

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

PRIORITY DATE 4/21/2014	WATER RIGHT NUMBER G1-28778
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MAILING ADDRESS WESTSIDE WATER ASSOCIATION PO BOX 267 VASHON ISLAND WA 98070	SITE ADDRESS (IF DIFFERENT)
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Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE 130*	UNITS GPM	ANNUAL QUANTITY (AF/YR) 150**
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*Total diversions and withdrawals from all sources under G1-28778, S1-00526C, and S1-*02339C shall not exceed 2.05 cfs (1020.44 gpm)
**Total annual quantity from all sources under G1-28778, S1-00526C, and S1-*02339C shall not exceed 286.20 af/yr

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Municipal		130	GPM	150		01/01 - 12/31

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION	
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID	CONNECTIONS
0	0	94950	225

Source Limitations

SOURCE FACILITY/DEVICE	WITHDRAWAL OR DIVERSION RATE	ANNUAL QUANTITY (AF/YR)	PERIOD OF USE (mm/dd)
Anderson Well	65 GPM	75	01/01 - 12/31
Canyon Well	65 GPM	75	01/01 - 12/31

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
KING	GROUNDWATER		15-KITSAP

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Anderson Well	2423029053		23N	02E	24	NESE	47.4687 N	122.4839 W
Canyon Well	1923039023		23N	03E	19	SESW	47.4643 N	122.4733 W

Datum: NAD83/WGS84

Place of Use (See Attached Map)

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

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

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	September 30, 2020	September 30, 2025

Measurement of Water Use

How often must water use be measured?	Weekly
How often must water use data be reported to Ecology?	Annually until PA filed, then upon request from Ecology thereafter
What volume should be reported?	Total Annual Volume (af/yr)
What rate should be reported?	Annual Peak Rate of Withdrawal (gpm)

Provisions

Wells, Well Logs and Well Construction Standards

All wells constructed in the state shall meet the construction requirements of WAC 173-160 titled "Minimum Standards for the Construction and Maintenance of Wells" and RCW 18.104 titled "Water Well Construction". Any well which is unusable, abandoned, or whose use has been permanently discontinued, or which is in such disrepair that its continued use is impractical or is an environmental, safety or public health hazard shall be decommissioned.

All wells shall be tagged with a Department of Ecology unique well identification number. If you have an existing well and it does not have a tag, please contact the well-drilling coordinator at the regional Department of Ecology office issuing this decision. This tag shall remain attached to the well. If you are required to submit water measuring reports, reference this tag number.

Installation and maintenance of an access port as described in WAC 173-160- 291(3) is required.

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.

WAC 173-173 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.

Department of Health Requirements

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

Water Use Efficiency

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

Proof of Appropriation

The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the permit. Elements of a proof inspection may include, as appropriate, the source(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. G1-28778, subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

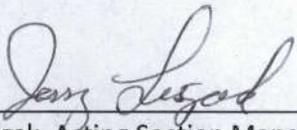
To appeal you must do the following within 30 days of the date of receipt of the Order.

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.
- You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW Ste 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

Signed at Bellevue, Washington, this 30th day of July 2014.



 Jerry Liszak, Acting Section Manager

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

INVESTIGATOR'S REPORT

Application for Water Right -- Westside Water Association

Water Right Control Number G1-28778

Douglas H. Wood, Department of Ecology

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number G1-28778. This application seeks to add groundwater sources to the water rights portfolio of the West Water Association, a small municipal water purveyor located in the northwestern portion of Vashon Island, in King County, Washington.

Westside Water currently has sufficient instantaneous pumping capacity (Qi) and annual quantity (Qa) to satisfy its current needs and its needs for the foreseeable future (see also Table 2 under Investigation portion of report). This application will therefore not allocate any new quantities, but rather will result in the issuance of a new permit for non-additive Qi and Qa that is tied to already allocated quantities associated with existing water rights held by Westside Water Association.

Table 1: Summary of Requested Water Right Attributes

Applicant Name:	Westside Water Association
Date of Application:	4/21/2014
Place of Use	The place of use (POU) of this water right is the service area described in the most recent Small Water System Management Program approved by the Washington State Department of Health, so long as the water system is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

County	Waterbody	Tributary To	WRIA
King	Groundwater		15-Kitsap

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Municipal	130	GPM	150	01/01	12/31

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Anderson Well	2423029053		23N	02E	24	NE SE	47.4687 N	122.4839 W
Canyon Well	1923039023	AHM-851	23N	03E	19	SE SW	47.4643 N	122.4733 W

CFS = Cubic Feet per Second; Ac-ft/yr = Acre-feet per year; Sec. = Section; QQ Q = Quarter-quarter of a section; WRIA = Water Resource Inventory Area; E.W.M. = East of the Willamette Meridian; Datum: NAD83/WGS84.

Priority Processing

This application is being processed under the priority processing criteria of WAC 173-152 based on a letter Ecology received from Robert E. James, P.E., Regional Manager for NW Drinking Water Operations of the Washington State Department of Health dated April 17, 2014 in which Ecology is asked to

expedite processing of this application to help resolve concerns over bacterial and arsenic contamination found in existing system sources.

The Vashon Westside Water Association Community

Vashon and Maury Islands lie at the western edge of King County, across Puget Sound, between two and three miles west of the city of Seattle. The Westside Water Association community serves islanders in an area approximately three miles south of the north end of Vashon Island and beginning about 1 mile west of Vashon Highway and then westward from there for another mile or so to the west edge of Vashon Island.

According to the Department of Health's Sentry database the Westside Water Association currently serves 520 people residing in 225 homes. The majority of Westside Water Association community connections serve properties that are five acres or larger in area in a mostly wooded rural setting. Typical water use by community members is for ¼ acre or smaller lawns with landscaping, some with kitchen gardens, in addition to indoor uses. Few, if any, community members appear to use water for agricultural purposes, and those who do, based on a review of aerial photos and mapped water rights locations, appear to have small operations that are likely using water rights independent of Westside Water Association.

Legal Requirements for Approval of Appropriation of Water

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted and used. Notice of this application was published in the Vashon-Maury Island Beachcomber on May 7, 2014 and May 14, 2014.

Consultation with the Department of Fish and Wildlife

The Department must give notice to the Department of Fish and Wildlife (DFW) of applications to divert, withdraw or store water. DFW was informed of this application on April 28. As of the date of this report, no concerns have been expressed by DFW regarding this project.

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 foot 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.

The application does not meet any of these conditions. It is therefore categorically exempt from SEPA and a threshold determination is not required.

Hydrogeology of the Project Area

The Westside Water Association water right project involves sites located near or adjacent to Shingle Mill Creek. The Anderson Well is drilled from a location on top of the a relatively flat plateau area about ¼ mile west of the creek while the Canyon Well is located immediately adjacent to the creek and about 200 feet lower elevation than the Anderson Well.

The springs currently utilized by Westside Water Association are situated at the base of the Vashon Advance Outwash (Qva), which lies above the Lawson Clay, a clay rich, silt and fine sand bearing unit (Qvlc) believed to be a glacio-lacustrine time equivalent or immediate precursor of the Qva.

The location of the lower Qva contact near the Canyon Well corresponds with the depth at which the Anderson Well is completed, suggesting that the Anderson Well is completed at the base of the Qva. The Canyon Well is completed at a depth of 300 feet in sand and gravel after first drilling through 275 feet through clay rich fine grained material becoming progressively sandier from 225 to 275 feet. The base of the Canyon well likely corresponds with pre-Vashon age (pre- 20,000 years before present) glacio-fluvial or interglacial aged (pre-60,000 year old) fluvial sediments.

It is apparent that there is a high degree of hydraulic connection between the Qva aquifer associated with the Anderson Well and the springs feeding the existing water rights serving the Westside Water Association. It is equally apparent that while there is a lesser connection between the deeper aquifer supplying the canyon well and the Qva, but the hydraulic connection must exist in order to recharge the deeper aquifer. Note however that pumping from the Canyon well will draw its recharge from aquifers above it and ultimately from the surface waters that recharges the shallower aquifers.

INVESTIGATION

Is the proposed Use Beneficial?

Providing clean and reliable water to the community is considered a beneficial use of water in Washington State.

Will the Proposed Use Impair Existing Water Rights ?

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.
- Instream flows may be impaired if a proposed use or change would cause the flow of the stream to fall to or below the minimum instream flow more frequently or for a longer duration than was previously the case.
- 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).

There are no instream flows established for surface water bodies on Vashon Island. Shingle Mill Creek while closed to further appropriation under Chapter 173-515 WAC, is not protected from impairment as it would if it had been regulated through establishment of a minimum instream flow.

Well test data for the Anderson well was provided by Westside Water consultant Northwest Water Systems. Landau Associates in 2003 wrote a memo to Island Water Management within which they provided an evaluation of the Canyon well. Based on the data supplied by Northwest Water Systems, the Anderson well would have a drawdown of approximately 2.4 inches at ¼ mile radius from the well after pumping 24 hours at 65 gpm. Based on the aquifer properties provided in the Landau memo, the Canyon well would have a drawdown of approximately 2 inches at ¼ mile from the well at its production aquifer .

There are two claims to vested groundwater rights located within ½ mile of the Anderson well and two claims to vested groundwater rights within ½ mile of the Canyon well (Figure 1). All appear to be shallow wells and are likely completed in the Qva aquifer. There may be minor drawdown of the potentiometric surface due to pumping of the Anderson well, but at the distance of these wells from the Anderson well there should not be enough drawdown to constitute impairment.

The Qva aquifer feeds springs that daylight along the length of Shingle Mill Creek. As such there is a potential for impairment of surface water rights, particularly if they are situated down gradient of the Anderson well. At least six surface water rights appear to fit this description. It should be noted however that these and Shingle Mill Creek are located over ¼ mile distant from the Anderson well and that the impact on springs at that distance is likely to be similarly small.

The Canyon well is completed nearly 300 feet below the stream bed of Shingle Mill Creek. Pumping from the Canyon well will have diffuse impact on the creek and the overlying aquifers; drawing is recharge from both, and intercepting a large portion of its recharge from water that would otherwise discharge directly or indirectly to Colvos Passage.

If during the development period of this permit Westside Water Association decides to develop an alternative well, the association shall first seek approval from Ecology for any new location. The association shall perform aquifer tests in accordance with Ecology instructions to be provided at that time.

Is Water Available for the Proposed Use?

For water to be available for appropriation, it must be both physically and legally available. The source of water for the proposed appropriation is non-additive. That means there shall not be any additional allocation from the source, which in this case means Shinglemill Creek, where existing water rights appropriated under certificate S1-00526C are 2.0 cfs and 250 af/yr and certificate S1-*02339C are 0.05 cfs and 36.2 af/yr (see Table 2). This application seeks non-additive Qi of 130 gpm and non-additive Qa of 150 af/yr.

All groundwater production will be subtracted from existing surface water rights.

Table 2: Water Rights Held by Westside Water Association*

File No.	Certificate No.	Priority Date	Qi CFS (Additive)	=	Qi GPM (Additive)	Qi GPM (Non-Additive)	Qa (Additive)	Qa (Non-Additive)
S1-00526C	S1-00526C	02/18/1964	2.0		898		250	
S1-*02339C	2743-A	06/21/1928	0.05		22.44		36.20	
G1-28778		04/21/2014				130		150
Total			2.05	=	1020.44		286.20	

* Includes this application

The total portfolio quantities held by Westside Water Association prior this new application was:

Qi = 2.05 cubic feet per second (cfs)

Qa= 286.20 acre-feet per year (af/yr)

The total portfolio quantities that will be held by Westside Water Association after approval of this application will not be changed.

Physical availability

The two points of withdrawal have been tested, one (the Anderson well) using a constant rate test and the other (the Canyon well) using a step test. Both appear to be capable of providing 65 gpm, thus water is physically available.

Legal availability

In order to determine whether water to be legally available for appropriation, the following factors are considered:

- Instream Flow Rule Closure
- Administrative Closure in Conjunction with Department of Fish and Wildlife
- Closure based on Regional Planning

The Needle Creek/Shingle Mill Creek sub-basin is closed to new consumptive surface water appropriations through WAC 173-515. Groundwater appropriations are also closed to new consumptive appropriations if the new appropriation would clearly have an adverse impact on closed surface water bodies that would be contrary to the intent of Chapter 173-515 WAC.

While a groundwater withdrawal pumping at a rate of 130 gallons per minute would not necessarily result in an impact that is clearly adverse and contrary to the intent of the objectives of the closure of Shinglemill Creek (the standard required under Chapter 173-515-050), the 130 gpm and the 150 af/yr annual quantity derived from that pumping in this case would be deducted from existing allocated quantities allocated under certificates 2743-A and S1-00526C (i.e. non-additive Qi and Qa), thus negating the issue since non-additive is already allocated and thus non-consumptive with respect to the source, and therefore exempt from the closure under WAC 173-515-070.

Will the Proposed Use prove Detrimental to the Public Interest ?

The proposed new permit allows Westside Water to provide for the future of the community while at the same time helps solve what has been a long term water quality problem through adoption of a conjunctive management system of wells and springs.

Consideration of Protests and Comments

No protests were filed against this application.

Conclusions

The facts in this investigation support findings that water is available, that the proposed withdrawals will not impair existing water rights, that the proposed use will be beneficial, and that the proposed permit will not prove detrimental to the public interest.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a water right be approved 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:

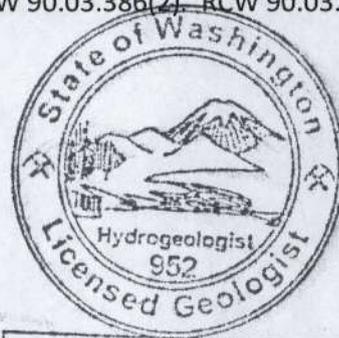
130 gallons per minute (Non-Additive)
150 acre-feet per year (Non-Additive)
Municipal Supply

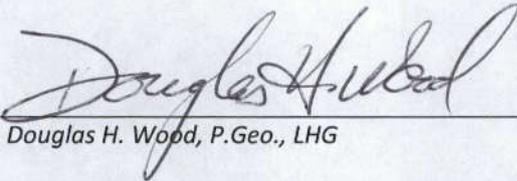
Point of Withdrawal

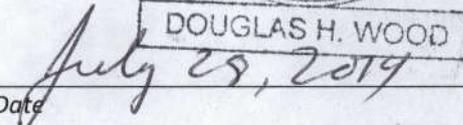
NE¼, SE¼, Section 24, Township 23N, Range 2E.W.M.
SE¼, SW¼, Section 19, Township 23N, Range 3E.W.M.

Place of Use

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




Douglas H. Wood, P.Geo., LHG


Date July 29, 2019

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.

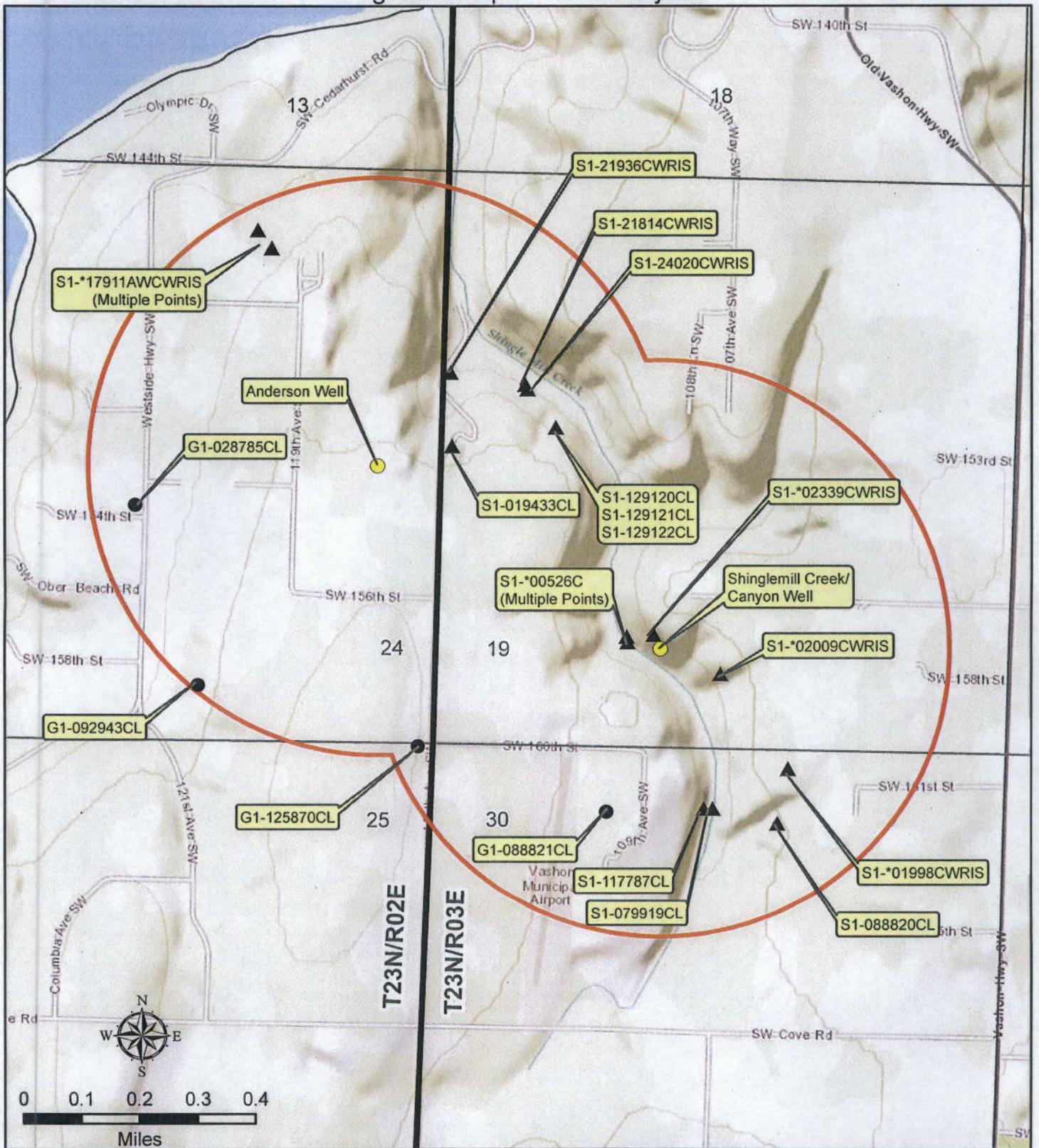
Selected References

Booth, Derek, and Troost, Kathy, 2004 (unpublished), Surficial Geology of Vashon/Maury Island, King County, WA, King County Department of Natural Resources and Parks.

Weber, Eric, F. L.G., 2003, Technical Memorandum Re: Shinglemill Canyon Well for Westside Water Association.

Krause, Todd, P.E., 2014, Technical Memorandum Re: Westside Water Association Anderson Well Pump Test Analysis.

Figure 1: Impairment Analysis

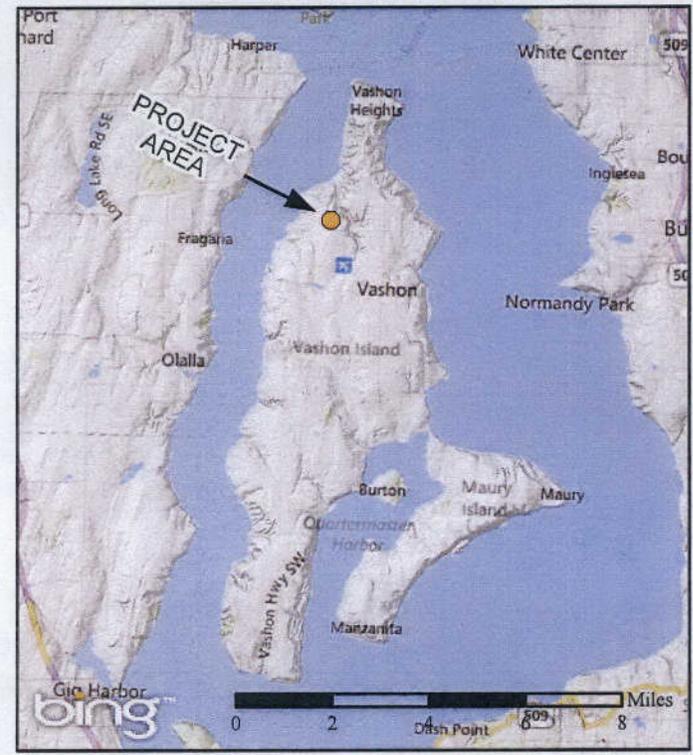
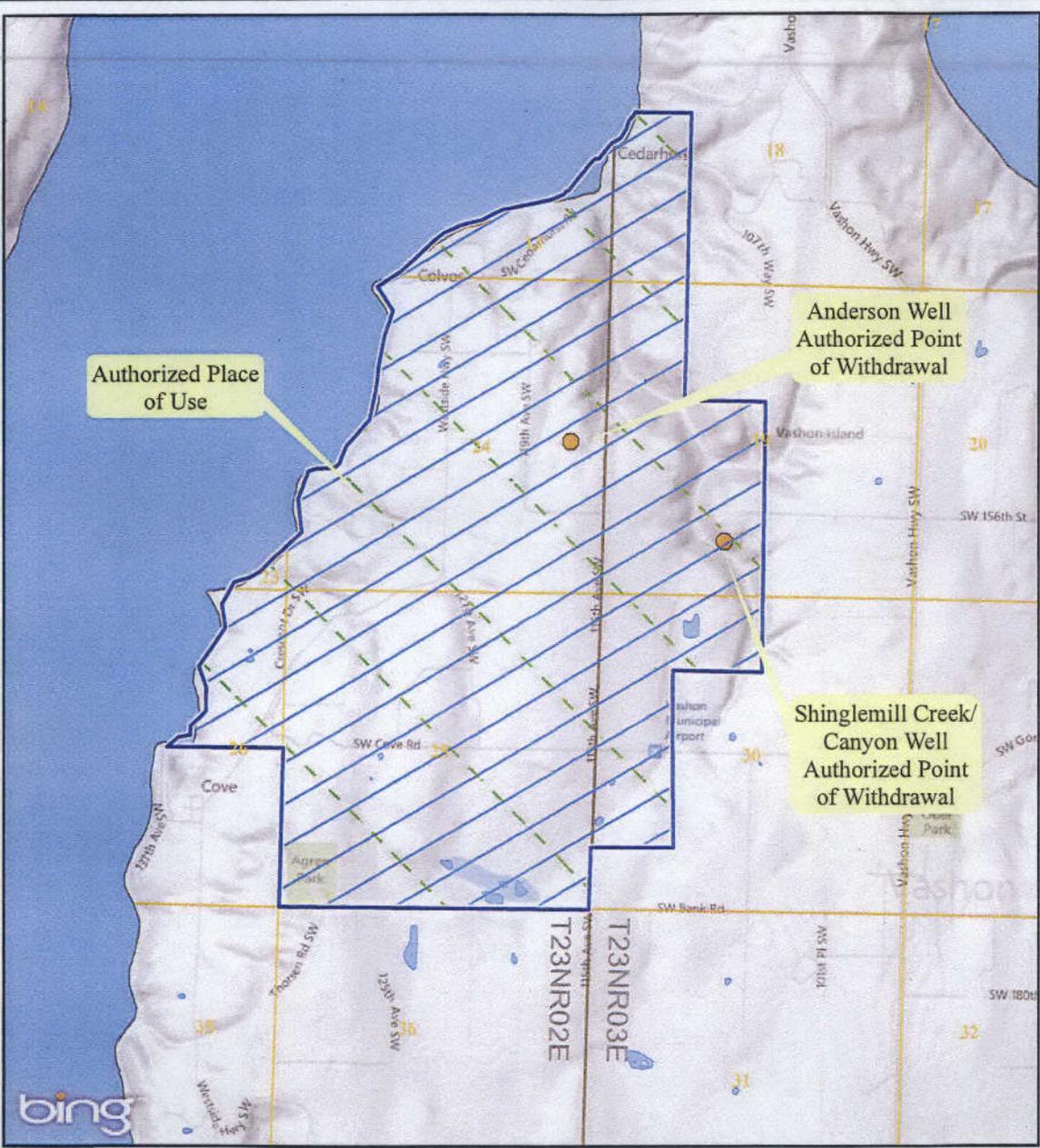


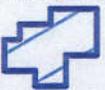
- Anderson and Shinglemill Creek/Canyon Wells
- Half Mile Radius
- Ground Water Right Document
- ▲ Surface Water Right Document

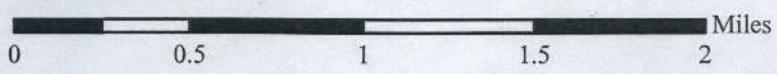


Water Right Documents within
One-Half Mile of Water Right Document G1-28778
Westside Water Association
Sec 24, T 23N, R 2E, W.M. &
Sec 19, T 23N, R 3E, W.M.
WRIA 15, King County

Westside Water Association
 Water Right G1-28778
 Section 24 T 23N R 02E W.M.
 and Section 19 T 23N R 03E W.M.
 WRIA 15 - Vashon Island - King County



- Legend**
-  Authorized Place of Use
 -  Authorized Point of Withdrawal
 -  Water Body
 -  Townships
 -  Sections



Map Date: 5/23/2014



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