

State of Washington REPORT OF EXAMINATION FOR WATER RIGHT APPLICATION

PRIORITY DATE
9/23/2010

WATER RIGHT NUMBER
S1-28673

MAILING AND SITE ADDRESS
MITCHELL BAY FARM
1071 MITCHELL BAY ROAD
FRIDAY HARBOR WA 98250

Quantity Authorized for Diversion

| DIVERSION RATE | UNITS | ANNUAL QUANTITY (AF/YR) |
|----------------|-------|-------------------------|
| 0.178 | CFS | 1.80 |

Purpose

| PURPOSE | DIVERSION RATE | | UNITS | ANNUAL QUANTITY (AF/YR) | | PERIOD OF USE (mm/dd) |
|------------|----------------|--------------|-------|-------------------------|--------------|-----------------------|
| | ADDITIVE | NON-ADDITIVE | | ADDITIVE | NON-ADDITIVE | |
| Irrigation | 0.178 | | CFS | 1.80 | | 04/01 - 10/31 |

IRRIGATED ACRES

| ADDITIVE | NON-ADDITIVE |
|----------|--------------|
| 1 | 0 |

Source Location

| COUNTY | WATERBODY | TRIBUTARY TO | WATER RESOURCE INVENTORY AREA |
|----------|--------------|--------------|-------------------------------|
| SAN JUAN | UNNAMED POND | | 2-SAN JUAN |

| SOURCE FACILITY/DEVICE | PARCEL | WELL TAG | TWP | RNG | SEC | QQ Q | LATITUDE | LONGITUDE |
|------------------------|-----------|----------------|-----|-----|-----|-------|-----------|------------|
| UNNAMED POND | 450212001 | Not Applicable | 35N | 04W | 02 | NW NE | N 48.5650 | 123.1580 W |
| UNNAMED POND | 450212001 | Not Applicable | 35N | 04W | 02 | NW NE | N 48.5646 | 123.1582 W |

Datum: NAD83/WGS84

Place of Use (See Attachment 1)

PARCELS (NOT LISTED FOR SERVICE AREAS)

450212001

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

NW¼ NE¼ of Section 2, Township 35 North, Range 4 West (see Attachment 2 for full legal description)

Proposed Works

This water right application is for the irrigation of one acre of garden and orchard. The source is an unnamed pond on northwestern San Juan Island. A Franklin Electric 1½ HP pump and a Shur-Flo solar-powered pump will be used with a combination of drip irrigation and a sprinkler system.

Development Schedule

| BEGIN PROJECT | COMPLETE PROJECT | PUT WATER TO FULL USE |
|---------------|------------------|-----------------------|
| Already Begun | May 31, 2014 | December 31, 2018 |

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 diversion (cfs) |

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.

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.

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.

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. S1-28673, 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).

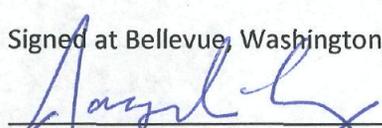
To appeal you must do the following within 30 days of the date of receipt of the Order.

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 8 day of July, 2013.



Jacqueline Klug, 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 -- Mitchell Bay Farm

Water Right Control Number S1-28673

Ria Berns, Department of Ecology

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number S1-28673, submitted to Ecology on September 23, 2010.

Bruce and Colleen Howe-Gregory, owners of Mitchell Bay Farm, applied for a water right to appropriate water from an unnamed pond on their property. The purpose of use is irrigation of approximately one acre of land during the irrigation season, from April 1 – October 31. Mitchell Bay Farm produces a variety of crops for personal use and for commercial sale. Their man-made pond is fed by rainwater, surface runoff, and shallow groundwater discharge. The pond has an overflow channel that discharges into a ditch alongside Mitchell Bay Road. The proposed place of use and point of diversion are located within the NW¼ NE¼ of Section 2, Township 35 North, Range 4 West.

The seasonal water diversions are fully developed and include two pumps, a water distribution system, several lines of drip irrigation and sprinklers. This report describes the proposed project and investigates potential impairments.

Table 1. Summary of Requested Water Right

| | |
|-----------------------------|-------------------|
| Applicant Name: | Mitchell Bay Farm |
| Date of Application: | 9/23/2010 |
| Legal Place of Use | See Attachment 2 |

| County | Waterbody | Tributary To | WRIA |
|----------|--------------|--------------|------------|
| San Juan | Unnamed Pond | N/A | 2-San Juan |

| Purpose | Rate | Unit | Ac-ft/yr | Begin Season | End Season |
|------------|-------|------|----------|--------------|------------|
| Irrigation | 0.178 | CFS | 1.80 | 04/01 | 10/31 |

| Source Name | Parcel | Well Tag | Twp | Rng | Sec | QQ Q | Latitude | Longitude |
|--------------|-----------|----------|-----|-----|-----|-------|-----------|------------|
| Unnamed Pond | 450212001 | N/A | 35N | 04W | 02 | NW NE | N 48.5650 | 123.1580 W |
| Unnamed Pond | 450212001 | N/A | 35N | 04W | 02 | NW NE | N 48.5646 | 123.1582 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; Datum: NAD83/WGS84.

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 *Journal of the San Juan Islands* on December 29, 2010 and January 5, 2011.

Consultation with the Department of Fish and Wildlife

The Department must give notice to the Washington Department of Fish and Wildlife (WDFW) of applications to divert water. On April 5, 2013, WDFW submitted comments on this proposed appropriation of surface water. Pursuant to RCW 77.57.020, WDFW found no potential impacts to fish and wildlife and therefore does not oppose this application. This conclusion is based on the fact that this pond has no recognized surface connections to any nearby fish bearing streams and likely discharges into saltwater. Therefore, there would be no measurable fish impacts.

State Environmental Policy Act (SEPA)

A surface water right application is subject to a SEPA threshold determination (i.e., an evaluation of whether there are likely to be significant adverse environmental impacts) if the application is greater than 1 cfs. However, if the project is for agricultural irrigation, the threshold is increased to 50 cfs, so long as the irrigation project will not receive public subsidies. Because this application does not meet any of these conditions, it is categorically exempt from SEPA and a threshold determination is not required.

INVESTIGATION

Mitchell Bay Farm submitted an application for appropriation of surface water from an unnamed pond on September 23, 2010. The purpose of use is irrigation of approximately an acre of combined personal and commercial garden and orchard. There are two proposed points of diversion, downstream of all water rights and water right claims in the sub-basin. The proposed place of use and points of diversion are located within the NW¼ NE¼ of Section 2, Township 35 N, Range 4 West.

Project Description

On April 17, 2013, Jerry Liszak (Senior Hydrogeologist, Department of Ecology) and I met the Mitchell Bay Farm applicants, Colleen and Bruce Howe-Gregory, at their farm. The project information described below was gathered during the site visit and supplemented by follow-up exchanges with the applicants. During the site visit, we confirmed the intended purpose of use, toured the farm and source water, and examined the existing irrigation system.

Proposed Project

Mitchell Bay Farm applied for a water right permit to withdraw surface water from an unnamed pond on their property. The purpose of use is the irrigation of approximately one acre of non-contiguous garden and orchard. Crops are listed in Table 2. The orchard and garden will be irrigated April 1 – October 31, as needed, using a combination of drip irrigation and sprinklers. The garden and orchard produce food for personal consumption and for commercial sale. The ornamental garden functions as a small nursery. The nursery, orchard, and garden are fully developed.

Table 2. Mitchell Bay Farm Irrigable Crops

| <i>Crop Type</i> | <i>Area Covered</i> |
|------------------------|--|
| Asian Pear | 5 Rows, 85 feet each |
| Hardy Kiwi | 3 Rows, 75 ft each |
| Fuzzy Kiwi | 3 Rows, 75 ft each |
| Hazelnut (Filbert) | ~6780 ft ² , 28 trees total |
| Raspberry | 2 Rows, 57 feet each |
| Marionberry | 2 Rows, 57 feet each |
| Mixed Vegetable Garden | 3315 ft ² |
| Ornamental Garden | 7650 ft ² |
| Total | ~ 1 acre |

Source Water

The Mitchell Bay Farm pond is located up-gradient and south of Mitchell Bay, a narrow salt water bay on the northwest side of San Juan Island. The pond was constructed in the mid-1970s with funding from the Natural Resources Conservation Service, formerly the Soil Conservation Service. Rainwater, surface water runoff, and shallow groundwater discharge recharge the pond. A single outlet directs overflow to a ditch adjacent to Mitchell Bay Road. The ditch water seasonally empties into Mitchell Bay. The pond is 13 feet deep during the rainy season and decreases to 9.5 feet during the dry season.

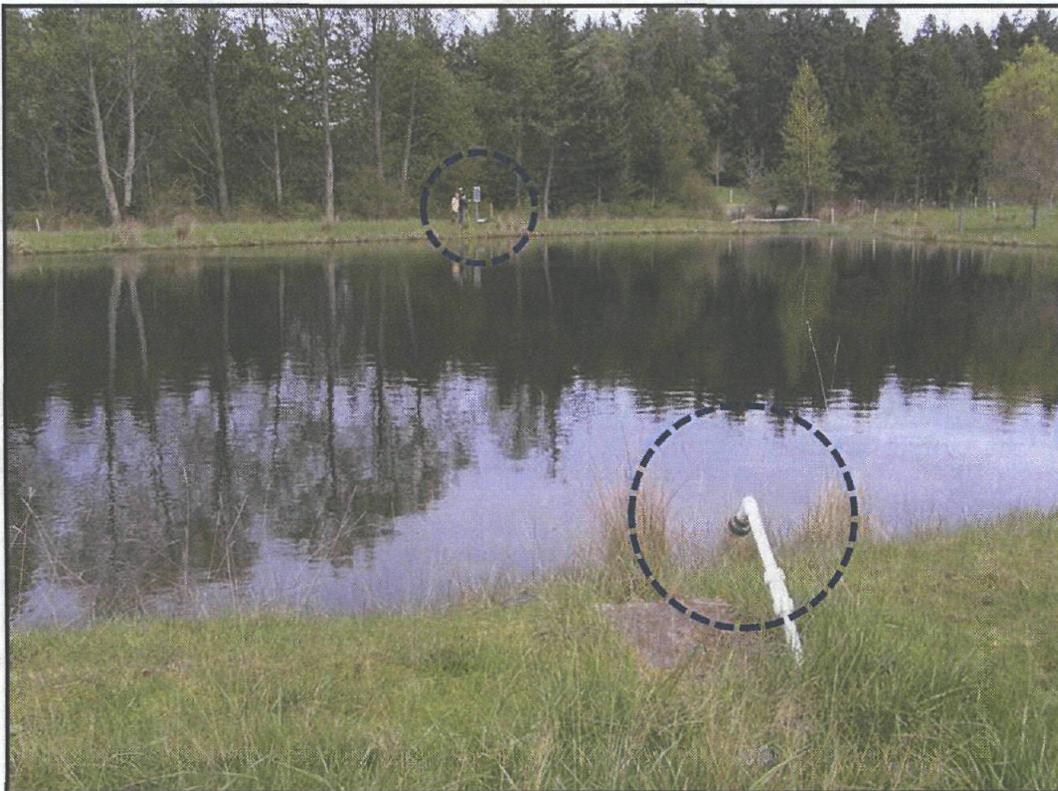


Photo 1. Mitchell Bay Farm Pond with Diversion Points Circled

Irrigation Works

The existing, seasonally-used irrigation system includes the following components:

- Two pumps attached to screened PVC intake pipes, including a:
 - Franklin Electric 1½ hp pump with an estimated 77 gpm pumping rate
 - .45 psi solar pump with an estimated 3 gpm pumping rate
- 1-2" PVC distribution lines connecting the pump to several stand pipes on the property
- Three irrigation systems are used:
 - Drip irrigation for kiwi fruit (hardy and fuzzy), Asian pears, berries, and hazelnuts
 - 2 Nelson-brand oscillating sprinklers for the mixed vegetable garden
 - 3 rain bird-brand impact sprinklers for the ornamental garden

Geography and Climate

Mitchell Bay Farm encompasses 20 acres of mixed use agricultural land on Mitchell Bay Road, approximately 1200 feet south of and up-gradient from Mitchell Bay, a narrow salt water bay on the northwest side of San Juan Island. Mitchell Bay Farm slopes downward and northward toward Mitchell Bay. The pond is located on the northern boundary of the property and has no direct outlet into Mitchell Bay. However, during the rainy season, the pond has an outlet that discharges overflow into a ditch parallel to Mitchell Bay Road. No streams or other freshwater hydrologic features are downstream from the proposed source water. The property is located within the NW¼ NE¼ of Section 2, Township 35 North, Range 4 West, W.M.

The surrounding area is mixed farmland, forestland, and developed beachfront property. The temperate climate of the San Juan Islands is typified by cool, dry summers, and mild, moderately wet winters. Due to the rainshadow effect from the Olympic Mountains, the San Juan Islands have significant variations in annual and seasonal precipitation (USGS, 2002).

Regional studies suggest a range of precipitation data for the Mitchell Bay Area. The 2002 USGS Water-Resources Investigations Report 02-4114 found the mean annual precipitation for the place of use to be 30-32 inches/year (see Attachment 3). In contrast, the 1975 Department of Ecology Water Supply Bulletin No. 46 found mean annual precipitation in that same area to be 23 inches/year. The nearest weather station to Mitchell Bay Farm is Olga, Washington, on Orcas Island, which is closely aligned with the USGS precipitation data for Mitchell Bay and this data is thus used for our precipitation calculations.

Mitchell Bay Farm is characterized by a combination of bedrock and glacial till. The soil is primarily Sucia loamy sand, comprised of glacial outwash over dense glaciomarine deposit (NRCS, 2009).

Other Rights Appurtenant to the Place of Use

The Department of Ecology has record of 16 water rights or water right claims within a half mile radius of Mitchell Bay Farm's proposed points of diversion (see Table 3 and Attachment 4). Rights that fell within a ½ mile radius, but are located on the peninsula across the Bay to the north, are excluded. Of the water rights considered for the impairment analysis, seven are state-issued water right certificates (3 for groundwater and 4 for surface water), three are short-form claims for groundwater, and six are long-form claims for groundwater.

Table 3. Record of Water Rights within Half Mile Radius of Proposed Points of Diversion

| Control Number | Name on Document | Document Type | Priority Date | Purpose | Q_i (gpm) | Q_a (ac-ft/yr) | Location |
|-----------------------|-------------------------|----------------------|----------------------|----------------|--------------------------------|-------------------------------------|----------------------------|
| G1-059974CL | Stack, Richard | Claim S | N/L | DG | N/L | N/L | S35, T36N, R04W |
| G1-066700CL | Ricks, Clarence | Claim S | N/L | DG ST | N/L | N/L | S02, T35N, R04W |
| G1-068022CL | Boyd, Harris | Claim S | N/L | DG ST | N/L | N/L | S02, T35N, R04W |
| G1-009525CL | French, C.M. | Claim L | N/L | DG IR | N/L | N/L | S02, T35N, R04W |
| G1-015086CL | Johnson, Thorsten | Claim L | N/L | DG | N/L | N/L | S35, T35N, R04W |
| G1-018304CL | Parber, James | Claim L | N/L | DG | N/L | N/L | S35, T36N, R04W |
| G1-093579CL | Haworth, DW | Claim L | N/L | DG | N/L | N/L | S35, T36N, R04W |
| G1-106069CL | Briggs, Paul | Claim L | N/L | NR | N/L | N/L | S35, T36N, R04W |
| G1-130925CL | Welsh, Edna | Claim L | N/L | DG | N/L | N/L | S02, T35N, R04W |
| G1-21111CWRIS | Bartlett Jr, James | Cert | 1973 | DS | 8 | 1 | S35, T36N, R04W |
| G1-24035CWRIS | Welsh, Edna | Cert | 1982 | DM | 20 | 30 | NW¼ NW¼ S02, T35N, R04W |
| S1-24961CWRIS | Willard, Steve | Cert | 1986 | FS RE ST | N/L | 0.29 | NE¼ NE¼ S02, T35N, R04W |
| S1-24958CWRIS | Willard, Steve | Cert | 1986 | FS RE ST | N/L | 0.074 | SE¼ SE¼ S35, T36N, R04W |
| S1-24957CWRIS | Willard, Steve | Cert | 1986 | FS RE ST | N/L | 0.113 | SE¼ SE¼ S35, T36N, R04W |
| S1-24956CWRIS | Willard, Steve | Cert | 1986 | FS RE ST | N/L | 0.25 | NE¼ NE¼ S02, T35N, R04W |
| G1-20561CWRIS | Clauson, Gordon | Cert | 1973 | DM | 50 | 80 | SW¼ SW¼ S35, T36N, R04W |

Abbreviation Key: Q_i – instantaneous quantity, Q_a – annual quantity, gpm – gallons per minute, Claim L – long form claim, Claim S – short form claim, DG – domestic general, DM – domestic multiple, DS – domestic single, FS – fish propagation, IR – irrigation, RE – recreation and beautification, ST – stockwater, S – Section, T – Township, R – Range, N/L – not listed

Impairment Considerations

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.
- Interrupt or interfere with the availability of water at the authorized point of diversion of a surface water right. A surface water right conditioned with instream flows may be impaired if a proposed use or change would cause the flow of the stream to fall to or below the instream flow more frequently or for a longer duration than was previously the case.
- Interrupt or interfere with the flow of water allocated by rule, water rights, or court decree to instream flows.
- 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).

The Mitchell Bay Farm surface water right application S1-28673 is not in direct hydraulic continuity to any of the water rights listed in Table 3. The nearest water right to the proposed points of diversion is the applicant's domestic water source (G1-066700CL). While the pond is connected to a ditch channeling seasonal runoff, there is no outflow from the applicant's pond that would affect down-gradient water right holders. The water rights included in Table 3 are outside the hydraulic influence of the Mitchell Bay Farm pond. Thus, the proposed diversion will not impact proximate water rights.

Water Availability

For water to be available for appropriation, it must be both physically and legally available.

Physical availability

For water to be physically available for appropriation there must be ground or surface water present in quantities and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use or uses. In addition, the following factors are considered:

- Volume of water represented by senior water rights, including federal or tribal reserved rights or claims;
- Water right claims registered under Chapter 90.14 RCW;
- Ground water uses established in accordance with Chapter 90.44 RCW, including those that are exempt from the requirement to obtain a permit; and
- Potential riparian water rights, including non-diversionary stock water.
- Lack of data indicating water usage can also be a consideration in determining water availability, if the department cannot ascertain the extent to which existing rights are consistently utilized and cannot affirmatively find that water is available for further appropriation.

When we visited Mitchell Bay Farm, we were not able to measure the maximum instantaneous flow (Q_i) for the two pumps because the Farm did not yet have the pumps set up and running. However, we were able to estimate the Q_i based on the specifications for the two pumps. Combined, the pumping rate of the two pumps is estimated to be 80 gpm. Based on this calculation and discussions with the applicants, we know that the instantaneous quantity of 0.178 cfs is physically available from the pond.

The Department of Ecology uses the Washington Irrigation Guide (WIG) to determine crop water duties when the actual volume of water applied per acre is not known, or to assess whether actual use is reasonable for a given crop (see Table 4). Application efficiency (E_a) values are from *GUID-1210, Determining Irrigation Efficiency and Consumptive Use*. Assumptions made for the consumptive irrigation requirement (CIR) of each crop are discussed below.

A literature search showed that Asian pears and hazelnuts (both with groundcover) have a similar water duty to apples and therefore the apple with cover CIR was used. A joint publication from Oregon State University, University of Idaho, and Washington State University estimate the water duty for kiwi fruit at 40 to 48 acre-inches per year. By subtracting the seasonal rainfall from the Olga weather station (11.26 inches/April-October) from the average water duty for kiwi fruit, the CIR for kiwi fruit at Mitchell Bay Farm is calculated to be 32.74 inches. To determine the CIR for the mixed vegetable garden, the CIR for 12 common vegetables was averaged. Lastly, the Irrigation Water Management Society estimates the

Legal availability

To determine whether water is legally available for appropriation, the following factors are considered:

- Regional water management plans – which may specifically close certain water bodies to further appropriation.
- Existing rights – which may already appropriate physically available water.
- Fisheries and other instream uses (e.g., recreation and navigation). Instream needs, including instream and base flows set by regulation. Water is not available for out of stream uses where further reducing the flow level of surface water would be detrimental to existing fishery resources.
- The Department may deny an application for a new appropriation in a drainage where adjudicated rights exceed the average low flow supply, even if the prior rights are not presently being exercised. Water would not become available for appropriation until existing rights are relinquished for non-use by state proceedings.

There are no regulatory closures or restrictions affecting water availability on San Juan Island and WDFW found no impacts to fish, wildlife, or the habitat they rely on. Therefore, I find water is legally available for appropriation.

Beneficial Use

Irrigation is considered a beneficial use under RCW 90.54.020(1).

Public Interest Considerations

No protests were filed against this application and no potential for detriment to the public interest was identified during the investigation of this application.

Conclusions

In accordance with chapter 90.03 RCW, I conclude that there is water available from the source in question, the purpose of use is beneficial, there will be no impairment of existing rights, and there will be no detriment 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:

- 0.178 cfs
- 1.80 acre-feet per year
- Purpose for seasonal irrigation (April 1 – October 31)

Points of Diversion

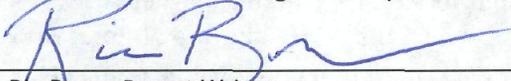
NW¼, NE¼, Section 02, Township 35 North, Range 04 West, W.M.

Diversion point 1: 2,440 feet west of NE corner, Section 2, Township 35 North, Range 4 West, W.M.

Diversion point 2: 178 feet south and 2,488 feet west of NE corner, Section 2, Township 35 North, Range 4 West, W.M.

Place of Use

See Attachment 2 for legal description


Ria Berns, Report Writer

7/8/2013
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

Pacific Northwest Extension. 2004. *Growing Kiwifruit*. PNW Publication No. 507 (reprinted April 2005).
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Wilkinson, Jennifer. 2005. *Nut Grower's Guide: The Complete Handbook for Producers and Hobbyists*. Landlinks Press.
http://books.google.com/books?id=0WjoH4jchEMC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false. Ebook accessed on April 28, 2013.

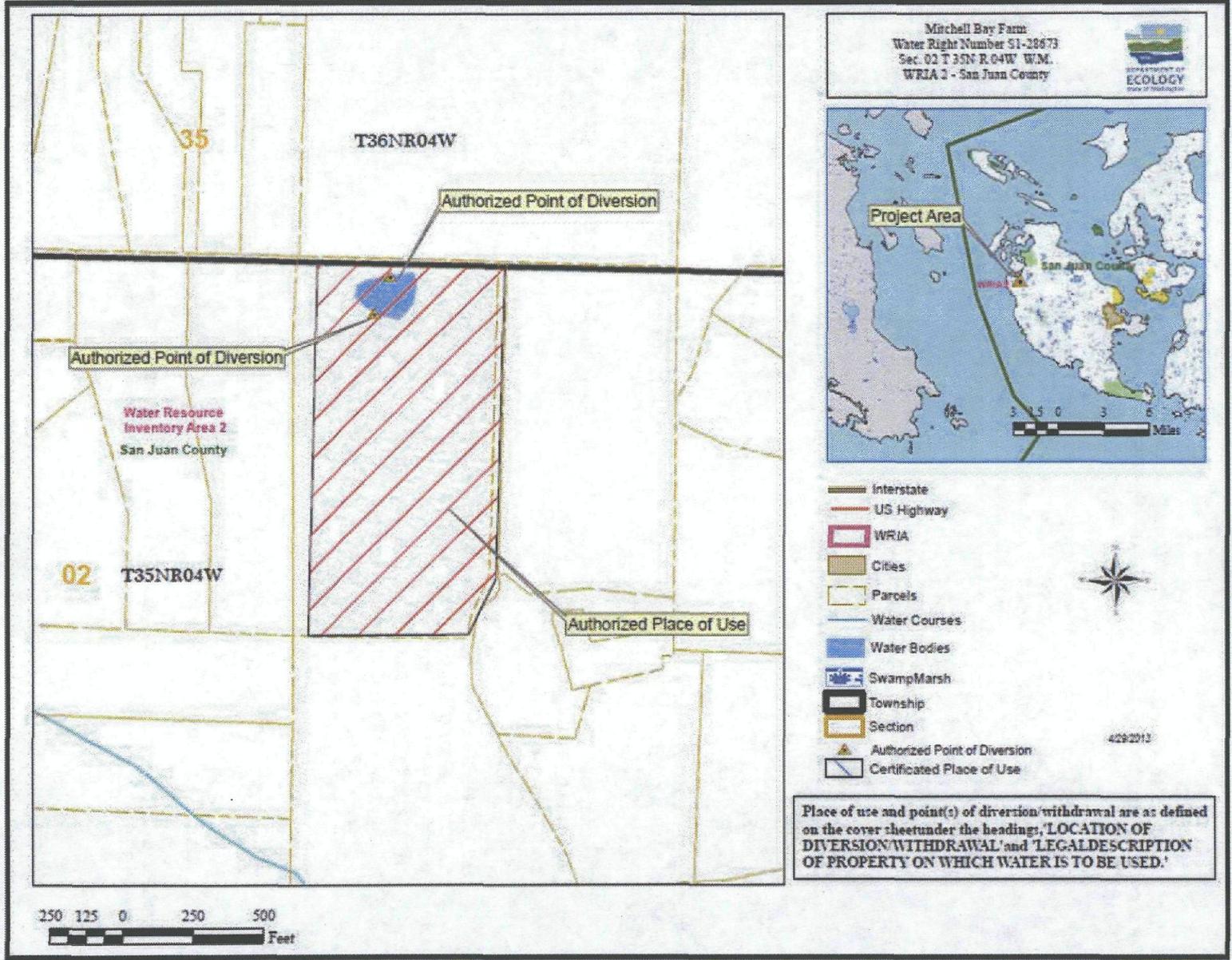
Rackham, R.L. 1996. *Irrigating Deciduous Fruit and Nut Trees in Oregon*. Oregon State University Extension Service Publication No. 1424.
<http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/14278/ec1424.pdf?sequence=1>.
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The Irrigation Water Management Society. *Basic Water Budget Calculator*
<http://www.iwms.org/WaterBudCalcB.htm#end>. Accessed, April 28, 2013.

Russell, Robert H., editor. 1975. *Geology and Water Resources of the San Juan Islands*. Washington Department of Ecology, Office of Technical Services, Water Supply Bulletin, No.46.

U.S. Geological Survey. 2002. *Estimates of Ground-Water Recharge from Precipitation to Glacial-Deposits and Bedrock Aquifers on Lopez, San Juan, Orcas, and Shaw Islands, San Juan County, Washington*. U.S. Geological Survey, Water-Resources Investigations Report 02-4114.

Natural Resources Conservation Service. 2009. *Soil Survey of San Juan County, Washington*.
<http://soildatamart.nrcs.usda.gov/manuscripts/wa055/0/SanJuanWA.pdf>. Accessed, April 28, 2013.



Attachment 2: Place of Use Legal Description

That portion of Government Lot 3, Section 2, Township 35 North, Range 4 West, W.M., San Juan County, Washington, described as follows:

Beginning at the North quarter corner of said Section 2; THENCE along the North line of said Section 2 North 89°53'07" West for a distance of 6.36 feet; THENCE South 02°04'48" West for a distance of 32.58 feet to an existing fence corner; THENCE along an existing fence line or the extension thereof South 02°04'48" West for a distance of 94.08 feet; THENCE South 01°17'24" West for a distance of 101.90 feet; THENCE South 01°22'06" East for a distance of 469.79 feet; THENCE South 01°50'43" East for a distance of 391.75 feet; THENCE South 01°35'40" East for a distance of 247.15 feet to a point on the South boundary of said Government Lot 3; THENCE leaving said fence line, along said South boundary South 89°26'21" East for a distance of 1.52 feet to the Southeast corner of said Government Lot 3; THENCE along the East boundary thereof North 00°48'48" West for a distance of 1336.86 feet to the TRUE POINT OF BEGINNING, ALSO

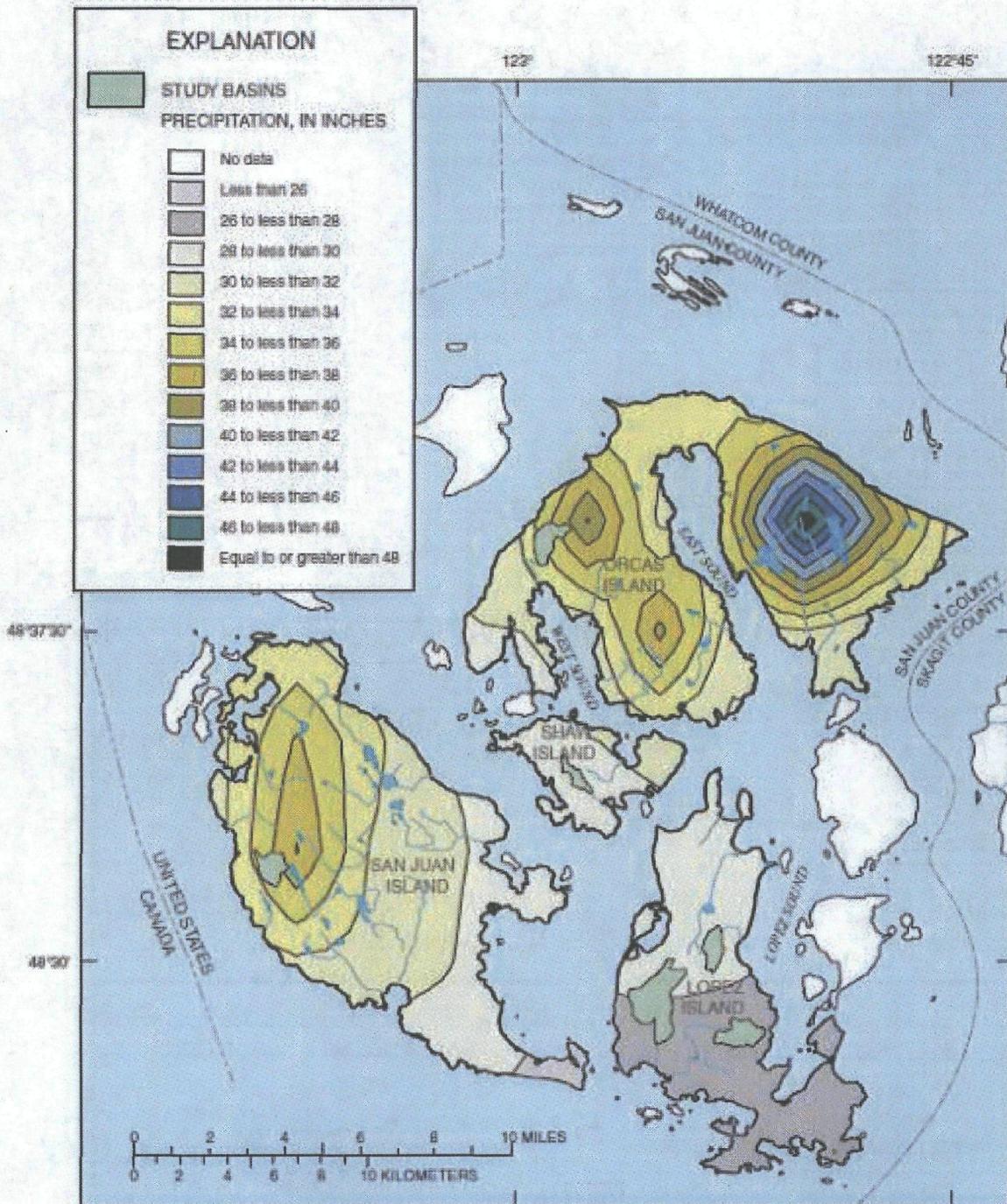
That portion of Government Lot 2, Section 2, Township 35 North, Range 4 West, W.M., San Juan County, Washington, lying Westerly and Northerly of the following described line:

Commencing at a concrete monument marking the Northeast corner of said Section 2; THENCE along the North boundary of said Section 2, as shown of record in that Short Plat of THE BOULDERS as recorded at Volume 6 of Short Plats, Page 33, records of said county, North 89°58'07" West for a distance of 1321.44 feet to the Northeast corner of said Government Lot 2; THENCE along the North boundary of said Government Lot 2 North 89°58'07" West for a distance of 621.52 feet to the TRUE POINT OF BEGINNING of this line description; THENCE said line runs along an existing fence line or the extension thereof South 00°04'41" East for a distance of 1108.02 feet; THENCE South 22°58'42" West for a distance of 156.69 feet; THENCE South 07°12'39" West for a distance of 78.25 feet; THENCE South 88°22'28" West for a distance of 69.11 feet; THENCE South 88°54'00" West for a distance of 113.14 feet; THENCE North 89°39'49" West for a distance of 429.34 feet to a point on the West boundary of said Government Lot 2 and the terminus of this line description;

EXCEPT county road conveyed to San Juan County under Auditor's File No. 57999, records of San Juan County, Washington.

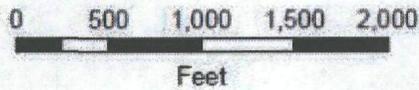
- END OF EXHIBIT "A" -

Attachment 3: Estimated Mean Annual Precipitation of San Juan Islands



Credit: U.S. Geological Survey, 2002

Attachment 4: Water Rights in the Vicinity of S1-28673



1:10,000

- ▲ Surface Water Diversion
- Well
- Water Body
- ▨ Wetland
- Parcels



Water Rights in the Vicinity of Application S1-28673
 San Juan County, Washington
 April 2013