STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

APPROVED
REPORT OF EXAMINATION
To Appropriate Public Waters of the State of Washington

PRIORITY DATE	APPLICATION NO.	PERMIT NO.
July 31, 1978	S1-23175A	

NAME		
Olga Water Users Inc.		
MAILING ADDRESS	CITY/STATE	ZIP CODE
P.O. Box 44	Olga, WA	98279

PUBLIC WATERS TO BE APPROPRIATED

SOURCE	
Cascade Creek	
MAXIMUM CUBIC FEET PER SECOND (cfs)	MAXIMUM ACRE FEET PER YEAR (af/yr)
*	34**
TYPE OF USE & PERIOD OF USE	
Municipal supply – year-round	

* No additional instantaneous rate was requested or granted under this authorization. Olga Water Users (OWU) is authorized to use up to 0.56 cfs under the existing authority of Volume XI, of Adjudicated Water Rights Certificates, at page 86 (aka S1-*62086JWRIS).

** This is in addition (additive) to the 94 acre-feet per year currently authorized by Volume XI of Adjudicated Water Rights Certificates, at page 86, for a system total of 128 acre-feet per year.

LOCATION OF POINT OF DIVERSION

APPROXIMATE LOCATION OF POINT OF DIVERSION

191 feet north and 373 feet east of the southwest corner of Section 33

SOURCE NAME	PARCEL #	LATITUDE	LONGITUDE	QTR/QTR	SECTION	TOWNSHIP	RANGE
Olga diversion	172811001000	48.64573	-122.83432	SW1/4 SW1/4	33	37N	1W

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

Municipal service area of Olga Water Users within Sections 8, 9, and 16, Township 37 North, Range 1 West, San Juan County, Washington

DESCRIPTION OF WATER WORKS

Water is diverted just upstream of OWU's four foot high weir on Cascade Creek, where it is pre-filtered, then sent by gravity through a 6 inch diameter PVC pipeline to two slow sand filters, each of which is capable of processing at a continuous flow rate of 60 gpm. After filtering, the water is chlorinated, and stored for use. Storage consists of two tanks with 147,300 gallons of total water storage. Most of the storage (up to 127,000 gallons) is in a concrete "Mt. Baker Silo" at an elevation of 320 feet above mean sea level.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
Begun	Completed	December 31, 2031

PROVISIONS

1. Meter Installation
An approved measuring device shall be installed and maintained for the source authorized by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173. See http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html

2. Metering Rule Description And Petition Info
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. Installation, operation and maintenance requirements are enclosed as a document titled "Water Measurement Device Installation and Operation Requirements".
See http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html

3. Record Weekly, Report Annual Totals
Water use data shall be recorded weekly. The maximum rate of diversion and the annual total volume shall be submitted to the Department of Ecology by January 31st of each calendar year.

4. Electronic Reporting
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.

5. Authority To Access Project
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, point of diversion, measuring devices, and associated distribution systems for compliance with water law.

6. Easement Right-Of-Way
The water source and/or water transmission facilities are not wholly located upon land owned by the applicant. Issuance of a water right by this department does not convey a right of access to, or other right to use, land which the applicant does not legally possess. Obtaining such a right is a private matter between the applicant and owner of that land.

7. No Impairment of Existing Rights
This authorization to make use of public waters of the state is subject to existing rights.

8. Conservation
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.

9. 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, system instantaneous capacity, annual volume, beneficial use, place of use, and satisfaction of provisions.

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 concur with the investigator that water is available from the source in question, there will be no impairment of existing rights, the purpose of use is beneficial, and there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. S1-23175A, subject to existing rights and the provisions listed above.

You have a right to appeal this action to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this document. 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 this document:

File your appeal and a copy of this document 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 document on Ecology in paper form - by mail or in person. (See addresses below.) Email 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 Pollution Control Hearings Board Environmental Hearings Office 1111 Israel Road SW, Suite 301 Tumwater, WA 98501	Department of Ecology Attn: Appeals Processing Desk P.O. Box 47608 Olympia, WA 98504-7608 Pollution Control Hearings Board P.O. Box 40903 Olympia, WA 98504-0903

Please also send a copy of your appeal to:
Jacqueline Klug
Department of Ecology
Northwest Regional Office
3190 160th Avenue 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 14th day of July, 2011.

Jacqueline Klug
Section Manager
Water Resources Program
Northwest Regional Office

INVESTIGATOR'S REPORT
by Buck Smith, LG, LHG - Senior Hydrogeologist
Water Right Application No. S1-23175A

BACKGROUND

The purpose of this report is to address an application for new surface water rights to serve Olga Water Users Inc. (OWU) on Orcas Island in San Juan County. OWU is a Group A private non-profit municipal water system that serves drinking water to the hamlet of Olga and the surrounding area. OWU was formed in 1936 and has been in continuous operation ever since. The OWU service area is located to the south of Moran State Park.

OWU's request is for an additional 34 acre-feet per year (af/yr) of annual volume from Cascade Creek. The requested annual volume will provide OWU with enough water for full build-out of their service area.

Public notice

Public notice of the application was published in the *Island Record* on May 23 and 30, 1979. No protests were received during the statutory 30 day protest period (RCW 90.03.280).

State Environmental Policy Act

In accordance with RCW 43.21C, WAC 197-11-305, and WAC 197-11-800(4), it was determined the subject application is exempt from the State Environmental Policy Act (SEPA) because the instantaneous diversion rate is less than 1 cubic foot per second. In the case of this application, no additional instantaneous rate has been requested.

Legal determinations

Chapter 90.03 RCW authorizes the appropriation of public water for beneficial use and describes the process for obtaining water rights. Laws governing the water right permitting process are contained in RCW 90.03.250 through 90.03.340. In accordance with RCW 90.03.290, an investigation must be conducted and determinations must be made on the following four criteria in order for an application for water rights to be approved:

- Water must be available
- There must be no impairment of existing rights
- The water use must be beneficial
- The water use must not be detrimental to the public interest

INVESTIGATION

In considering this application, my investigation included, but was not limited to, research and/or review of:

- Information obtained from my site visits and numerous conversations with Sandy Taylor, OWU president
- A database search of existing water rights in the area
- Stream flow data for Cascade Creek collected over numerous years
- The OWU Internet site (http://www.olgawater.com/)
- The Moran State Park Internet site (http://www.parks.wa.gov/parks/?selectedpark=Moran&subject=all)
- Washington Department of Fish & Wildlife correspondence
- The Multi-Purpose Surface Water Storage Assessment (WRIA 2), Montgomery Water Group (April 2004)
- The East Orcas Water Supply Report and Recommendations (October 2005)
- The Rosario Water Budget Supply Analysis, RH2 Engineering (June 2005)

As stated above, the subject water right request is for an additional annual volume of 34 af/yr. No additional instantaneous rate is being requested. OWU's original request in 1978 was for an additional instantaneous rate of 0.8 cfs and for an additional annual volume of 188 af/yr. Because OWU already holds the rights to 0.56 cfs and 94 af/yr (see the next page for details), OWU president Sandy Taylor revised the original request downward to what will actually be needed (the existing 0.56 cfs and a total of 128 af/yr) for full build-out of the service area.

Site visits

I have made numerous visits to Cascade Creek. Cascade Creek is part of the larger Mountain Lake-Cascade Creek watershed. These visits have been made in regard to streamflow measuring, compliance work, site visits for other applications within the watershed, and a number of meetings with OWU and the operators of the Rosario, Doe Bay

Water Users Association (DBWUA), and Moran State Park water systems. As such, I am very familiar with the operations of the OWU system and with the other systems in the watershed.

Mountain Lake-Cascade Creek watershed description

The Mountain Lake-Cascade Creek watershed is approximately five square miles (3,072 acres) in area. Mountain Lake itself is a 198 acre (8,800 acre-foot) lake located at the southeastern base of Mount Constitution (2,409 feet in elevation), within Moran State Park. The lake is fed by groundwater discharge, small streams, snow melt, and rainfall. The area draining directly into Mountain Lake is approximately 1,425 acres. This area receives an average of 5,200 acre-feet of precipitation per year. Of this, an estimated 3,000 acre-feet recharges Mountain Lake each year. Below Mountain Lake and above the OWU diversion is an area of approximately 700 acres. This area receives approximately 2,500 acre-feet of precipitation, with approximately 1,500 acre-feet of run-off each year. Therefore, total run-off above the OWU diversion averages approximately 4,500 acre-feet per year.

The water level in Mountain Lake is controlled by two spillway bays, where 4" x 6" stop logs are placed in the spillways (each spring) to retain water for the summer recreation season and for flow release into Cascade Creek. These stop logs are removed in the winter to prevent flooding of park facilities along the lakeshore. The outlet of water through the dam is accomplished by a gate valve (always open) that leads to a 12" outlet pipe which splits into two 8 inch pipes with gate valves. One of the 8 inch pipes leads to the DBWUA system (see details below). The other pipe is the "headwaters" of Cascade Creek. As such, water enters into Cascade Creek from the outlet pipe (year-round) and from the spillways (wet season only). From this point, Cascade Creek flows west (past the OWU diversion works) and then south for approximately 3 miles before it enters into Buck Bay.

History of water use in the watershed

Records show that water from the Mountain Lake-Cascade Creek watershed was used to operate a barrel, box, and shingle mill adjacent to the creek as early as 1884. By about 1897 a diversion was completed to take water from Cascade Creek to Cascade Lake for the operation of a lumber mill at Cascade Bay. In 1904, Robert Moran (shipbuilder and former mayor of Seattle) bought the mill properties, diversion works, and water rights for use at his private estate (Moran called it Rosario). In 1905, the original Mountain Lake dam was constructed by Moran (it was upgraded in 1992). In the years following dam construction, OWU, Moran State Park[1], and DBWUA also began to use water from the watershed. The multiple uses of water later led to disputes over priority and allowable rates of diversion. These disputes were resolved in the Mountain Lake-Cascade Creek Adjudication (County Cause No. 2448) in 1970. Currently, a total of 1487.4 af/yr has been allocated to the multiple users within the watershed (details are in the next section).

Streamflow through the Mountain Lake dam outlet pipe to Cascade Creek is regulated by Moran State Park staff (currently checked at least weekly by Gary Sale), in cooperation with OWU, DBWUA, the owners of the Rosario diversion, and the Department of Ecology.

Existing surface water rights in the watershed (from upstream to downstream)

The furthest-most upstream diversion in the watershed takes water from a tributary of Mountain Lake. The water right for this diversion is held by the Washington State Parks & Recreation Commission for use at Moran State Park. It is as follows.

- Volume XI, of Adjudicated Water Right Certificates, at page 87. The priority date of this right is 1920. The point of diversion is within the N½ NE¼ of Section 33, Township 37 North, Range 1 West. This right is for 0.02 cfs, 8.4 af/yr for park facilities, from an unnamed stream, tributary to Mountain Lake.

The next set of rights is for the diversion of water directly from Mountain Lake. Mountain Lake is impounded by Mountain Lake Dam (a combination earth fill-concrete dam). Its controlling works regulate outflow into the natural drainage of Cascade Creek. The controlling works are also the point of diversion for the DBWUA. DBWUA has the following existing rights.

- Volume XI, of Adjudicated Water Right Certificates, at page 88. The priority date of this right is November 3, 1945. The point of diversion is within the S½ NW¼ SW¼ of Section 34, Township 37 North, Range 1 West. This right is for 0.05 cfs, 12 af/yr, for municipal water supply from Mountain Lake.

[1] *In 1920, Robert Moran donated the original 2,600 acres of Moran State Park to the citizens of Washington. By 1928, he had added another thousand acres to his original gift. The park has since been enlarged by various means of acquisition. By 1991, it had grown to its present 5,175.51 acres.*

- Volume XI, of Adjudicated Water Right Certificates, at page 89. The priority date of this right is August 22, 1946. The point of diversion is within the S½ NW¼ SW¼ of Section 34, Township 37 North, Range 1 West. This right is for 0.35 cfs, 82 af/yr, for municipal water supply from Mountain Lake.

- Surface water certificate S1-22996C. The priority date of this right is November 2, 1977. The point of diversion is within the NW¼ SW¼ of Section 34, Township 37 North, Range 1 West. This right is for 0.50 cfs, 87 af/yr, for municipal water supply from Mountain Lake.

From the Mountain Lake Dam, Cascade Creek flows for approximately 3/4 mile to the OWU's point of diversion. OWU has the following existing right.

- Volume XI, of Adjudicated Water Right Certificates, at page 86. The priority date of this right is 1908. The point of diversion is within the SW¼ SW¼ of Section 33, Township 37 North, Range 1 West. This right is for 0.56 cfs, 94 af/yr, for municipal water supply from Cascade Creek.

A few hundred feet downstream of the OWU diversion is the "Rosario" diversion (currently operated by Washington Water Service Company). The original water right for this diversion has been divided into two portions (Record A and Record B). The Record A portion authorizes Cascade Creek water to be diverted to the Cascade Lake watershed for hydropower and municipal purposes. The diversion facility consists of a 3 foot high dam, controlling works, pipeline, and canal to Cascade Lake. The Record B portion is owned by the State of Washington (Department of Ecology) as a trust water right for instream flow purposes in Cascade Creek. The records are as follows.

- Volume XI, of Adjudicated Water Right Certificates, at page 85 (Record A). The priority date of this right is 1884. The point of diversion is within the NE¼ of Section 5, Township 36N, Range 1W. This right is for the diversion of up to 974.1 af/yr for hydroelectric power and 124 af/yr for municipal supply, for a total of 1098.1 af/yr for both purposes of use. Of the 124 af/yr for municipal supply, 90 af/yr is owned by Orcas Water Holdings, 34 af/yr is owned by Washington Water Service Company. The authorized instantaneous diversion rates (in cfs) are:
  - 3.0 - January, November, December
  - 2.0 - February, March
  - 1.5 - October
  - 1.0 - April, May
  - 0.75 - June
  - 0.50 - September
  - 0.25 - July, August

- Volume XI, of Adjudicated Water Right Certificates, at page 85 (Record B). The priority date for this right is 1884. This right is subordinate in priority to Record A. This right is for 105.9 af/yr for permanent instream flow purposes, June 1-October 31 of each year. The protected instream flow reach is from the point of diversion for Record A, downstream to the mouth of Cascade Creek. The protected instream flow rates (in cfs) are:
  - 0.25 - June, July, August
  - 0.50 - September, October

Below the Rosario diversion, Cascade Creek meanders for approximately two more miles to where it discharges into Buck Bay.

Land ownership of the OWU point of diversion

The OWU diversion dam and pipeline corridor are allowed in Moran State Park through an easement agreement with the Washington State Parks and Recreation Commission. This easement agreement is granted in a Utility License that was recorded with the San Juan County auditor on March 18, 1991.

OWU's current number of connections and future needs

OWU's most recent (3/21/2011) Water Facilities Inventory (WFI) Form submitted to the Washington State Department of Health Office of Drinking Water lists OWU's current residential population as 276. The WFI form lists OWU's total calculated number of connections as 130 and the total number of approved connections as 165.

Sandy Taylor, OWU president, anticipates a total of 338 connections at full build-out of the OWU system. This includes 310 connections within OWU's five-year planning area and an additional 28 connections within OWU's twenty-year planning area. Annual water use in 2006 was approximately 0.5 af/yr per connection, but the recent replacement of the OWU above-ground raw water transmission line has significantly reduced leakage. The subject

request to bring the system total annual volume up to 128 af/yr for 338 projected connections is equivalent to 0.38 af/yr per connection. This is still somewhat higher than average for San Juan County, but OWU is committed to finding and repairing other leaks and making additional improvements to increase efficiency. So hopefully through further system improvements, the actual annual water need at the time of certification of this right will be less than the 34 af/yr requested. As a municipal water supplier, conservation of the resource is required (see provisions section).

Fish resources in Cascade Creek

Through the years a number of visits to the watershed have been made by fish biologists from the Washington Department of Fish & Wildlife (WDFW). These visits have confirmed both native cutthroat trout and non-native brook trout utilize Cascade Creek. In addition, sea-run cutthroat, coho, and chum salmon utilize the 0.2 mile reach from the mouth of the creek at Buck Bay up to the first impassible waterfall.

DETERMINATIONS

Water Availability

Physical Availability

Physical availability of water in Cascade Creek is determined by: 1) timing and rate of precipitation in the watershed, 2) the amount of precipitation captured and stored in Mountain Lake, and 3) the timing and rate of release through the Mountain Lake outlet valve and/or dam stop log management. The existing right holders (State Parks, DBWUA, OWU, "Rosario", and Ecology) in the watershed all work cooperatively to manage the resource. Water levels in Mountain Lake and streamflow levels in Cascade Creek are regulated by State Park personnel to ensure proper releases for downstream right holders. Because OWU has not requested any additional instantaneous supply, I do not anticipate any physical availability issues to arise.

Legal Availability

There are currently no regulatory closures or legal restrictions affecting water availability from Cascade Creek. However, personnel at WDFW have requested no new consumptive diversions be allowed from Cascade Creek in order to protect the fishery. The subject request is not for an additional instantaneous diversion. The request here is only for additional annual volume. The instantaneous "hit" on the creek will not be increased over the current authorized level. In addition, the recent (2009) trust water right acquisition by Ecology for instream purposes will ensure dry season flow in Cascade Creek. Prior to this acquisition, the operators of the Rosario system legally appropriated all of the typical dry season flow.

Impairment

Because the existing OWU right is junior in priority to the downstream Rosario water right and the State's trust water right, OWU must currently ensure these downstream rights are not impaired. Approval of the subject request will not change that situation. In fact, the subject request will be inferior in priority to all currently existing Mountain Lake-Cascade Creek rights and may be subject to regulation in times of water shortage.

Beneficial Use

Water use for municipal supply is considered to be beneficial under RCW 90.54.020(1). The volume of water requested is reasonable for the proposed purpose of use.

Public Interest

No potential for detriment to the public interest could be identified during the investigation of this application.

RECOMMENDATION

Based on the above investigation and determinations, I recommend the subject application be approved, within the limitations listed below, and subject to the provisions beginning on page 1.

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:

- For municipal supply

- 34 acre-feet per year (additive)

Point of Diversion

SW1/4 SW1/4 of Section 33, Township 37 North, Range 1 West, W.M.

Place of Use

Municipal service area of Olga Water Users within Sections 8, 9, and 16, Township 37 North, Range 1 West, San Juan County, Washington

Report by: Buck Smith
Buck Smith, LG, LHG

July 12, 2011
Date

State of Washington
Hydrogeologist
1479
Licensed Geologist

J. R. "BUCK" SMITH

Licensed Geologist/Hydrogeologist No. 1479

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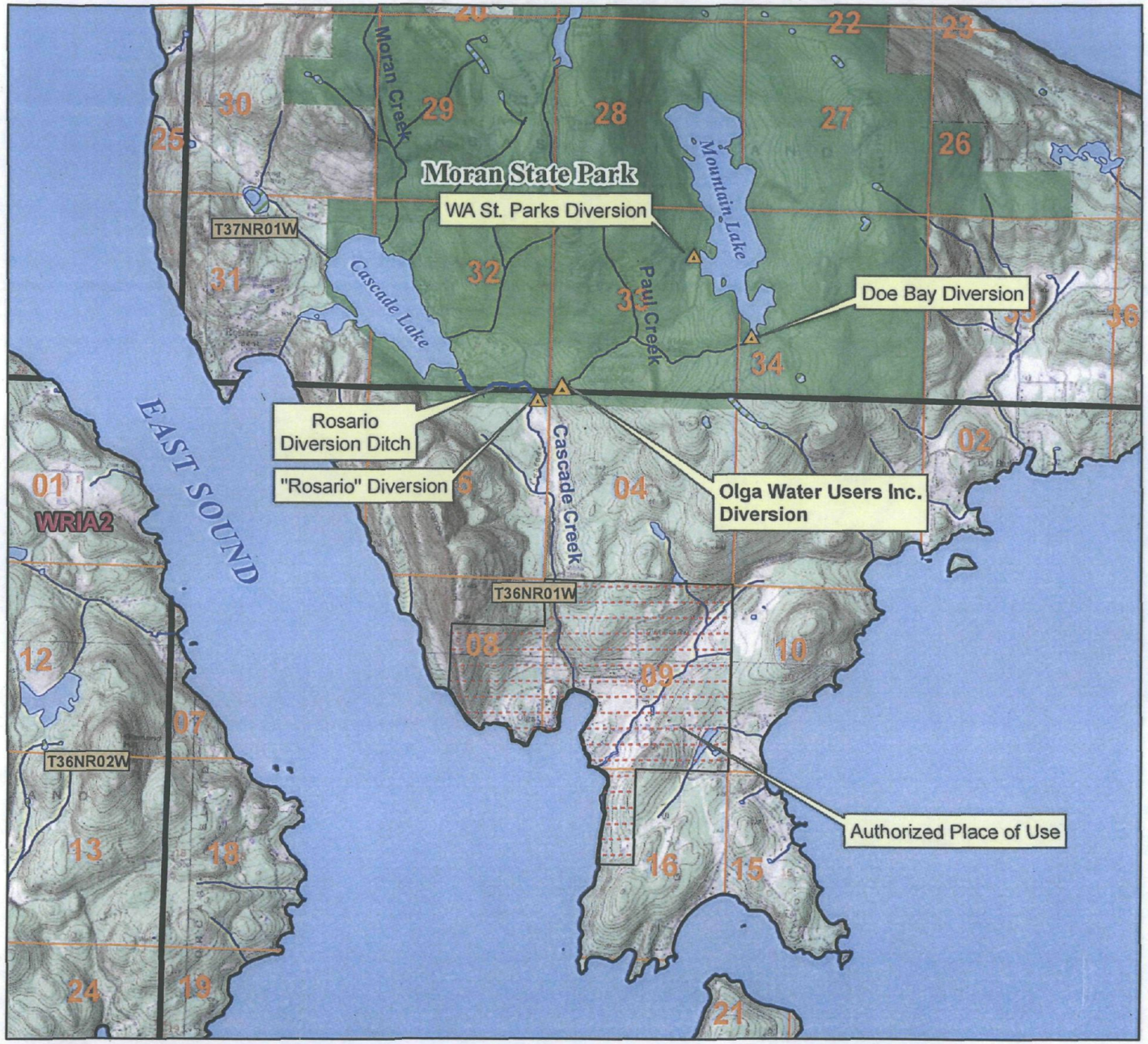
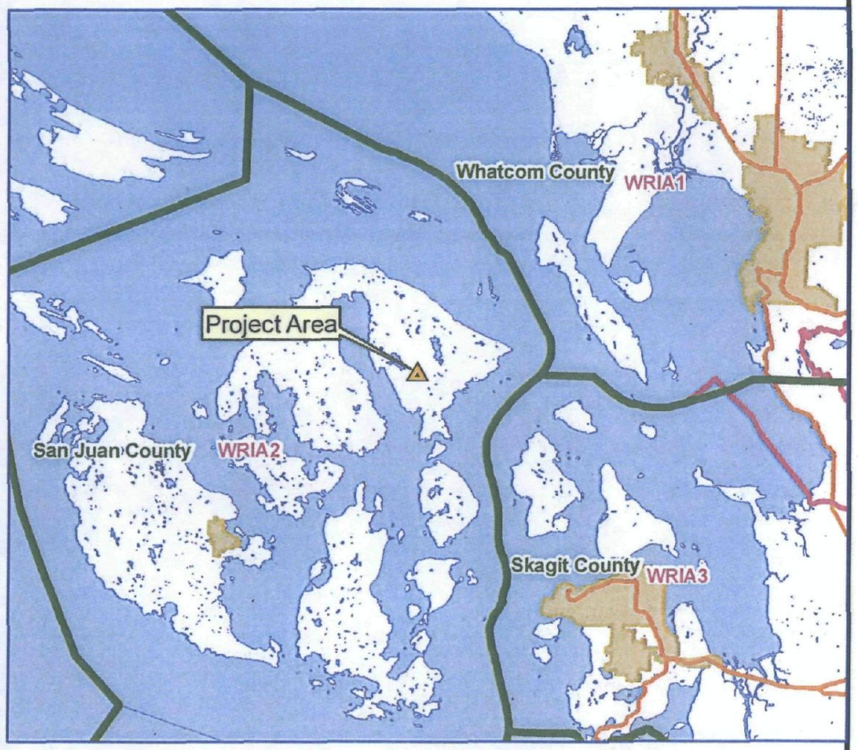
Olga Water Users Inc.
Water Right Number S1-23175
Sec.33, T 37N, R 01W W.M.
WRIA 2 - San Juan County

DEPARTMENT OF ECOLOGY
State of Washington





Legend

- County
- WRIA
- Highways
- Townships
- cities
- Sections
- Authorized Point of Diversion
- 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