



State of Washington
DRAFT
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

File No. G1-28204
WAC Doc ID: 4184047

PRIORITY DATE April 7, 2004	APPLICATION NUMBER G1-28204
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MAILING ADDRESS CRSTOL Whidbey Corporation PO Box 594 Freeland, WA 98249-0594	SITE ADDRESS (IF DIFFERENT)
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Quantity Authorized for Withdrawal or Diversion		
DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
35	GPM	8.4

Purpose						
PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Multiple Domestic Supply	35			8.4		Year-round, as needed

Source Location			
WATERBODY	TRIBUTARY TO	COUNTY	WATER RESOURCE INVENTORY AREA
Aquifer C		Island	6

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well 1	S6625-00-0005-0	29N	3E	21	NE SW	47.983996	-122.430343

Datum: WGS84

Place of Use (See Map, Attachment 1)

PARCEL

6625-00-0005-0

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

Feek’s First Plat of Island Farm 6625, Lots 5 – 12 (totaling 75.29 acres), SW ¼, Section 21, Township 29 N., Range 3 E.W.M., Parcel S 6625-00-0005-0

Once this system reaches 15 connections the place of use (POU) of this water right is the service area described in the most recent Water System Plan approved by the Washington State Department of Health, so long as CRSTOL Corporation is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

Proposed Works

A 6-inch well drilled to a depth of 118 feet, and associated water system (design to be determined)

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
<u>Started</u>	<u>January 1, 2019</u>	<u>January 1, 2024</u>

Measurement of Water Use

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

Provisions

Measurements, Monitoring, Metering and Reporting

An approved measuring device shall be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173, which describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the 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.

Water Use Efficiency

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

Proof of Appropriation

The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the permit. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. G1-28204, subject to existing rights and the provisions specified above.

Your Right To Appeal

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

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

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

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 111 Israel RD SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

Signed at Bellevue, Washington, this _____ day of _____ 2012.

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

*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://www.Leg.wa.gov/CodeReviser> .*

BACKGROUND

Water Right Application G1-28204 has priority date of April 7, 2004. The application was filed for 35 gpm, and adequate water for the domestic supply of 28 homes. The purpose of use is multiple domestic supply, however at full buildout, this system will qualify as being for municipal supply purposes. The project site is located in the Island Water Resource Inventory Area (WRIA) 6 in Island County which includes Whidbey and Camano Islands.

Project Description

The CRSTOL project site is located on the southern end of Whidbey Island approximately 4 miles south of Langley. Useless Bay and Admiralty Inlet are located to the west.

Table 1
Summary of Application No. G1-28204

<i>Attributes</i>	<i>Proposed</i>
Applicant	CRSTOL Whidbey Corporation
Application Received	April 7, 2004
Instantaneous Quantity	35 gpm
Annual Quantity	Unspecified
Point of Diversion	A well, located 2425 feet East and 2130 feet North of the SW corner of Section 21, T29N/R03E
Purpose of Use	Multiple Domestic Purposes
Period of Use	Year-round as needed
Place of Use	Feek's First Plat of Island Farm 6625, Lots 5 – 12 (totaling 75.29 acres), SW ¼, Section 21, Township 29 N., Range 3 E.W.M., Parcel S 6625-00-0005-0

Legal Requirements for Application Processing

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

- **Public Notice**

A notice of publication was published in the Whidbey News-Times on May 1 and 8, 2004. No protests were received as a result.

In a January 16, 2009 comment letter the Washington Department of Fish and Wildlife indicated that Maxwellton Creek supported populations of trout and salmon. WDFW requested that the interaction between groundwater withdrawals and flows in-creek be assessed to determine if the project would have an adverse impact to the creek. These issues are further discussed in the Report of Examination.

- **State Environmental Policy Act (SEPA)**

The subject water right application is not subject to SEPA [WAC 197-11-305 and WAC 197-11-800(4)] because the instantaneous quantity is less than the threshold of 2,250 gpm.

- **Water Resources Statutes and Case Law**

Chapters 90.03 and 90.44 RCW authorize the appropriation of public water for beneficial use and describe the process for obtaining water rights. Laws governing the water right permitting process are contained in RCW 90.02.250 through 90.03.050.

Based on the provisions of RCW 43.21A.690 and RCW 90.03.265, this application has been processed by Pacific Groundwater Group under Ecology Cost-Reimbursement Agreement No. PGG005 (master contract No. C1000192).

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

RCW 90.03.265(1)(b) provides that the requirement for an applicant to pay for the processing of senior applicants does not apply in situations where it can be determined that the water allocated to one party will not diminish the water available to a senior applicant from the same source of supply. This application is the oldest and most senior in this subbasin.

INVESTIGATION

The examination of Ground Water Right Application G1-28204 was led by consultants from Pacific Groundwater Group contracted as part of Ecology's cost reimbursement program to facilitate the processing of the application. Noel S. Philip, LHG, of the Water Resources Program, Ecology (Northwest Region), oversaw the examination and provided review.

The intent of this application is to secure a permit for a proposed 28 home residential development. A site visit was conducted by Jill Van Hulle and Peter Schwartzman of Pacific Groundwater Group on June 12, 2012. The visit included the inspection of the production well and the project site.

The investigation included, but was not limited to, the review of:

- The State Water Code, specifically WAC 173 and RCW 90.03 and 90.44
- Washington State Department of Ecology, 2012, Washington State Well Log Viewer website, <<http://apps.ecy.wa.gov/wellog/index.asp>>.
- Washington State Department of Ecology, 2012, Water Rights Tracking System (WRTS) website <<http://www.ecy.wa.gov/programs/wr/rights/tracking-apps.html>>.
- Washington State Department of Ecology, April 19, 2004, Hydrogeological Report for Change Application GWC 5825 (Freeland Water District).
- Island County, 2005. Island County Water Resource Management Plan. Adopted June 20, 2005.
- Sapik, D.B. et al., 1988, Ground-water Resources and Simulation of Flow in Aquifers Containing Freshwater and Seawater, Island County, Washington. U.S. Geological Survey Water Resources Investigations Report 87-4182.
- Anderson, H.W., Jr. 1968, Groundwater Resources of Island County Washington Division of Water Resources, Water Supply Bulletin 25, Part 11, 317 p.
- Robinson Noble Saltbush Inc. CRSTOL Whidbey Corporation Well 1 Testing Report. Consultant's report dated March 2005.

Site Description

The project site is located on Southern Whidbey Island in a generally rural area. The surrounding area is primarily agricultural with forested areas and scattered homes.

The Island County Water Resource Management Plan (2005) for Whidbey Island established 33 Sub-basins that are based on estimated groundwater flow divides. The CRSTOL well is located in Subbasin 24.

The most prominent surface water feature is Maxwellton Creek which flows through the project site creating a perched wetland complex. Maxwellton Creek generally flows in a southwest direction from its headwaters north of Miller Lake into the Maxwellton estuary and then into Useless Bay.

While most WRIA 6 streams are intermittent or ephemeral, and generally do not provide a sufficient flow of water to support salmonids, Maxwellton Creek is *presumed* to flow throughout its length year-round and to support small populations of resident and anadromous salmonids. The 1992 *Washington State Salmon and Steelhead Stock Inventory (SASSI)* identifies coho and cutthroat as present in Maxwellton Creek drainage but stock status is unknown.

The subbasin is rural and agricultural in nature and laced with drainage canals. A tidegate controls the discharge of water into the estuary, and culverts create problems for fish passage and flooding. Many areas of the subbasin remain undeveloped and have stands of mixed forests.

General Hydrogeology

The hydrogeology of Southern Whidbey Island has been shaped by at least three periods of glaciation, within intervening non-glacial periods between them. All of the aquifers tapped in this portion of the island are completed in unconsolidated sediments. The *Island County Ground Water Management Plan, Part A, Technical Memorandum* (Island County, 2005) describes the groundwater-flow system as a series of discontinuous, permeable, water-bearing sediments (sand and gravel aquifers) surrounded by zones of lower-permeability sediments (silt, clay, and glacial-till aquitards).

The USGS (Sapik et al, 1988) described five aquifer zones, Aquifer A (oldest and deepest) through E (youngest and shallowest). Erosion and deposition result in some units being missing in some areas. In general, outwash deposits consisting of sand and gravel are the more permeable units and the primary source of supply to local wells.

The sea level aquifer (Aquifer C) forms the primary aquifer on Whidbey Island. It generally lies at or below sea level at elevations near sea level to about 100 feet below sea level.

Production Well

The subject well is located off of Coles Road in the SE ¼ SW ¼ of Section 21, Township 29 North, Range 3 East on the south end of Whidbey Island. Elevation at the site is approximately 90 feet NAVD88 (about 86 feet above mean sea level or “msl”).

The well was drilled in October of 2004 under the authority of a Preliminary Permit issued by Ecology. The well was drilled to a total depth of 118 feet below land surface (bls) and was screened between depths of 106.5 and 116.5 feet bls. The static water level was 68 feet below the top of the casing or about 18 feet msl in 2005 and during PGG’s site visit on June 12, 2012. The driller’s log documents the soils encountered down to a depth of 88 feet bls, where the borehole intercepted a water-bearing sand aquifer. Given that the well is completed just 18.5 to 28.5 feet below where the borehole encountered these deeper water-bearing materials, it is likely that the interval between 88 and 116.5 feet bls consists predominantly of water-bearing materials. Testing of the well at 41 gpm exhibited a drawdown of 1.8 feet within the well (less is expected immediately outside the well) with a specific capacity of 22.6 gpm/ft. PGG interprets the aquifer test results to indicate a transmissivity of about 155,000 gpd/ft.

Preliminary water quality sampling indicated that the water had elevated concentrations of iron (3.5 mg/L) and manganese (0.155 mg/L) compared to their respective MCL's of 0.3 and 0.05 mg/L. **The chloride levels was 16 mg/L with a conductivity level of 299 uS/cm**

Site Specific Hydrogeologic Assessment

The CRSTOL well is completed between 20 to 30 feet below sea level in the confined Sea Level Aquifer (Unit C). Based on the lithology in the driller's log, the aquifer appears to be confined by units described as "sand, silt" and "sand, silt, gravel" which were observed from about +65 to -2 feet elevation (msl). The top elevation of the completion aquifer (-2 feet msl) is consistent with the USGS interpretation of the top of the Sea Level Aquifer, which is mapped at between -50 and 50 feet msl (Sapik et al, 1988). The USGS interpret the Sea Level Aquifer to be about 50 feet thick in the site vicinity (ibid) and report an estimated island-wide median hydraulic conductivity of about 68 ft/d. These values combine to provide a transmissivity of about 26,000 gpd/ft, which is lower than the 155,000 gpd/ft estimated by PGG from aquifer test results. However, the USGS report a hydraulic conductivity range of an order of magnitude in both directions, and the local value interpreted from the CRSTOL Well aquifer test is within this range.

PGG estimated drawdown in the Sea Level Aquifer from pumping the CRSTOL Well using the analytic element model GFLOW. The GFLOW model was specified with constant head conditions along the coastline (sea level), a uniform transmissivity of 26,000 gpd/ft for the confined aquifer (using the lower value of transmissivity will provide larger estimates of drawdown and is therefore conservative), and a pumping withdrawal equivalent to the annual allocation of 14 af/yr (8.7 gpm).

Model calculations estimate that drawdown in the aquifer is expected to be about 0.2 feet at a distance of 860 feet from the well and 0.1 feet at a distance of 3,600 feet from the well (compared to 6,100 feet between the well and the coastline). Surrounding wells in the Sea Level Aquifer will not be impaired with this small amount of drawdown.

Effect to Neighboring Groundwater Users

Groundwater wells at greatest risk of potential impairment are those which are completed in the same aquifer and located in close proximity to the subject well. However; as previously noted the amount of drawdown predicted to occur as a result of pumping this well is estimated to be less than 0.2 feet beyond a distance of 860 feet.

The Department of Ecology Water Rights Application Tracking System (WRATS) shows that no groundwater certificates have been issued within a half mile radius of the project, however there are five water right claims within this same radius. Four of the claims were filed under the name of Bill and Agnes Lanning for irrigation of 16 acres from four separate wells. The Lanning well is located approximately 2,650 northeast of the CRSTOL well.

Ecology's Well Log database has approximately 20 wells of record within this same area. These well logs are typically associated with exempt wells that are used for smaller non-permitted uses. The nearest well to the CRSTOL Well is located approximately 1000 feet due east (Lybach Well). The Lybach well is 153 feet deep and has a static water level of 87 feet which means that the well has over 70 feet of available drawdown and would not be impaired by the estimated 0.2 feet drawdown.

Washington water law does not consider drawdown to be an impairment of existing water rights, unless the affected wells fully penetrate the aquifer and can no longer produce adequate water to meet the demands for which they were intended. The aquifer shows adequate capability to produce water in the amount requested without impairment to neighboring wells.

Seawater Intrusion

One of the primary considerations when evaluating a water right application in Island County is the potential for withdrawals to cause seawater intrusion. Seawater intrusion is the movement of saline (salty) marine water into a freshwater aquifer. When an aquifer is in hydraulic connection with saline marine waters, such as Puget Sound, portions of the aquifer may contain saltwater, while other portions contain freshwater. Freshwater is slightly less dense (lighter) than saltwater and, as a result, tends to float on top of the saltwater when both fluids are present in an aquifer.

When a well is pumped, water levels in the vicinity of the well are lowered, creating a drawdown cone. If a saltwater zone exists in the aquifer beneath the well, the saltwater will rise up toward the well screen when the well is pumped (upconing). In some places a salty zone is not present beneath the well, in which case the water level (head) can be pulled significantly below sea level by pumping and yet not induce seawater intrusion, as long as the head in the aquifer between the pumping well and the submarine aquifer outcrop remains high enough to prevent saltwater from entering into the base of the aquifer (lateral intrusion).

The location of the CRSTOL well is defined as a low risk area for seawater intrusion using the definition contained within Island County Code (ICC 8.09.099)¹. Based on the classification scheme defined in ICC 8.09.099 this site is classified as low risk because it is not within 1 mile of other wells that have historical or current chloride concentrations above 100 mg/L.

The risk of seawater intrusion into the CRSTOL well is very low, given its static water-level elevation (18 feet msl) and the relatively small drawdown expected from either 1) long-term pumping at the Qa of 8.7 gpm (see discussion above) or 2) short-term pumping at the Qi of 35 gpm (see discussion of aquifer test above). Based on the Ghyben-Herzberg approximation, this groundwater elevation is sufficient to preclude the occurrence of seawater in the aquifer at this location, both under non-pumping and pumping conditions. Upconing is therefore not considered an issue.

¹ Island County classifies risk for seawater intrusion under Island County Code (ICC) 8.09.099. The code looks at groundwater elevations and chloride concentrations within ½ mile of the location in question.

Drawdown from pumping at the CRSTOL site will propagate to the coastline, but the expected drawdown is very small and unlikely to cause issues with coastal wells. The marine shoreline is approximately 6100 feet away, and the shoreline area is classified as 'medium risk', indicating low groundwater elevations but no elevated (>100 mg/l) chloride concentrations. Given this lack of elevated chloride, the small amount of drawdown expected at the coast is unlikely to cause significant lateral intrusion issues.

Effects to Surface Water

Pumping from the CRSTOL Well would likely have negligible effects on baseflow in Maxwellton Creek because the creek is hydraulically insulated from the Sea Level Aquifer by at least one intervening aquitard. Flowing out of Miller Lake, Maxwellton Creek first crosses about 0.7 miles of quaternary alluvium (coming within ¼ mile of the CRSTOL well), then 0.4 miles of glaciomarine drift, 1.8 miles of glacial till and finally 0.7 miles of quaternary alluvium before it reaches the coast. The alluvium and glaciomarine sediments immediately downstream of Miller Lake appear to support perched surface water, as evidenced by the difference between wetland/lake elevations (about 65-70 feet NAVD88, or 61-66 feet msl) and groundwater elevation in the Sea Level Aquifer (18 feet msl)². Glaciomarine drift is reported to contain low permeability materials (silt interbeds and diamicton) which would be capable of perching groundwater, and the alluvium that supports Miller Lake may be underlain by low permeability materials such as silty sediments or till.

Although few well logs are available where Maxwellton Creek crosses the upstream alluvium and glaciomarine sediments, more logs are available along Maxwellton Creek where it crosses the till. The logs typically showed till-like sediments (e.g. "hardpan") close to the land surface and groundwater elevations significantly below creek elevations (closer to sea level). These observations suggest that the till provides some hydraulic insulation or perching between the Sea Level Aquifer and surface-water features.

Near the coast, where Maxwellton Creek crosses Quaternary alluvium, the creek flows in a southerly direction about 0.15 miles (parallel to the coast). Geologic exposures mapped between the creek and the coast include glaciomarine sediments and till. Creek elevations in this 0.7-mile reach come fairly close to sea level; however, wells near this reach are typically completed where the first water bearing unit appears to be encountered: below -50 feet msl and overlain by lower permeability sediments. Given that the USGS map the top of the next deeper aquifer (Aquifer B) at -150 feet msl, these wells are likely completed in the Sea Level Aquifer. The well logs suggest some hydraulic insulation between the creek and the Sea Level Aquifer all the way to the coast. Hydraulic insulation is expected to limit pumping impacts on Maxwellton Creek baseflow to very small amounts.

² In this case, use of the term "perched" refers to water levels held up due to underlying low permeability sediments – not necessarily the formal definition of unsaturated conditions beneath a low permeability aquitard.

Quantities for Permit\Demand Forecast

Annual water allocation, for multiple domestic use, required by the applicant is calculated using the number of anticipated connections and water use per connection. Residential water use is based on historical and current data from similar water systems on Whidbey Island. Presently, these systems indicate average use per connection is approximately one-third (0.3) acre-foot per year (afy). At this rate, the annual water quantity required by the applicant to serve 28 residential connections is 8.4 afy.

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

Domestic water supply is considered a beneficial use of water.

Availability

Water is physically available for appropriation. Pump testing has indicated that the well could produce 41 gpm with minimal drawdown. This exceeds the requested withdrawal rate of 35 gpm.

Potential for Impairment

Other Groundwater Users

No water right certificates or groundwater claims have been filed within a half mile radius of the CRSTOL Well, and the nearest domestic well is located far enough away so as to not be affected by the proposed operation of this project. The aquifer shows adequate capability to produce water in the amount requested without impairment to neighboring wells.

Surface Water Bodies

Maxwelton Creek is the primary surface water body in this part of the basin. As previously described the creek is fish bearing and flows year-round.

Withdrawals from the CRSTOL Well are not expected to have a significant effect on surface-water bodies due to the occurrence of low permeability aquitard materials between the Sea level Aquifer and the land surface. The hydraulic insulation provided by these low permeability sediments will minimize transmission of drawdown adjacent to surface-water bodies.

Sea Water Intrusion Evaluation

The static water level in CRSTOL Well is 68 feet bgs at an estimated elevation of 18 feet msl. Based on drawdown expected in the pumping well, this groundwater elevation is sufficient to preclude saltwater upconing at the well. Drawdowns with distance from the CRSTOL Well are estimated to be very small, especially along the coastline ($\geq 6,000$ feet from the well), thus minimizing the potential for lateral intrusion along the coast. Given the absence of reported chloride problems along the coast, salinization of coastal wells due to CRSTOL Well withdrawals is expected to be insignificant.

Public Welfare

RCW 90.03.290 requires that a proposed appropriation not be detrimental to the public interest.

The 1971 Water Resources Act provides the most comprehensive list of legislative policies that guide the consideration of public interest in the allocation of water. These policies generally require a balancing of the state's natural resources and values with the state's economic well-being. Specifically, the policies require allocation of water in a manner that preserves instream resources, protects the quality of the water, provides adequate and safe supplies of water to serve public need, and makes water available to support the economic well-being of the state and its citizens.

Public water supply is considered a beneficial use in accordance with RCW 90.54.020. No detriment to public interest could be identified during the examination of the subject application

CONCLUSIONS

The conclusions based on the above investigation are as follow:

1. The proposed appropriation for multiple domestic\municipal supply is a beneficial use of water;
2. The 35 gpm and 8.4 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 interest.

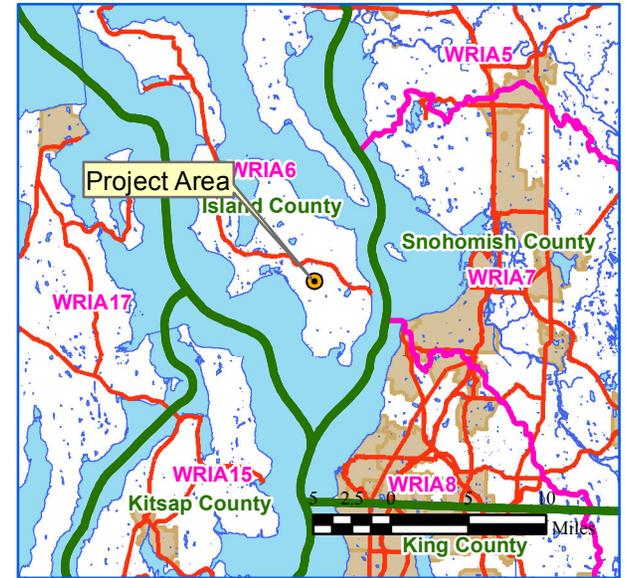
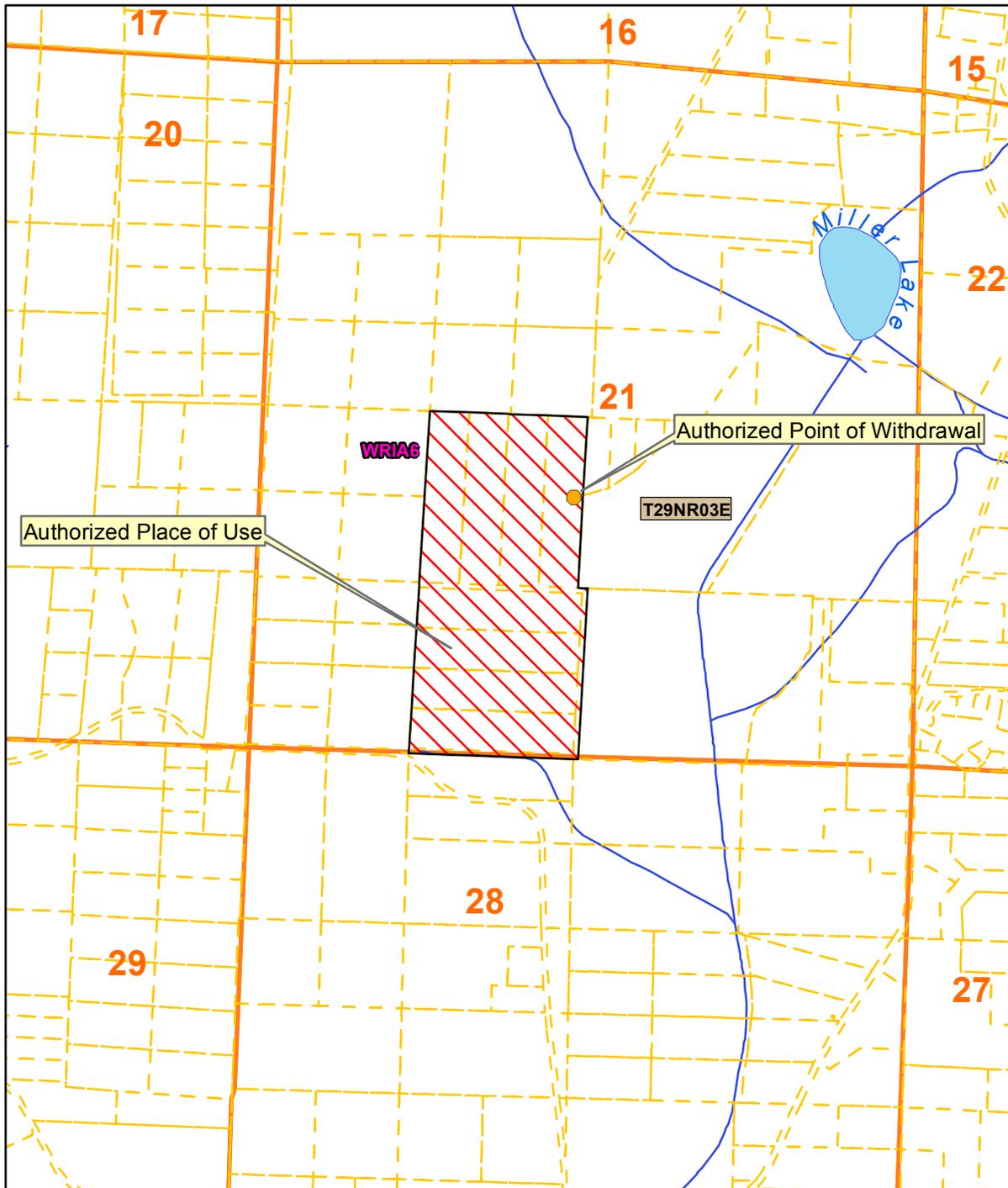
RECOMMENDATION

Based on the information presented above, the author recommends that the request to appropriate 35 gpm and 8.4 acre-feet per year be approved in the amounts described, limited, and provisioned on page 1 through 3 of this report.

Report by: _____
Jill Van Hulle, Pacific Groundwater Group Date

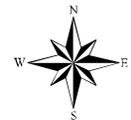
Reviewed by: _____
Noel Philip, LHG, Water Resources Program Date

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.



Legend

-  Highways
-  WRIA
-  cities
-  Parcels2007
-  Major Water Bodies
-  Marsh/wetland
-  Townships
-  Sections
-  Authorized Point of Withdrawal
-  Certificated 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.'