File NR CS2-SWC7585
WR Doc ID 6271033

DEPARTMENT OF ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION FOR WATER RIGHT CHANGE

Added or Changed Point of Withdrawal/Diversion

PRIORITY DATE	WATER RIGHT NUMBER
May 11, 1959	CS2-SWC7585

MAILING ADDRESS
MALLARD COVE MAINTENANCE & RECREATION
120 MALLARD COVE RD
PORT ANGELES 98363

SITE ADDRESS (IF DIFFERENT)

Total Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
103	GPM	4.7

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Municipal	103	0.0	GPM	4.7	0.0	01/01 - 12/31

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION	
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID	CONNECTIONS
0.0	0.0	50570L	21

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
CLALLAM	GROUNDWATER	--	18-ELWHA-DUNGENESS

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well	08-30-21-520000	BBS249	30N	08W	21	SE SW	48.07315	-123.71351

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 Water System Plan/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.

Proposed Works

Mallard Cove MRC has drilled a 6-inch diameter well drilled to a depth of 128 feet. A well pump, storage, source meter, and control equipment are awaiting installation.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	May 1, 2018	May 1, 2022

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 or cfs)

Provisions

Wells, Well Logs, and Well Construction Standards

All wells constructed in the state must 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 must be decommissioned.

All wells must 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 must 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 must 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 Southwest Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Southwest Regional Office for forms to submit your water use data.

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 Southwest Drinking Water Operations, 243 Israel Road S.E., PO Box 47823, Tumwater, WA 98504-7823, (360) 236-3030.

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 must 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 water right. 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, will 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. CS2-SWC7585, 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 Olympia, Washington, this 12th day of May 2015.

Michael J. Gallagher

Michael J. Gallagher, 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 Change of Water Right – Mallard Cove Maintenance & Recreation Commission
Water Right Control Number CS2-SWC7585
Matthew K. Rakow, Department of Ecology

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number CS2-SWC7585.

On July 31, 2014, Randy Reid, representing Mallard Cove Maintenance & Recreation Commission (Mallard Cove) filed Application for Change of Water Right CS2-SWC7585. Mallard Cove proposes to replace its existing spring sources with a newly drilled well.

CS2-SWC 7585, issued May 11, 1959, authorizes the diversion of 0.23 cubic feet per second (cfs) for domestic supply for a resort. No annual quantity limit was assigned to the water right.

Description and Purpose of Proposed Change

Table 1. Attributes of the Existing Water Right and Proposed Change

	Existing	*Proposed*
Name	Walter R. Storm	Same
Priority Date	5/11/1959	--
Change Application Date	--	07/31/2014
Source	Unnamed Springs	Well BBS249
Instantaneous Rate (cubic feet per second, cfs)	0.23	103 gpm
Annual Quantity (acre-ft per year, ac-ft/yr)	Not Listed	20.0
Purpose(s) of Use	Domestic Supply for Resort	Multiple Domestic
Period of Use	Year-round	Same
Place(s) of Use	E ½ of Gov't Lot 6, Sec.21, T.30N., R.8 W.W.M., and E ½ of W ½ of Gov't Lot 6, Sec.21, T.30N., R.8 W.W.M.	Same

T. = Township, R. = Range, Sec. = Section, W.W.M. = West of the Willamette Meridian

Table 2. Proposed Sources of Withdrawal

Source Name	*Parcel*	*Tag*	*Twp*	*Rng*	*Sec*	*QQ Q*	*Latitude*	*Longitude*
Well 1	08-30-21-520000	BBS249	30N	08W	21	SE SW	48.07315	-123.71351

Table 3. Existing Point of Diversion

Source Name	*Parcel*	*Tag*	*Twp*	*Rng*	*Sec*	*QQ Q*	*Latitude*	*Longitude*
Unnamed Springs	08-30-21-340000	N/A	30N	08W	21	SE SW	--	--

Twp = Township; Rng = Range; Sec = Section; QQ Q = Quarter-quarter of a section; Datum in NAD83/WGS84

Legal Requirements for Requested Change

The following is a list of requirements that must be met prior to authorizing the proposed change.

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 Peninsula Daily News on October 31, 2014 and November 7, 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. Notice was given to Steve Boessow and he provided a written response on January 28, 2015. Mr. Boessow stated that the DFW did not oppose the issuance of this change application.

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.

Because this application does not meet any of these conditions, it is categorically exempt from SEPA and a threshold determination is not required.

Water Resources Statutes and Case Law

RCW 90.03.380(1) states that a water right that has been put to beneficial use may be changed. The point of diversion, place of use, and purpose of use may be changed if it would not result in harm or injury to other water rights.

The Washington Supreme Court has held that Ecology, when processing an application for change to a water right, is required to make a tentative determination of extent and validity of the claim or right. This is necessary to establish whether the claim or right is eligible for change. (*R.D. Merrill v. PCHB* and *Okanogan Wilderness League v. Town of Twisp.)*

A point of diversion for a surface water right may be changed to a groundwater point of withdrawal. The authority is derived from RCW 90.03.380, RCW 90.44.020-030, RCW 90.44.100 and RCW 90.54.020(9). RCW 90.03.380(1) states that a water right that has been put to beneficial use may be changed if it would not result in detriment or injury to other water rights. Additionally, moving the point of diversion to a groundwater withdrawal requires compliance with the groundwater code (RCW 90.44), including a finding that there be no detriment to the public welfare and that the source of the existing diversion and the proposed point of withdrawal be part of the same water body.

INVESTIGATION

The material reviewed in support of this application included the following:

- The State Ground Water Codes, administrative rules, and policies
- Department of Ecology's Water Right Tracking System (WRTS) database
- Department of Ecology's Well Log Image Database
- Department of Health's SENTRY system
- Department of Natural Resources Geologic Information Portal
- Topographic and local area maps
- Notes from a site visit on November 10, 2014.
- Engineering Report for Mallard Cove MRC Water System, dated January 15, 2015
- Hydrogeologic report written by Richard Martin, licensed hydrogeologist, dated January 15, 2015

Project Location and Site Description

The Mallard Cove community is centrally located on the south shore of Lake Sutherland. Lake Sutherland is situated at the western end of the Elwha-Dungeness Water Resource Inventory Area (WRIA) 18. To the south is Mount Storm King and Baldy Ridge approximately one and one half miles away. Crescent Lake lies 5,000 feet to the west across Highway 101. Indian Creek, to the east, is the outlet of Lake Sutherland and is a tributary to the Elwha River.

The new source well lies approximately 450 feet to the south of the shore of Lake Sutherland at an elevation of about 554 feet above mean sea level. The well is the only component of the new system that has been constructed. Mallard Cove still needs to install a well pump, well head components, source meter, storage tank, water quality system, and system controls.

Intent of Proposed Change

The intent of the proposed change to Surface Water Certificate (SWC) 7585 is to change the source from a pair of springs to a new well. Mallard Cove submitted the water right change application after the Department of Health conducted a sanitary survey of their water system. The survey resulted in the Mallard Cove water system being issued a boil water order until it could develop a new source of water. The Department of Health is currently working with Mallard Cove to get their new water system up and running.

The current use of surface water from the unnamed springs will be discontinued once the new system is online. Mallard Cove will source all of its water from the new well once the switch is complete.

History of Water Use

There are no historical metering records for the Mallard Cove water system. The report of examination for SWC 7585 recommended an instantaneous diversion rate of 0.23 cfs to serve the resort and full-time residence and did not specify an annual quantity limit. SWC 7585 was issued for domestic supply of a resort. The original Mallard Cove Resort consisted of 44 rental cabin units and one full time residence. Each cabin unit was equipped with a kitchenette and full bathroom. The original water right was intended to serve a mainly transient non-residential population. The resort alternated between being open year-round and seasonally throughout it's roughly decade long operation.

The resort property was sold in the early 1970's and platted to sell off individual parcels. It was at this time that the community began evolving to include more full and part-time single-family residences and fewer transient non-residential services. This transition also included the addition of the Cahill residence to the water system. The Cahill residence is located adjacent to the Mallard Cove Community along the western boundary.

The water system serves a total of 21 connections and the community is now comprised of 13 single-family homes and four duplexes that equate to eight connections. According to Mr. Reid, there is an ongoing fluctuation of the number of full and part-time residences occupied by either the property owners or renters.

Mallard Cove's existing water right appears to be valid and in good standing. Mallard Cove's water system has been consistently diverting water for domestic supply since the issuance of SWC 7585. Because the spring source was not metered, the actual quantity of water historically used for domestic supply on annual basis under this water right is not known.

Mallard Cove is currently operating under the authorization of a Temporary Permit issued on January 15, 2015.

Proposed Use

Mallard Cove's existing water right was issued for multiple domestic purposes. However, an evaluation of the current number of connections and the number of residents currently served indicate that this water right qualifies for municipal status under RCW 90.03.015(4)(a). The statute defines municipal water supply purposes as, "...residential purposes through fifteen or more residential service connections or for providing residential use of water for a nonresidential population that is, on average, at least twenty-five people for at least sixty days a year." Ecology Policy 2030 establishes that a residential service connection is one that is occupied for more than 180 days a year. Mallard Cove only

serves eight full-time connections currently. According to the Department of Health Sanitary Survey conducted on April 15, 2014, the number of current full-time residential population is 18 and the part-time residential population is on average 14 people throughout the course of a year. These numbers indicate that a combination of at least 25 of the same residents and non-residents are being served by the Mallard Cove water system more than 60 days per year. Therefore, this water right is for municipal supply purposes providing residential use of water for a combined residential and nonresidential population that is, on average, at least 25 people for at least sixty days of year.

Mallard Cove's water system engineers, Zenovic & Associates, estimate that this system is currently using 200 gallons per day per connection for 21 connections. The daily quantity used by the water system engineers is an estimate based daily water use measurements from analogous water systems in the Port Angeles area. An average of 200 gallons per day equates to an estimated annual quantity of 4.7 acre-feet assuming full-time occupancy of each connection. This annual quantity is tentatively determined to be valid and eligible for change under this application.

Other Rights Appurtenant to the Place of Use

There are no other water rights appurtenant to the existing place of use of SWC 7585.

Hydrologic/Hydrogeologic Evaluation

Local Area Geology

The area underlain by the Mallard Cove community is mapped as Eocene marine sedimentary rocks of the Aldwell Formation. However, the well log for the new Mallard Cove well indicates that the subsurface material is comprised of landslide deposits. Landslide deposits usually comprise of an unsorted mixture of sand, gravel, slit, clay, and organic material. These deposits are mapped immediately adjacent to the east and west of the Mallard Cove community. The aerial extent of the landslide deposits have been reasonably delineated by geologic mapping, but the thickness of the deposit near Mallard Cove has not been firmly established (Washington).

Well S01 Characteristics

Table 4 contains the pertinent well construction details for Mallard Cove's new well.

Table 4. Well Construction Details

Casing Diameter (inches)	6
Well Depth (feet below ground)	125
Water Bearing Unit (interval in feet)	108-128
Static Water Level (feet below ground)	56 (10/14/2014)
Well Screen/Perforations	None – open bottom
Airtest	50 gpm for 2 hours

Pumping Tests

Richard Martin of Richard Martin Groundwater LLC was contracted to conduct pumping tests for the new well and perform hydrogeologic analysis of the data collected from the tests. Mallard Cove was issued a Preliminary Permit on November 21, 2014, authorizing Mallard Cove to conduct pumping tests of their new well.

A step-rate test was performed on November 24, 2014. The well was pumped at rates of 40, 51, 62, and 82 gallons per minute (gpm). Each step lasted for one hour and the water level in the well stabilized within several minutes for each step. The water level returned to static conditions within 10 minutes after the pump was shut off.

A constant-rate test began on December 7, 2014 at a rate of 60 gpm. The constant-rate test ran for 24 hours. Steady-state conditions in the well were reached within five minutes with a measured drawdown of 5.2 feet. Water levels in the well recovered to pre-test levels within five minutes once the pump was shut off.

Water levels were measured by a data logging pressure transducer in the near-by Falls Creek monitoring well before, during, and after the Mallard Cove constant-rate pumping test. The monitoring well was intended to be the original production well, but a failed pump installation occurred right after it was drilled. A second well was drilled a few feet over and serves as the main production well for the Falls Creek water system. The Falls Creek wells are located approximately 1,400 feet to the west and completed in the same material as the Mallard Cove well. No induced drawdown of water levels were observed in the Falls Creek well during the Mallard Cove constant-rate pumping test.

Aquifer Characteristics

Richard Martin could not calculate standard hydrogeologic properties of the gravel aquifer due to the following reasons:

- The Falls Creek observation well did not record any pumping signatures from the Mallard Cove well during the constant-rate pumping test
- The Mallard Creek well was observed to have rapid drawdown shortly after the start of the constant-rate test and subsequent quick onset of steady-state conditions
- The drawdown plot of water level response described above does not match typical drawdown curves used to estimate aquifer transmissivity and storativity
- All or a portion of the test was conducted during the occurrence of a recharge event, given that water levels in the Mallard Cove and Falls Creek wells rose past pre-test static water levels during the recovery period

Richard Martin provided the following explanations why so little drawdown occurred during the constant-rate pumping test:

- The pumping rate of 60 gpm did not adequately stress the aquifer to observe a drawdown response that can be readily evaluated to understand the behavior of the aquifer,
- The aquifer is unconfined and the steady-state drawdown represents gravity drainage of the aquifer, or
- A rapidly expanding cone of depression upon initiation of pumping intersected a recharge boundary, such as Lake Sutherland.

Richard Martin recommends Mallard Cove set the pumping rate for the new well between 50 to 60 gallons per minute. He concludes that the Falls Creek and Mallard Cove wells are most likely completed in the same aquifer but there is no measurable effect on the Falls Creek well by the pumping of the Mallard Creek well. In his opinion, this is most likely due a highly transmissive aquifer, the overall

distance between the two wells, and the potential for Lake Sutherland to be a source of reach to the aquifer system. I concur with Richard Martins recommendation and conclusions.

Impairment Considerations

Impacts to Existing Water Users

WAC 173-150-060 specifies that only impacts to "qualifying withdrawal facilities" fit the legal definition of impairment. This definition means wells can be affected as long they are not impaired. Qualifying withdrawal facilities are wells completed in the same aquifer as the new point of withdrawal. The well must span the aquifer's entire saturated thickness and the pump elevation must allow variation in seasonal water levels.

It is not likely withdrawals from new Mallard Cove well will affect area users. Water levels in the Falls Creek well did not show any response to pumping of the Mallard Cove well during the constant rate pumping test. This is most likely due to positive recharge of the aquifer by Lake Sutherland diminishing the magnitude of the Mallard Cove well's area of influence.

Impacts to Surface Water
This change will not affect regulated surface water in the WRIA. Steve Boessow (DFW) stated in his January 28, 2015 letter that the DFW does not oppose this application. His opinion is that switching from surface water to groundwater is considered a moderate benefit to fish in Lake Sutherland.

Public Interest Considerations

Approving CS2-SWC7585 is not detrimental to the public interest and consistent with Chapter 90.54 RCW and WAC 173-526. Furthermore, approval of this change application is consistent with the recommendations of the adopted Elwha-Dungeness WRIA 18 Watershed Plan.

Consideration of Protests and Comments

No protests were filed against this application.

Conclusions

- The proposed change or amendment will not impair existing rights.
- The underlying water right will not be enlarged.

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:

- 103 gpm
- 4.7 acre-feet per year
- Municipal Supply

Point of Withdrawal

SE ¼, SW ¼, Section 21, Township 30 North, Range 08 W.W.M.

Place of Use

As described on Page 1 of this Report of Examination.

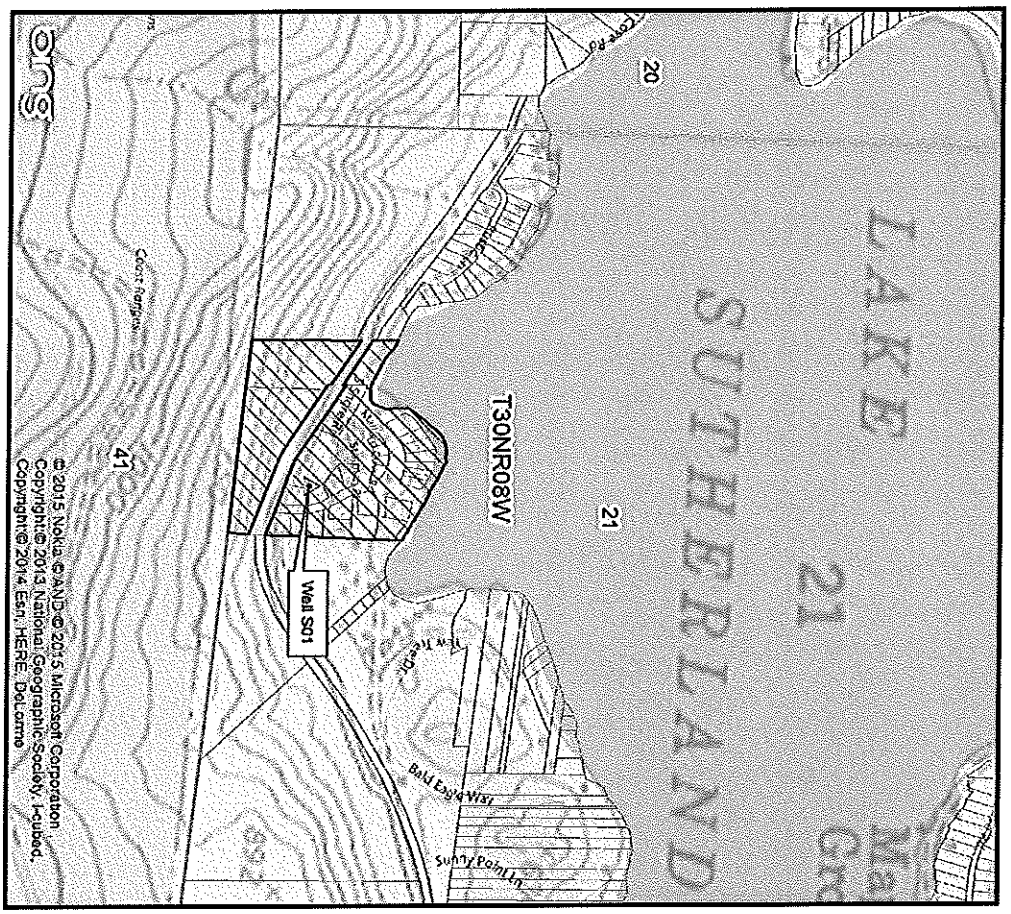
Matt Rakow 5-12-2015

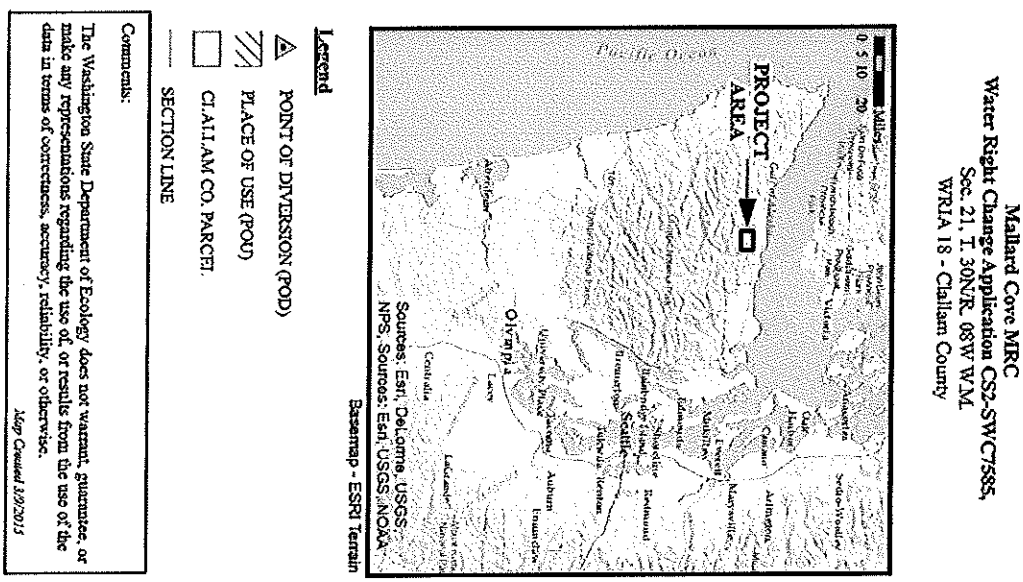
Matthew K. Rakow *Date*

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.

Selected References

Washington Interactive Geologic Map. Washington Department of Natural Resources. *n.d.* Web. Feb. 11 2015.





Mallard Cove MRC
Water Right Change Application CS2-SWC7585,
Sec. 21, T. 30N/R. 08W W.M.
WRIA 18 - Clallam County

Legend

- POINT OF DIVERSION (POD)
- PLACE OF USE (POU)
- CLALLAM CO. PARCEL
- SECTION LINE

Comments:

The Washington State Department of Ecology does not warrant, guarantee, or make any representations regarding the use of, or results from the use of the data in terms of correctness, accuracy, reliability, or otherwise.

Map Created 3/9/2015