DEPARTMENT OF ECOLOGY
State of Washington

STATE OF WASHINGTON
DRAFT
REPORT OF EXAMINATION
FOR WATER RIGHT CHANGE

File NR CS2-CV1-2P8
WR Doc ID 6803779

Added or Changed Purpose of Use

APPLICATION DATE	WATER RIGHT CHANGE APPLICATION NUMBER
June 28, 2021	CS2-CV1-2P8

PRIORITY DATE OF CLAIM PROPOSED FOR CHANGE	CERTIFICATE OF CHANGE NUMBER PROPOSED FOR CHANGE
12/24/1930	S2-CV1-2P8

NAME AND MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Lee Gates 5095 Lost Mountain Ranch Rd Sequim, WA 98382	

Total Rate and Quantity Authorized for Diversion

DIVERSION RATE (cfs)	ANNUAL QUANTITY (ac-ft/yr)
0.15	27.52

cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year

Associated Water Right(s)

DOCUMENT NUMBER	INSTANTANEOUS RATE (cfs)	ANNUAL QUANTITY (ac-ft/yr)	REMARKS
SWC3077	0.005	Not specified	n/a

Purpose(s)

PURPOSE	DIVERSION RATE (cfs)	ANNUAL QUANTITY (ac-ft/yr)	PERIOD OF USE
Irrigation (11 acres)	0.15 cfs	23.26	5/1-10/31
Industrial/Commercial Supply	0.15 cfs	4.26	5/1 -10/31

IRRIGATED ACRES
11

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Clallam	Surface Water	McDonald Creek	18 Elwha-Dungeness

SOURCE NAME	PARCEL	WELL TAG	TOWNSHIP	RANGE	SECTION	QQ Q	LATITUDE	LONGITUDE
Little Creek Diversion	042908310000	n/a	29N	04W	08	SE/SW	48.0255	-123.2305

QQ Q = Quarter Quarter

Datum: NAD83/WGS84

Place of Use
PARCEL(S)
Parcel No. 042908310000

LEGAL DESCRIPTION OF THE AUTHORIZED PLACE OF USE
South ½, Section 8, T.29N., R.4W., W.M., in Clallam County, Washington

Proposed Works
(POD): a single diversion structure located on the north bank of Little Creek. Water is conveyed through existing piping.

Development Schedule		
BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	PUT WATER TO FULL USE BY THIS DATE
Started	October 1, 2027	October 1, 2032

Attention: These dates represent deadlines that must be met or risk cancellation of this authorization. Submittal of formal documentation for each stage is required. Extensions may be requested.

Measurement of Water Use	
HOW OFTEN MUST WATER USE BE MEASURED AND RECORDED?	Monthly
HOW OFTEN MUST WATER USE DATA BE REPORTED TO ECOLOGY?	Annually by January 31
WHAT VOLUME SHOULD BE REPORTED?	Total annual quantity in acre-feet
WHAT RATE SHOULD BE REPORTED?	Annual peak rate of diversion in cfs

Provisions

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", chapter 173-173 WAC, 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 (Ecology) for modifications to some of the requirements.

Recorded water use data shall be submitted electronically by January 31 each year. To set up an Internet reporting account, contact the Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Regional Office for forms to submit your water use data.

Proof of Appropriation
Consistent with the development schedule given in this report (unless extended by Ecology), the water right holder must file a Notice of Proof of Appropriation (PA) of Water with Ecology. The PA documents the project is complete and all the water needed has been put to full beneficial use (perfected). In order to verify the extent of water use under this water right change approval, an inspection of water use is typically required, known as a "proof exam". After filing the PA, the water right holder's next step is to hire a Certified Water Rights Examiner (CWRE) to conduct this proof exam. A list of CWREs is provided to the water right holder upon filing the PA with Ecology. The final water right document, a water right

certificate, then may issue based upon the findings of the CWRE. Statutory county and state filing fees may apply prior to certificate issuance.

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.

Water Use Efficiency
The ware 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.

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.

Therefore, I ORDER **APPROVAL** of Change Application No. CS2-CV1-2P8, 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 to 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

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.

Authorizing Signature

Signed at Olympia, Washington, this _____ day of _____, 2022.

_____

Michael J. Gallagher, Section Manager
Water Resources Program/Southwest Regional Office
Department of Ecology

INVESTIGATOR'S REPORT

Water Right Change Application No.: CS2-CV1-2P8 (Lee Gates)
Investigator: Jill Van Hulle, for Aspect Consulting
Reviewed by: Tammy Hall, SWRO

BACKGROUND

This report serves as the written findings of fact concerning Water Right Change Application Number CS2-CV1-2P8 submitted by Lee Gates on June 28, 2021. The applicant proposes a change to add a purpose of use to water right Certificate of Change S2-CV1-2P8. This water right currently authorizes irrigation of the subject property. The intent of the change application is to convert a portion of the water right from irrigation to industrial/commercial uses.

Table 1. Existing Water Right Attributes

Name on Water Right Document	Busch/Gore
Certificate of Change Number	S2-CV1-2P8
Priority Date	12/24/1930
County	Clallam
WRIA	18 Elwha-Dungeness
Water Source	Little Creek
Tributary to	McDonald Creek
Place of Use	Parcel No. 042908310000 located in a portion of the South ½, Section 8, T.29N., R.4W., W.M., in Clallam County, Washington.

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Domestic Supply and Irrigation	0.15	Unspecified	Unspecified	Unspecified

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Little Creek Diversion	042908310000	n/a	29N	04W	08	SE/SW	48.0255	-123.2305

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter Datum: NAD83/WGS84

Table 2. Requested Water Right Attributes

Applicant Name	Lee Gates
Date of Application	June 28, 2021
County	Clallam
WRIA	18 Elwha-Dungeness
Water Source	Little Creek
Tributary to	McDonald Creek
Place of Use	Parcel No. 042908310000 located in a portion of the South ½, Section 8, T.29N., R.4W., W.M., in Clallam County, Washington.

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Irrigation (11 acres)	0.15 cfs	23.26	5/15	10/1
Industrial/Commercial	0.15 cfs	4.26	5/15	10/1

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Little Creek Diversion	042908310000	n/a	29N	04W	08	SE/SW	48.0255	-123.2305

Datum: NAD83/WGS84

Cost Reimbursement

This application is being processed under a cost reimbursement agreement between the applicant and the Department of Ecology. This report has been prepared by Aspect Consulting, LLC under contract to the applicant and reviewed by Tammy Hall with the Department of Ecology's Water Resources Program.

This project involves the processing of two applications for change, and since the amounts authorized to be changes are based solely of the extent of beneficial use these requests are water budget neutral such that impacts to senior pending application in the watershed will not occur. Accordingly this application may be processed independently of any senior applications.

Public Notice

A notice of application was published in accordance with RCW 90.03.280 in the Sequim Gazette on October 27, 2021, and November 3, 2021. No protests were received.

INVESTIGATION

Certificate of Change S2-CV1-2P8 authorizes the use of 0.15 cubic feet per second (cfs) for the irrigation and domestic supply from a surface water diversion on Little Creek. The authorized place of use is Parcel No. 042908310000 located in a portion of the South ½, Section 8, T.29N., R.4W., W.M., in Clallam County, Washington.

In consideration of this application, Aspect Consulting, LLC (Aspect) reviewed available documents, site conditions, and the potential effect of the proposed project on existing water rights. This included information submitted by the applicant and pertinent Ecology records including water rights records and water resources policy and guidance documents. Additional data for this analysis were obtained from the following resources:

- Correspondence with the applicant;
- Ecology's Water Right Application Tracking System (WRATS);

- Google Earth aerial photos and topography;
- Document review form files for surface water right S2-CV1-2P8; and
- A site visit was performed for this water right on May 10, 2021 by Aspect staff.

Basis of Water Demand and Proposed Use

Site Description

The project consists of a 76-acre subject property (parcel no. 042908310000) located in a portion of the South ½, Section 8, T.29N., R.4W., W.M., in Clallam County, Washington. The property is within Water Resource Inventory Area 18: Elwha-Dungeness River watershed (Figure 1) and is situated in the foothills along the northern flanks of the Olympic Mountain range. The site elevations range from approximately 1,250 feet to 1,400 feet (NAVD88). The property is approximately 7 miles southwest of the City of Sequim, Washington.

Water System Description

The water delivery system for the property co-mingles the facility's stockwater/animal husbandry supply with the irrigation supply that is authorized by surface water certificate CS2-CV1-2P8. Water for both irrigation and other demands is diverted from a single diversion point of diversion which consists of a circa-1940's concrete vault/cistern that is buried into the creek bed. The collection structure, which is estimated to hold about 1,000 gallons of water, is continuously full and equipped with a submersible pump that conveys the water uphill approximately 100 feet to the north to a buried pressure tank. From the pressure tank water is either piped 50 feet to the east to a small open storage irrigation pond, or directly plumbed to the 5,600 square-foot horse barn. The pressure tank is equipped with a valve that keeps it continuously full and serves to regulate water pressure for the fixtures in the barn.

The primary irrigation pump is a Goulds centrifugal 2-hp pump. Water is used to irrigate three pastures and multiple zones of lawn surrounding the existing dwellings. Pastures and lawns are irrigated through spray sprinklers. Difficult-to-reach zone of pasture are irrigated by a 2,000-gallon-capacity water truck. Irrigation generally begins in mid-May and runs into October, depending on the weather.

The surface water diversion from Little Creek is not metered; however, based on conversations with the applicant, it is estimated that water from the lower cistern (at Little Creek) is pumped at a rate of slightly less than 100 gallons per minute.

History of Water Use

The historical use of the property has been agricultural, used primarily for raising livestock and irrigation of pastures for grazing. The applicant has owned this property since 1999 and since his purchase has used this property consistent with this historical use and continued to utilize the existing water supply and irrigation system installed by the previous owners.

The original water right certificate S2-*03266CWRIS was filed by Eva Busch on December 24, 1930 for 0.15 cubic feet per second (cfs) for domestic supply and irrigation of 80 acres. The Proof of Appropriation was filed on September 11, 1935, with the permit holder attesting that the applicant had 80 acres under irrigation, and that irrigation use occurred between May and November.

Based on a review of the site, it appears unlikely that 80 acres could have been irrigated since the place of use is largely forested and cleared irrigable land likely has not historically been more than 15 acres. It is more likely that 80 acres simply corresponded with the footprint of the 78-acre place of use.

The irrigated acreage was evaluated using aerial imagery from the years 1980[1], 1994, 2006, 2011, and 2017 as well as verified during the site visit. In 1994, there was approximately 15 irrigated acres on the property – depicted on the 1994 image as three 5-acre lobes and in 2017 the irrigated acreage was calculated to be 13 acres. The reduction in the observed irrigated acreage can be attributed to the construction of several barns and dwellings on the subject property.

The discrepancy between irrigated acreage is particularly apparent in a 1994 image the shows the place of use relative to the underlying land use. In 1994 the property was largely forested with large swathes of recently logged areas readily visible.

1994 Aerial Imagery

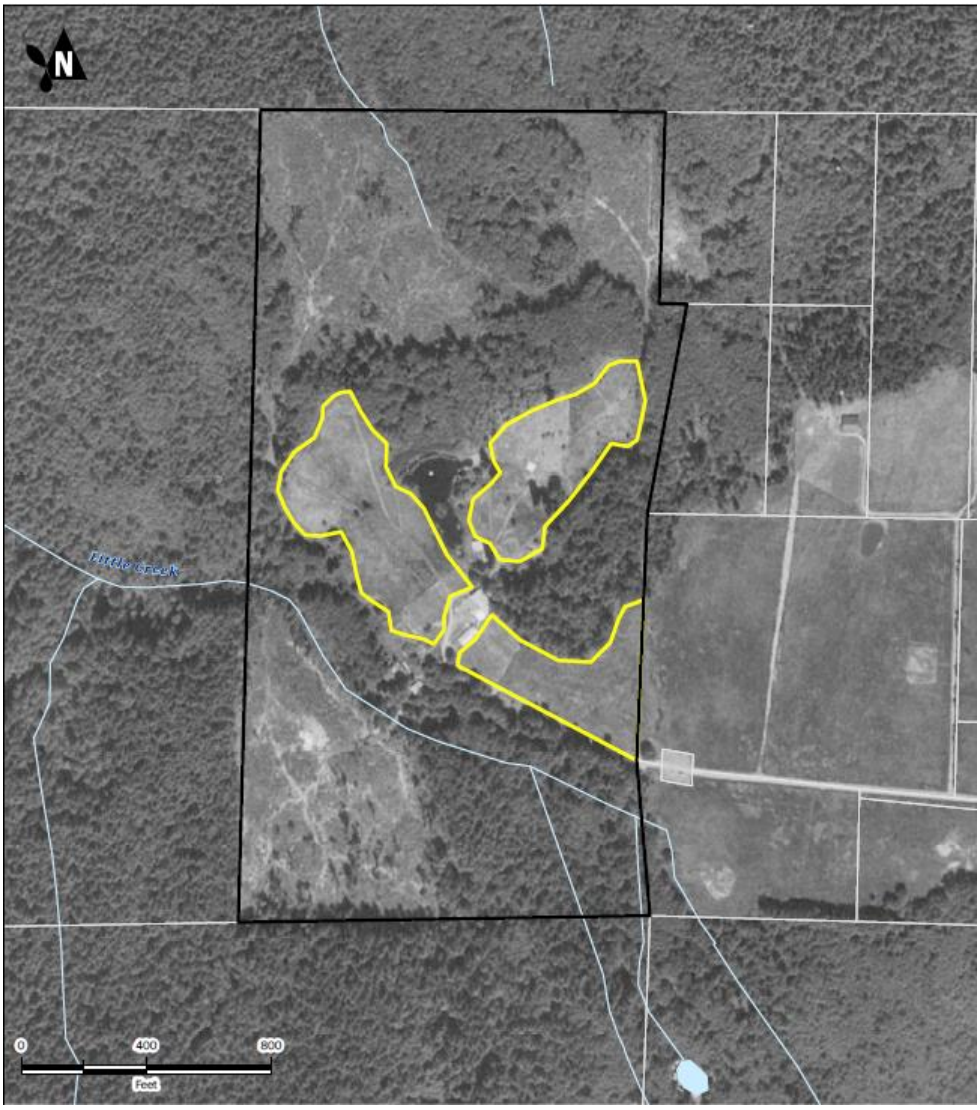
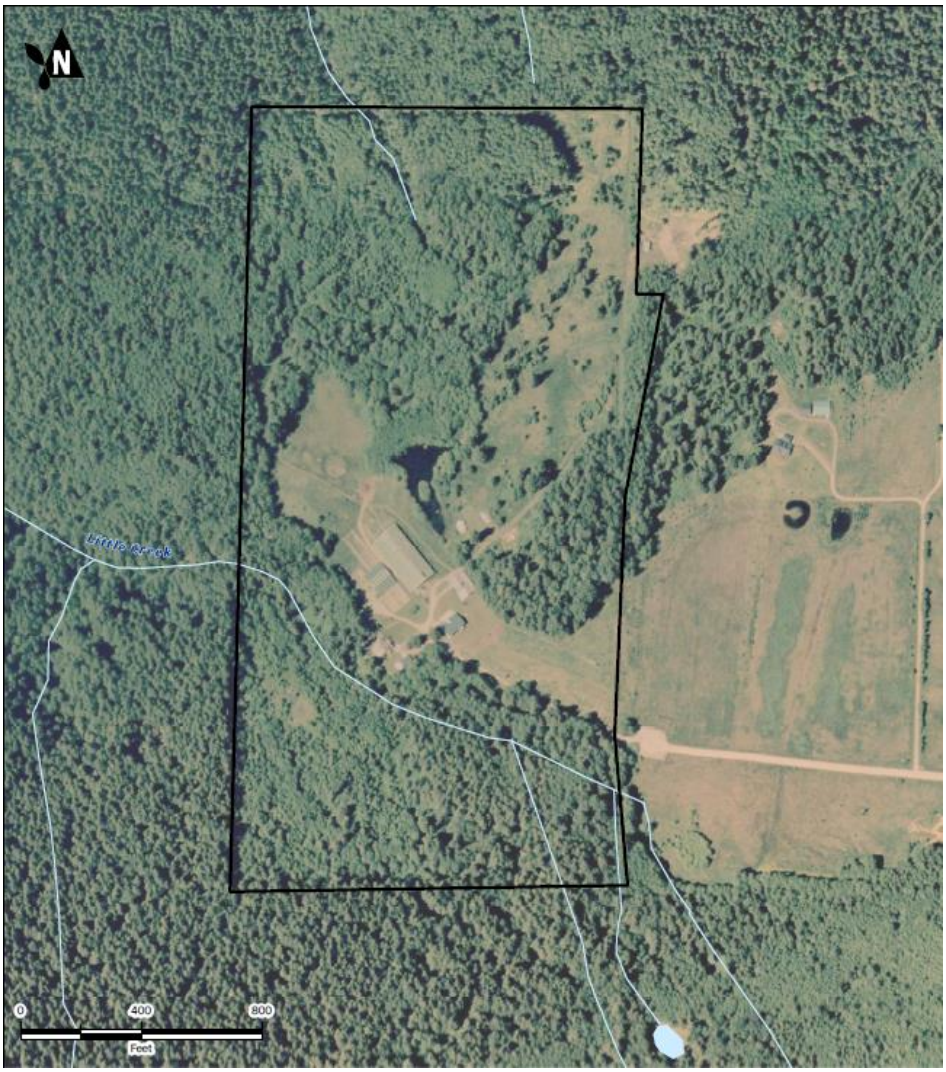


Figure 1. Aerial imagery from June 1994. The three 5-acre irrigated "lobes" are shown in yellow.

[1] Early imagery of the site dating back to 1980 shows the same distinct footprint of cleared pastures but lacks the resolution of the 1994 photos.

By 2017, the previous logged areas have regrown and the configuration of pastured areas that we see today becomes apparent.

2017 Aerial Image



An Application for Change of water right was filed on July 29, 1972 by Francis and Ruth Gore requesting a change in the point of diversion of water to move the point of diversion approximately 1,300 feet downstream to correspond to the site of the current diversion point. The change in diversion point was granted by Ecology without a documented investigation of the extent of the historical water use, however based on the issuance of the Certificate of Change (S2-CV1-2P8) on January 12, 1973. It can be presumed that at least some of the property was being irrigated and that the operation was physically observed during the site visit and deemed to be not relinquished, at least not in full.

While supplemental information regarding water use prior to 1980 is not available, the land use patterns that suggest that the majority of the property has always been largely forested and that forested area never converted to fields. Based on the available information - both the available photos and the fact

that the current owner inherited a functional irrigation system that is capable of supplying water to approximately 13 acres, we can only presume that use has been consist on the site since it was originally developed as pastures and for hay production. While the information available does not lend itself to a year-by-year documentation of yearly water use between 1973 when the right was last investigated it is not unreasonable to presume that no significant changes were made to it.

The irrigation system has never been metered. However, in situations where metering data in not available, Ecology uses various estimation methods such as the Washington Irrigation Guide (WIG) and Ecology Water Resources Program Guidance 1210[2] to estimate the crop irrigation requirement (CIR). The WIG provides the CIR needed to calculate the total and consumptive use associated with irrigated agriculture, and Guidance 1210 provides typical irrigation efficiencies that Ecology use when determining total irrigation requirement (TIR). Guidance 1210 indicates the average irrigation efficiency (Ea) for a portable sprinkler of 75 percent. The amount of water that is consumptively used includes CIR and water evaporated during irrigation application (as evapotranspiration).

Table 3 depicts the water duty associated with grass-type crops based on climatic conditions near Sequim, Washington. The annual water duty (CIR) for the irrigation of an acre of pasture grass is 19.05 inches (1.58 acre-feet). For the irrigation of 13 acres, a properly irrigated crop would need about 20.64 acre-feet applied between March and October. This initial figure reflects only what the crop actually needs. However, no irrigation system is completely efficient, and estimates of total water demand generally include consideration of the additional water that is pumped and either evaporates or simply soaks back into the ground as return flow. A second value, referred to as the Total Irrigation Requirement (TIR), reflects the total amount of water that would have been needed to successfully irrigate 13 acres. For this site, that value is 27.52 acre-feet.

Table 3 includes the breakdown of total water use. While these rights allow for the irrigation of 80 acres, our investigation finds that only 13 acres are being irrigated on the property.

Table 3. Total Irrigation Requirement for 13 Acres

Acres	CIR/inches (WIG)	CIR (afy)	TIR (afy)	App. Efficiency (%)	% Total Evaporated	Total Consumed (afy)	Return Flow (afy)
13	19.05	20.64	27.52	75	5	22.01	5.50

Domestic water use is estimated to be 350 gallons per day (0.39 acre-feet per year), however there is no documented history of surface water being used for direct domestic water use for human consumption on the property. Accordingly these quantities have not been considered for this requested change.

Proposed Use

This water right application seeks a water supply for industrial and commercial use, and production can be adjusted to meet the legally available supply. Based on conversations with the applicant, the project is viable with as little as 1,000 gallons day, however between 3,500 – 6,000 gallons per day (gpd) would be the ideal supply target.

[2] https://fortress.wa.gov/ecy/wrdocs/WaterRights/wrwebpdf/guid1210.pdf

Water for the industrial/commercial use will be supplied by the applicant's two existing Little Creek water rights: 100 percent of the stockwater right (S2-*06652CWRIS) and a portion of the irrigation water right (subject water right; S2-CV1-2P8).

Total stockwater use on the property was estimated to be 1,170 gpd (1.31 acre-feet/year). The applicant plans to cease all existing stockwater use on the property and change 100 percent (1.31 ac-feet) to industrial/commercial use for the distillery. Under this Change authorization, the applicant proposes to reduce the irrigated acreage on the property from 13 acres to 11 acres to provide the additional 4.26 acre-feet needed to meet the projected annual requirement.

Since industrial/commercial supply is being added to this water right authorization while maintaining a reduced amount of irrigation the provisions of RCW 90.03.380 require an investigation to ensure that the annual consumptive quantity (ACQ) of water is not being increased as a result of the change. A discussion of the annual consumptive quantity is provided in the Analysis Section below.

Other Rights Associated with Project or Place of Use

The applicant holds Certificate S2-*06652CWRIS for the purpose of domestic and stock water use. A change application was filed concurrently with the subject water right application of this ROE and is associated with this project. The change application requests the change from stock water use to industrial/commercial use. Total stockwater use on the property was estimated to be 1,170 gpd (1.31 acre-feet/year).

Ecology's Water Resources Explorer shows no other overlapping places of use on the subject parcel.

Hydrology/ Evaluation

The hydrology of the Dungeness River watershed area of WRIA 18 is described in several documents, including:

- *Assessment of Baseflow in Small Streams of the Dungeness Watershed,* Pacific Groundwater Group (2008).
- *Elwha-Dungeness Watershed Plan*, Water Resource Inventory Area 18 and Sequim Bay in West WRIA 17, by the Elwha-Dungeness Planning Unit (2005).

The subject water source on Little Creek is tributary to McDonald Creek in WRIA 18. According to the Watershed Plan, "McDonald Creek is a significant independent drainage to salt water, entering the Strait of Juan de Fuca between the western end of Dungeness Spit and Green Point". "Its headwaters originating at ~4,700 feet". The confluence of Little Creek and McDonald Creek is situated in the foothills above the Dungeness floodplains, where the drainage has been incised in steep ravines.

ANALYSIS

Under Washington State statutory (RCW 90.03.380 and 90.44.100) and case law, in evaluating a water right change application, Ecology is required to determine whether, and to what extent, a water right is valid and eligible to be changed. Further, the following criteria must be assessed for a change to a surface water certificate of change.

- The existing right must not be enlarged.

- The proposed change and resulting water use must not cause impairment of existing rights.
- The water source must not change.

Water Availability

Water must be physically available at the proposed point(s) of withdrawal. For water to be physically available, it must be present in quantities and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use or uses.

Physical Availability
Historically, the stream flow in Little Creek has been adequate to support the full use of the water right. Flow in Little Creek is perennial. Based on the USGS Stream Stats tool, the drainage area feeding Little Creek at the above the point of diversion is approximately 2.18 square miles and the 10-year Low-Flow statistic is estimated to be 0.239 cubic feet per second. This value exceeds the authorized diversion rate of the subject water right.

The nearest measurement point to the water right is located on McDonald Creek, approximately 5 miles downstream. The flow is measured at the McDonald Creek at Hwy 101 station (Station ID: 18P070).

Legal Availability
WRIA 18 includes the Elwha and Dungeness Rivers and a number of other streams and creeks that drain independently from the Olympic Mountains to the Strait of Juan de Fuca. The Dungeness portion of WRIA 18 (East WIRA 18) includes the Dungeness River and a group of independent streams. The west side of the Dungeness River includes McDonald Creek, Siebert Creek and Bagley Creek. The subject water right is located in the McDonald Creek subbasin.

On January 2, 2013, Chapter 173-518 Washington Administrative Code (WAC), *Water Resources Management Program for the Dungeness Portion of the Elwha-Dungeness Water Resources Inventory Area (WIRA) 18* became effective. This rule established minimum flows and closures to protect in-stream resources in the Greater Dungeness Basin streams. Once adopted by rule, instream flows[3] constitute an appropriation with a priority date which is the effective date of the rule. New water rights or changes to existing right that would diminish flow below levels established in the rule may not be approved (RCW 90.03.345) unless impacts are fully mitigated.

This change application will not result in any additional impacts to the surface water regime because neither the point of diversion nor the amount of water is being altered. The change in purpose of use will not impact other water right holders or surface water in the watershed. These recommendations also maintain the same period of use restriction, such that the time of year that the applicant uses water is still governed by the original period of use.

Impairment

In analyzing impairment, Ecology must make a determination as to whether existing water rights, including instream flows established by Ecology rules, may be impaired by the proposed change. The

[3] "**Instream flow**" means a stream flow level set in rule to protect and preserve fish, wildlife, scenic, aesthetic, recreation, water quality, and other environmental values, and navigational values. The term "instream flow" means "base flow" under Chapter 90.54.RCW "minimum flow" under Chapters 90.03 and 90.22 RCW, and "minimum instream flow" under Chapter 90.82 RCW.

analysis will compare impacts that can occur under the existing water right to impacts anticipated if the proposed change is authorized.

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 withdrawals 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 in-stream flows may be impaired if a proposed use or change would cause the flow of the stream to fall to or below the in-stream flow more frequently or for a longer duration that was previously the case.
- Interrupt or interfere with the flow of water allocated by rule, water rights, or court degree to in-stream flows.
- Degrade the water quality of the source to the point that the water is unsuitable for beneficial use be existing users.

The Department of Ecology's Water Right Tracking System (WRTS) and Well Log database indicate the following existing neighboring water users:

- Well reports are on record for 11 wells located within a half-mile of the subject property
- Water Right Claim S2-01176CL was filed by Francis A Gore, Jr. and is located directly east of the subject property. The surface water right claims 3,500 gallons per day and an annual quantity of 2 acre-feet from an unnamed creek located in Section 8, T. 29N, R. 4W. The purpose for which the water is used is residential and minor agricultural. The date of first use is listed as 1932.
- Water Right Certificate G2-22927CWRIS was filed by Michael Lee Jeldness and has a priority date of July 1, 1974. The place of use for this water right is located directly east of the subject property. The certificate has an authority for 15 gallons per minute and an annual quantity of 4.5 acre-feet per year from a well located in Section 8, T. 29N, R. 4W. The purpose of which the water is used is domestic and stockwater.

Table 5. Neighboring Water Rights

Owner	Francis A Gore, Jr.	Michael Lee Jeldness
Water Right #	S2-011767CL	G2-22927CWRIS
Priority Date	1932	7/1/1974
Instantaneous Rate	3,500 gpd	15 gpm
Annual Quantity	2 acre-feet	4.5 acre-feet
Purpose	Domestic and Agricultural	Domestic and Stockwater
Place of Use (QQ, S, T, R)	E½ SW¼, Section 8, T. 29N, R. 4W	E½ SW¼ SE¼ and the S½W½W½SE¼SE¼, Section 8, T. 29N, R. 4W

Notes:
gpm = gallons per minute; gpd = gallons per day.

Due to adequate distance between the neighboring wells and point of diversion and the historic use of the subject water right, this change application will not impair existing groundwater or surface water rights.

Tentative Determination of Validity and Extent

A tentative determination of the validity and extent of a water right must be performed for any proposed water right change. Ecology must evaluate the historical use of the subject right and other factors to determine the rate and quantity of water that may be changed. Under Washington State statutory (RCW 90.03.380 and 90.44.100) and case law, in evaluating a water right change application, Ecology is required to determine whether, and to what extent, a water right is valid and eligible to be changed. Further, the following criteria must be assessed for a change to a surface water certificate.

- The existing right must not be enlarged.
- The proposed change and resulting water use must not cause impairment of existing rights.
- The water source must not change.
- Water use must continue to be beneficial.
- The proposed change and resulting water use must not be detrimental to the public interest (public welfare).

The original water right certificate was issued in October 1935 for the irrigation of 80 acres. Based on the history of water use described herein, the aerial imagery suggests that up to 15 acres have been historically irrigated at the property over the time investigated. Irrigation operations on the property appear to be unchanged since the applicant purchased the property in 1999 and inherited the existing water supply and irrigation system from the previous owners. It appears that 13 of the originally authorized acres appear to have been reliably irrigated. The crop irrigation requirement for pasture grass from the closest monitoring station in the Washington Irrigation Guide (Sequim) is 19.05 inches. Average sprinkler efficiency for handline is 75 percent, for a total irrigation requirement of approximately 2.12 acre-feet per acre. The total irrigation requirement for 13 acres of irrigation was determined to be 27.52 acre-feet.

The instantaneous rate on the original water right certificate is listed as 0.15 cfs. The instantaneous rate per acre during maximum irrigation appears to be 0.15 cfs/15 acres, or about 0.01 cfs/acre. Typical irrigation rates are on the order of 0.02 cfs/acre, or about 9 gpm per acres. Aspect investigated the water right Point of Diversion on Little Creek during a site visit on May 10, 2021.

Both the subject water right and the applicant's other water right (S2-*06652CWRIS) are diverted at the Little Creek Diversion structure. The combined instantaneous rate of both water rights totals 0.155 cfs, or about 70 gpm. While the surface water diversion from Little Creek is not metered, based on conversations with the applicant, it is estimated that the pump that conveys water from the lower cistern at Little Creek to the upper storage reservoir can produce about 75 gallons per minute.

Beneficial Use

The use of water for industrial/commercial and irrigation supply is considered a beneficial use of water under RCW 90.54.020(1).

Public Interest

State Environmental Policy Act (SEPA)

Under chapter 197-11 WAC, a water right application is subject to a SEPA threshold determination (i.e., an evaluation of whether there will be significant adverse environmental impacts) if any of the following conditions are met:

- It is a surface water right application for more than 1 cfs, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cfs, so long as that irrigation project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gpm;
- It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;
- 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);
- 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.

Considering that none of the above conditions are met, the application under review is categorically exempt from a SEPA threshold determination.

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 Sequim Gazette on October 27, 2021 and November 3, 2021. No protests were received as a result of the public notice.

Annual Consumptive Quantity Calculation

Under RCW 90.03.380, evaluation of any application requesting to add purposes of use or to enable irrigation of additional acreage must include an annual consumptive quantity (ACQ) analysis.

As stated in Ecology Procedure 1210, "In accordance with RCW 90.03.3801(1), the Water Resources Program is required to determine that the annual consumptive quantity under a water right proposed for a change to add acreage to an irrigation right or to add purposes of use is no greater after the change…Annual Consumptive Quantity (ACQ) means the estimated or actual annual amount of water diverted pursuant to the water right, reduced by the estimated annual amount of return flows, averaged over the two years of greatest use within the most recent five-year period of continuous beneficial use of the water right". The proposed change of the water right does not request to add acreage to the irrigation right, however, it does request a change of use from irrigation to industrial. As such, ACQ is triggered as part of this change.

Based on an aerial imagery analysis, we determined that a maximum of 13 acres has been irrigated within the most recent five-year period of continuous beneficial use.

In situations where metering data is not available, Ecology uses various estimation methods such as the Washington Irrigation Guide (WIG) and Ecology Water Resources Program Guidance 1210[4] to estimate the crop irrigation requirement (CIR). The WIG provides the CIR needed to calculate the total and

[4] https://fortress.wa.gov/ecy/wrdocs/WaterRights/wrwebpdf/guid1210.pdf

consumptive use associated with irrigated agriculture, and Guidance 1210 provides typical irrigation efficiencies that Ecology uses when determining total irrigation requirements (TIR). Guidance 1210 indicates the average irrigation efficiency (Ea) for a handline sprinkler of 75 percent. The amount of water that is consumptively used includes CIR and water evaporated during irrigation application, as evapotranspiration. The total percent consumptive use is therefore 75% + 5% = 80%. The remining 20% of the total water use constitutes non-consumptive return flow.

This equates to a water duty of 1.69 acre-feet per acre and a return flow of 0.42 acre-feet per acre (total of 2.12 acre-feet per acre authorized).

The consumptive quantity therefore is 13 acres x 1.69 acre-feet per acre, or 22.01 acre-feet.

The proposed use of water for industrial/commercial supply for the project is expected to be less consumptive than irrigation. Approximately 90 percent of total water use for industrial/commercial use shall be returned to the shallow groundwater system via a state-of-the-art treatment plant. As currently envisioned, approximately 5,400 gallons per day will be routed to the water treatment plant, however the applicant has expressed an interest in potentially using that treated effluent for the irrigation of a small orchard. While the producers of industrial process water are allowed to reuse their treated industrial waste water for irrigation without needing a water right, we want to ensure that our annual consumptive quantity (ACQ) findings account for the fact that the return flow of this project may become as consumptive as the original irrigation purpose. Accordingly, in Table 4 we have used the same ratio of consumptive to non-consumptive water use for the industrial/commercial supply as the irrigation use.

Table 4. Consumptive Use Comparison

Purpose of Use	TIR (afy)	Consumptive %	Total Consumptive Portion (afy)	Return Flow (afy)
Existing Water Right Use				
Irrigation of 13 Acres	27.52	20%	22.01	5.50
		Total	*22.01*	*5.50*
Proposed Water Right Use				
Irrigation of 11 Acres	23.26	20%	18.61	4.65
Industrial/ Commercial Supply	4.26	20%	3.41	0.85
		Total	*22.01*	*5.50*

Other Administrative Requirements

The following must be considered when evaluating a proposed water right change.

Notification to the Washington Department of Fish and Wildlife

Per RCW 90.03.280 and 77.57.020, Ecology must give notice to the Washington Department of Fish and Wildlife (WDFW) of applications to divert, withdraw, use, or store water. WDFW was provided notice of this water right change application on February 3, 2022, and Water Rights Biologist Steve Boessow responded with the following comments:

1. Steelhead, coho, and cutthroat are not just historical, they are still present. In addition to ESA listed salmonids, there are ESA listed Pacific Lamprey in McDonald Creek

2. The flows in McDonald Creek get seriously low, and the (Ecology) gage is not very accurate.

3. McDonald Creek and its tributaries are closed to new uses year-round. This would preclude adding a new impact to Little Creek during the winter months.

Mr. Boessow provided that if the applicant can match the timing and quantities used for stockwater and irrigation currently, that there should be no new impacts to those fish from these changes.

These issues have been taken into consideration in developing the permitting recommendation for the Applications for Change of Water Right Permit filed for both S2-*06652CWRIS and CS2-CVI-2P8. Only quantities of water that have historically developed and remain in good standing are eligible to be changed, and there will be no increase in the historical use of water on the property.

Conclusions

I find that:

- 0.15 cfs and 27.52 ac-ft/yr of water is valid and eligible for change.
- The proposed change will not result in an enlargement of the subject water right.
- The proposed change will not impair existing rights.
- The existing and proposed points of diversion draw water from the same source.
- Water is physically available at the new point of withdrawal.
- Industrial/Commercial use is a beneficial use.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend this request for a water right change be **APPROVED** in the amounts and within the limitations listed below and subject to the provisions listed above.

Recommended Quantities, Purpose of Use, and Project Location

The rate and quantity of water recommended are maximum limits. The permit holder may only divert water at a rate and quantity within the specified limits that are reasonable and beneficial:

Table 5. Recommended Project Limits and Location

Applicant Name	Lee Gates
Date of Application	June 28, 2021
County	Clallam
WRIA	18 Elwha-Dungeness
Water Source	Little Creek
Tributary to	McDonald Creek
Place of Use	Parcel No. 042908310000 located in a portion of the South ½, Section 8, T.29N., R.4W., W.M., in Clallam County, Washington.

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Irrigation (11 acres)	0.15 cfs	23.26	5/1	10/1
Industrial/Commercial	0.15 cfs	4.26	5/1	10/1

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Little Creek Diversion	042908310000	n/a	29N	04W	08	SE/SW	48.0255	-123.2305

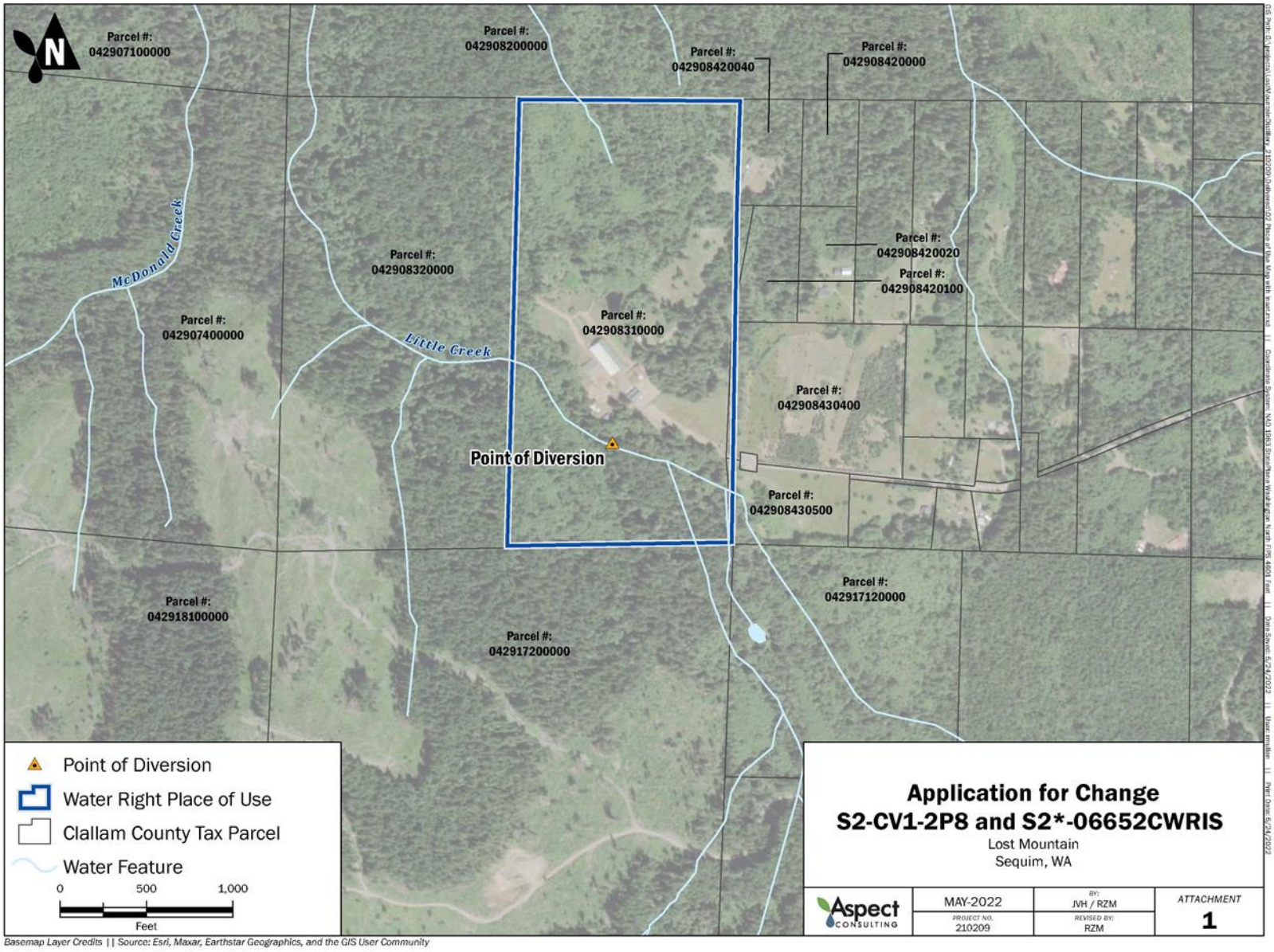
Datum: NAD83/WGS84

Jill E. Van Hulle

Jill Van Hulle, Aspect Consulting *Date*

Tammy Hall, L.HG., Department of Ecology *Date*

To request ADA accommodation including materials in a format for the visually impaired, call Ecology Water Resources Program at 360-407-6872. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.


N
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Parcel #: 042908200000
Parcel #: 042908420040
Parcel #: 042908420000
McDonald Creek
Parcel #: 042908320000
Parcel #: 042908420020
Parcel #: 042908420100
Parcel #: 042907400000
Little Creek
Parcel #: 042908310000
Parcel #: 042908430400
Point of Diversion
Parcel #: 042908430500
Parcel #: 042917120000
Parcel #: 042918100000
Parcel #: 042917200000
Point of Diversion
Water Right Place of Use
Clallam County Tax Parcel
Water Feature
0
500
1,000
Feet
Application for Change
S2-CV1-2P8 and S2*-06652CWRIS
Lost Mountain
Sequim, WA
Aspect CONSULTING
MAY-2022
PROJECT NO. 210209
BY: JVH / RZM
REVISED BY: RZM
ATTACHMENT 1
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