 2004 change decision. The conclusion stated the following:

> Adding the proposed point of withdrawal [well #5] to ground water right G1-25598P will not impair any other water right holders. A conservative estimate predicts that there will be no greater than 11 feet of interference drawdown in any neighboring well. While interference drawdown can lead to impairment of a water right, it is not automatic and is not the case in this situation. The static water level elevation in the vicinity has been holding steady at approximately 30 feet above sea level indicating that ground water mining is not currently occurring in the area. Due to the fine-grained nature of the aquifer material, all of the wells have low well efficiencies, which will cause the water level in the well to be drawn down much farther than the actual water level drop in the adjacent aquifer when that well is pumping. None of the wells in the vicinity, including the proposed point of withdrawal, fully penetrate the aquifer zone that all wells have tapped.
>
> This water right change will not impair any federal reserved rights held in trust for the Lummi Nation. Addition of the new point of withdrawal will reduce the amount of water that is withdrawn from the original point of withdrawal [well #3]. Since there are a number of Lummi Nation wells in close proximity to the original point of withdrawal, this water right change will reduce the potential for impairment at this location.

The consolidation of the George's exempt water use into SPIC's existing permit will have a negligible effect on the current pumping regime. Therefore, no impairment of existing rights is anticipated.

Consideration of Protest

The Lummi Indian Business Council letter of protest stated, "All withdrawals from aquifers located in whole or in part on the Lummi Reservation directly impact the water rights of the Lummi Nation." For this consideration of protest, it also seems prudent to reference Ecology's 2004 change decision, which stated the following:

> The Lummi Indian Business Council's protest was based on concerns over current and future potential impacts on the tribal water supply in the Northern Lummi Aquifer that is used by the Lummi Nation for homeland purposes. The original point of withdrawal [well #3] for this water right is located within the exterior boundaries of the Lummi Indian Reservation. The proposed additional point of withdrawal [well #5] is located outside the exterior boundaries of the Lummi Indian Reservation. Ground water elevation contours show that ground water is flowing from the north onto the Lummi Indian Reservation. If SPIC moves some or all of its pumping to the proposed well, this will reduce the quantities withdrawn from the original point of withdrawal. Given the close proximity of wells operated by the Lummi Nation to the original point of withdrawal, this change will allow the Lummi Nation to withdraw greater quantities of water from their wells and reduce the amount of interference drawdown caused by so many wells pumping from such a small portion of the aquifer.
>
> To protect any senior water right holders, including Lummi Nation rights to the extent that they exist, the following provision will remain on any superseding documents issued for this SPIC water right: <u>This authorization to make use of public waters of the state is subject to existing rights, including any rights held by the United States for the benefit of Indians under treaty or otherwise.</u>

Discontinuance of use and decommissioning of the George's well may also help to reduce impact and the potential for seawater intrusion in the area of the (Neptune Circle) Lummi Nation wells. *It should also be noted that since SPIC has been exclusively using well #5, water levels in the Lummi Nation wells have increased by 9-10 feet.* In addition, because this is a request for change: 1) there will be no new water withdrawn from the overall aquifer system, 2) there will be no new development within the SPIC service area, and 3) there will no new connections allowed except for the George connection (a straight one-for-one transfer). Therefore, this change request should have no greater impact on Lummi Nation rights than previously existed.

<u>ADDITIONAL INVESTIGATION INFORMATION</u>

<u>Quantities eligible for transfer</u>

The annual volume (0.25 ac-ft/yr) recommended for transfer is based upon an average daily demand (ADD) of approximately 223 gallons per day. The instantaneous rate recommended for transfer was determined by

converting the ADD into a per minute rate by using the following calculation:

- 223 gallons per day ÷ 1440 minutes per day = 0.155 gallons per minute

So, 0.155 gallons per minute is needed to meet the ADD. DOH was consulted via e-mail to verify if this instantaneous rate is adequate to supply one additional connection. On August 11, 2009, Mike Dexel, DOH's Water Resources Policy Lead, sent the following response:

> *Using ADD to determine Qi may not be enough to meet the peak demands during the hottest days of the year when water use is typically highest. It's important that enough instantaneous water rights exist to meet this demand. We simply want to make sure enough legally accessible water is available for use and design a system with enough instantaneous water to avoid a public health risk.*
>
> *We design systems to meet the maximum daily demand (MDD). Reliable source capacity as well as the instantaneous water right quantity must be capable of supplying the MDD at a minimum. Generally, Qi should be calculated by multiplying ADD by 2 in order to meet MDD design criteria for domestic or municipal use.*

Therefore, the instantaneous rate recommended for transfer is 0.155 gpm x 2 = 0.31 gpm.

CONCLUSIONS

In accordance with RCW 90.44.105, I conclude that permit G1-25998P is in good standing and is eligible for change through the exempt well consolidation process. I have also concluded the subject wells tap the same body of public groundwater and the change will not cause impairment of existing rights. Based on these conclusions, this change request should be approved subject to existing rights and the provisions listed on page 2. Upon successful completion of provisions 1, 2, and 3, a superseding permit should be issued to reflect the consolidated instantaneous and annual quantities.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend the request for change from G1-25998P to G1-25998@2 be approved in the amounts and within the limitations listed below and subject to the provisions on page 2.

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:

- 0.31 gallons per minute consolidated under this change (see page 1 for totals)
- 0.25 acre-feet per year consolidated under this change (see page 1 for totals)
- Community domestic supply

Points of withdrawal

NE¼ SW¼ of Section 34, Township 39 North, Range 1 East (well #5)
SW¼ NW¼ of Section 4, Township 38 North, Range 1 East (well #3 – backup well)

Place of use

As described on Page 1 of this Report of Examination.

Report by: Buck Smith
Buck Smith, LG, LHG

September 16, 2009
Date

State of Washington Hydrogeologist 1479 Licensed Geologist

J. R. "BUCK" SMITH

Licensed Geologist/Hydrogeologist No. 1479

If you need this publication in an alternate format, please call the Water Resources Program at 425- 649-7000. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

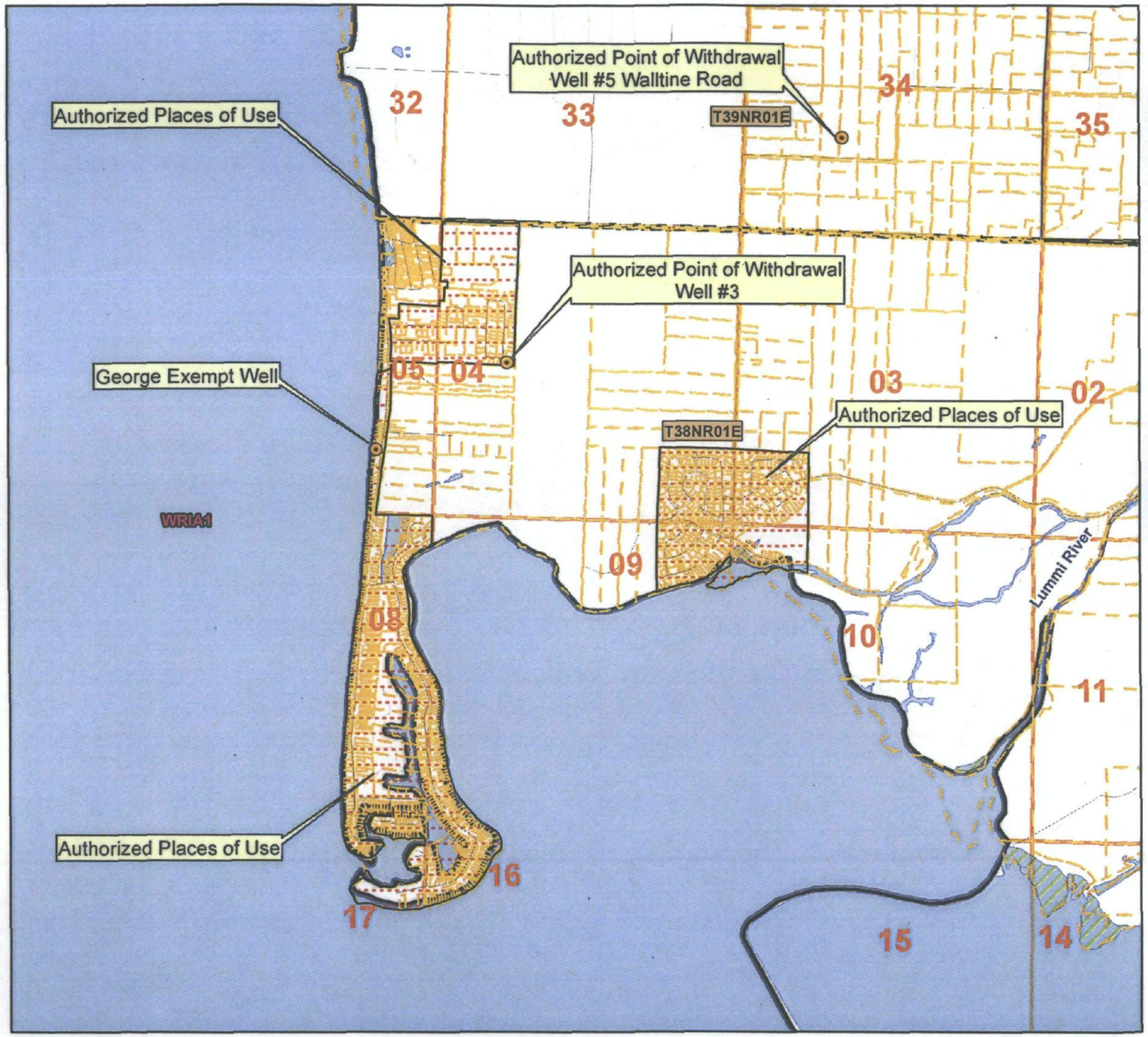
REFERENCES

Dunn, Andrew, 2004, Hydrogeologic Report of the Change Application for G1-25598P (Sandy Point Improvement Company), Technical Memorandum, Washington State Department of Ecology.

2004 Report of Examination for Change, CG1-25998, Administrative Order, Washington State Department of Ecology.

Sandy Point Improvement Company
Permit Number CG1-25998@2
Sec. 4, T 38N, R 01E
Sec. 34, T 39N, R 01E W.M.
WRIA 1 - Whatcom County

DEPARTMENT OF ECOLOGY
State of Washington



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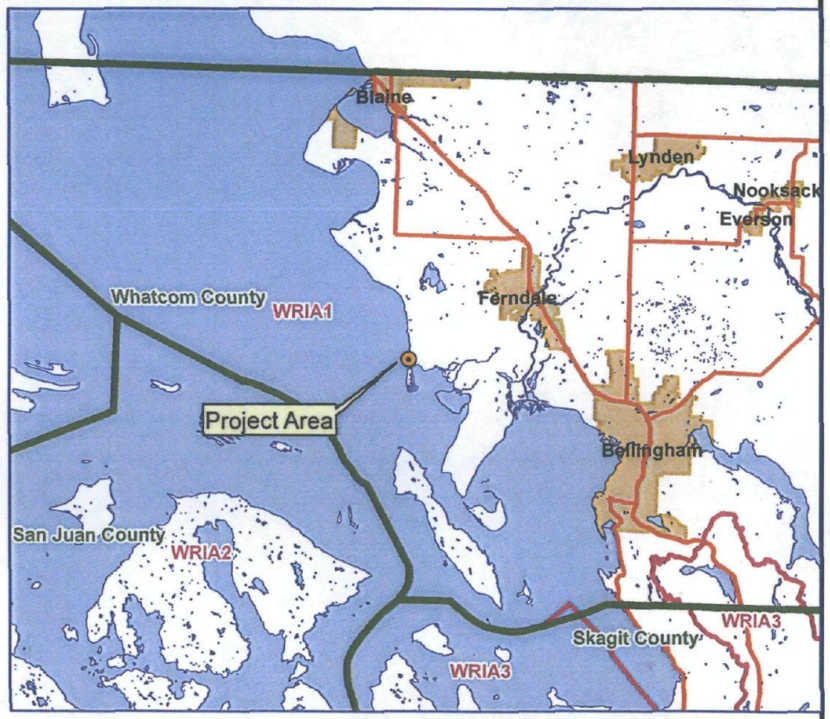

5 2.5 0 5 10 Miles

Legend

- County
- WRIA
- Highways
- Townships
- cities
- Sections
- Authorized Point of Withdrawal
- Authorized Place of Use

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.'

Attachment 1