Sewall Wetland Consulting, Inc.
Po Box 880
Fall City, WA 98024
Phone: 253-859-0515

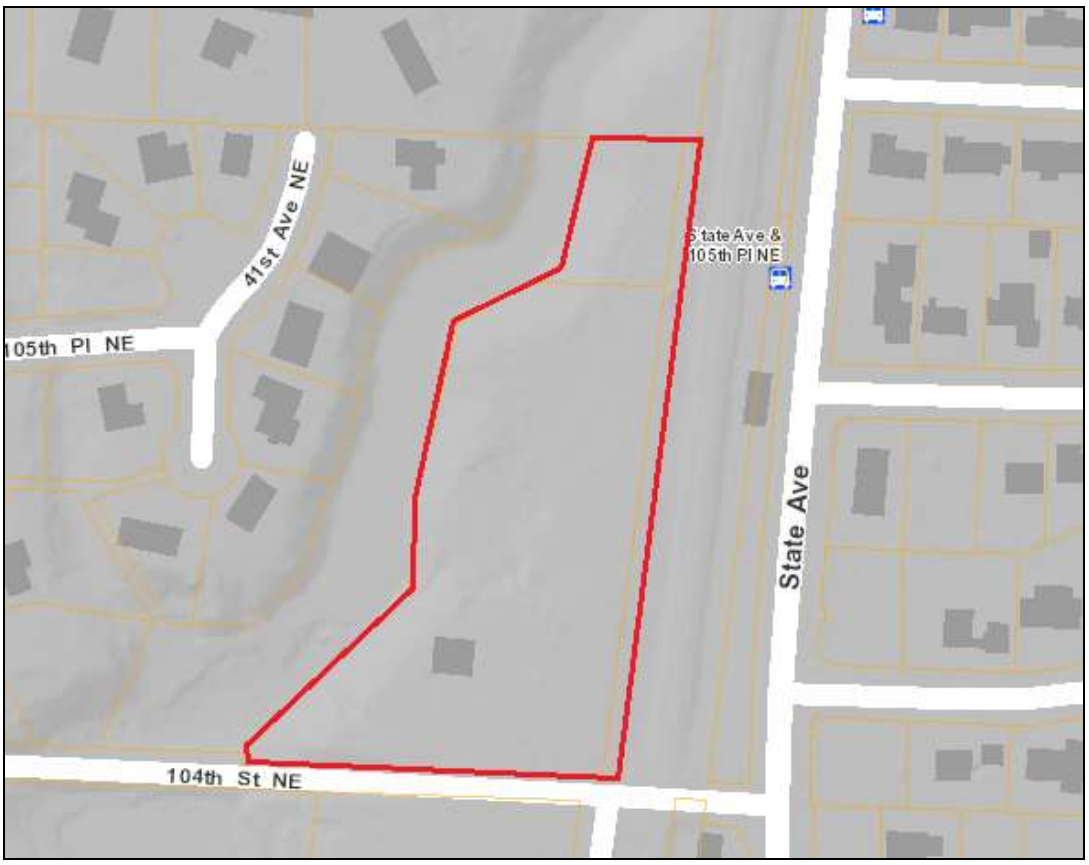
August 24, 2020

Joel Hylback
16720 Smokey Point Blvd. Suite 3
Arlington, Washington 98223

RE: BLA Critical Areas Report – Parcels #30051600200100, 200 & 300
SWC Job #20-149

Dear Joel,

This report describes our observations of any jurisdictional wetlands, streams and buffers on or within 300' of Parcels #30051600200100 , 200 & 300, located at 4131 104th Street NE in the City of Marysville, Washington (the "site").



Above: Vicinity map of site

Vicinity Map of site depicting Parcels #30051600200100, 200 & 300.

The 3.93 acre site is located in the NW ¼ of Section 16, Township 30 North, Range 05 east of the W.M.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site on September 10, 2018 as well as August 13, 2020.

The site was reviewed using methodology described in the *Washington State Wetlands Identification Manual* (WADOE, March 1997). This is the methodology currently recognized by the City of Marysville and the State of Washington for wetland determinations and delineations. The site was also inspected using the methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Western Mountains, Valleys and Coast region Supplement* (Version 2.0)

dated June 24, 2010, as required by the US Army Corps of Engineers. Soil colors were identified using the 1990 Edited and Revised Edition of the Munsell Soil Color Charts (Kollmorgen Instruments Corp. 1990).

Soil colors were identified using the 1990 Edited and Revised Edition of the ***Munsell Soil Color Charts*** (Kollmorgen Instruments Corp. 1990).

OBSERVATIONS

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the National Wetland Inventory Map, the NRCS Soil Survey online mapping and Data WADNR Fpars stream mapping and WDFW Priority Habitats mapping website.

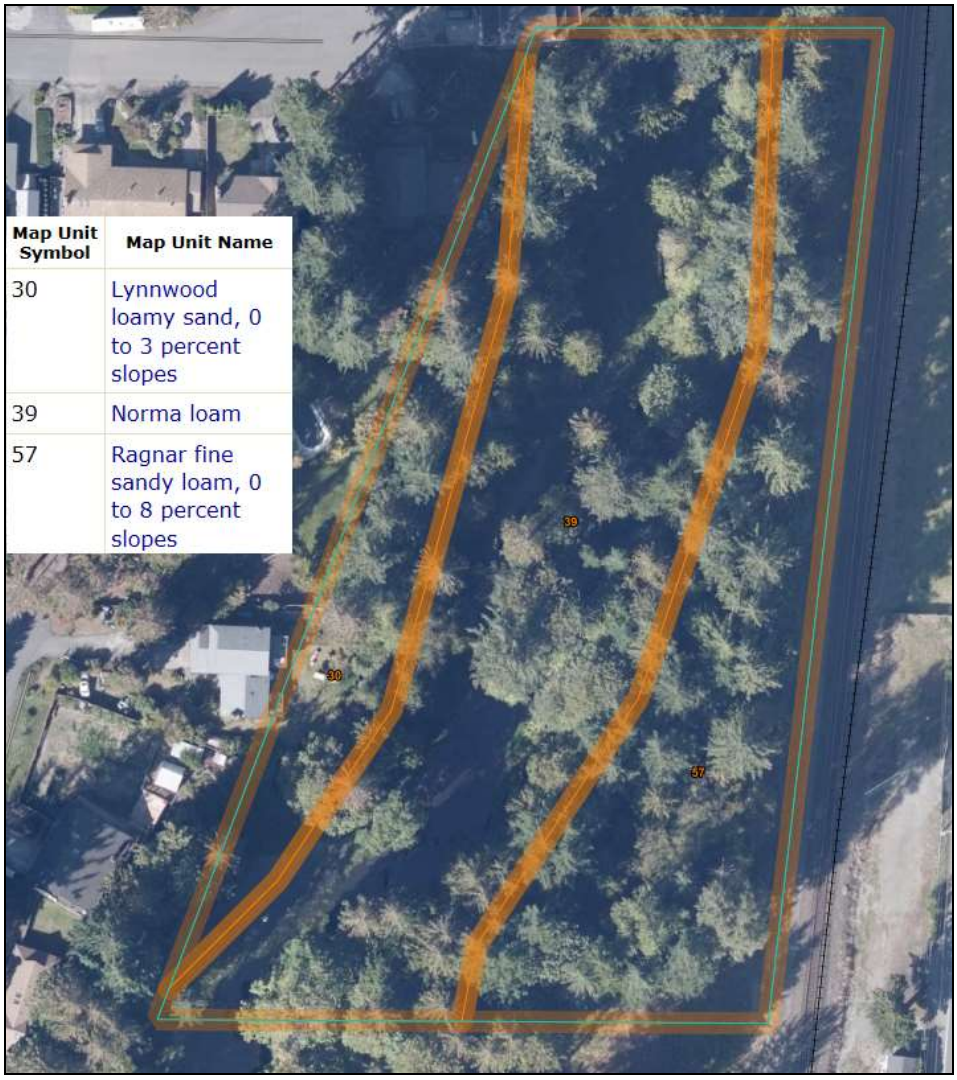
Snohomish County PDS Critical Areas Mapping

The Snohomish County PDS mapping of the site depicts a “non-fish habitat seasonal stream” as well as associated wetland along the western side of the site.

Above: Snohomish PDS mapping of the site.

Soil Survey

According to data on file with the on-line NRCS Soil Survey, the site is mapped as Ragnar fine sandy loam on the east and Norma loam on the west. Norma soils are poorly drained soils that are considered a wetland or hydric soil.



Above: USDA Soil Survey Map of the site

National Wetlands Inventory (NWI)

According to the NWI map for the site there are no wetlands on the site. A stream is depicted along the west side of the site as well as an unconsolidated bottom area that is permanently flooded and diked or impounded (PUBHh).

Above: National Wetlands Inventory Map of the site.

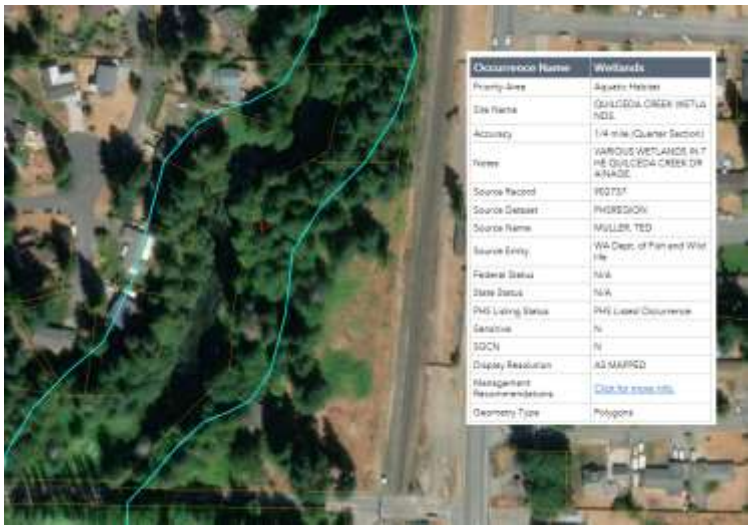
WADNR Fpars Stream Mapping

The Washington Department of Natural Resources Fpars stream type mapping website depicts A Type N stream passing through a Type F pond type feature on the western side of the site.

Above: WADNR Fpars stream mapping

WDFW Priority Habitats

According to the WDFW Priority Habitats mapping website, there are wetlands associated with a tributary of Quilceda Creek on the western side of the site.



Above: WDFW Priority Habitats Map of the site (Note: the purple dot is used to bring up what the shading is on the site and is not a point location of any species or habitat).

Field observations

Uplands

The site consists of a large parcel on the south with an existing single family home and outbuilding, as well as lawn and landscaped areas to the east. A smaller, abutting forested parcel is located to the north as well as a very narrow Parcel along the railroad tracks.

The site is a flat on the east and then slopes steeply to the west to an impounded stream area with associated wetland along the western boundary of the site.

The forested area contains some large douglas firs as well as cedar, big leaf maple and a dense understory of Himalayan blackberry with some Indian plum, vine maple, salmonberry and sward fern.

Soil pits excavated throughout the upland portions of the site revealed a mix of dry, gravelly loams with soil colors of 7.5YR 2.5/3.

Wetlands & Streams

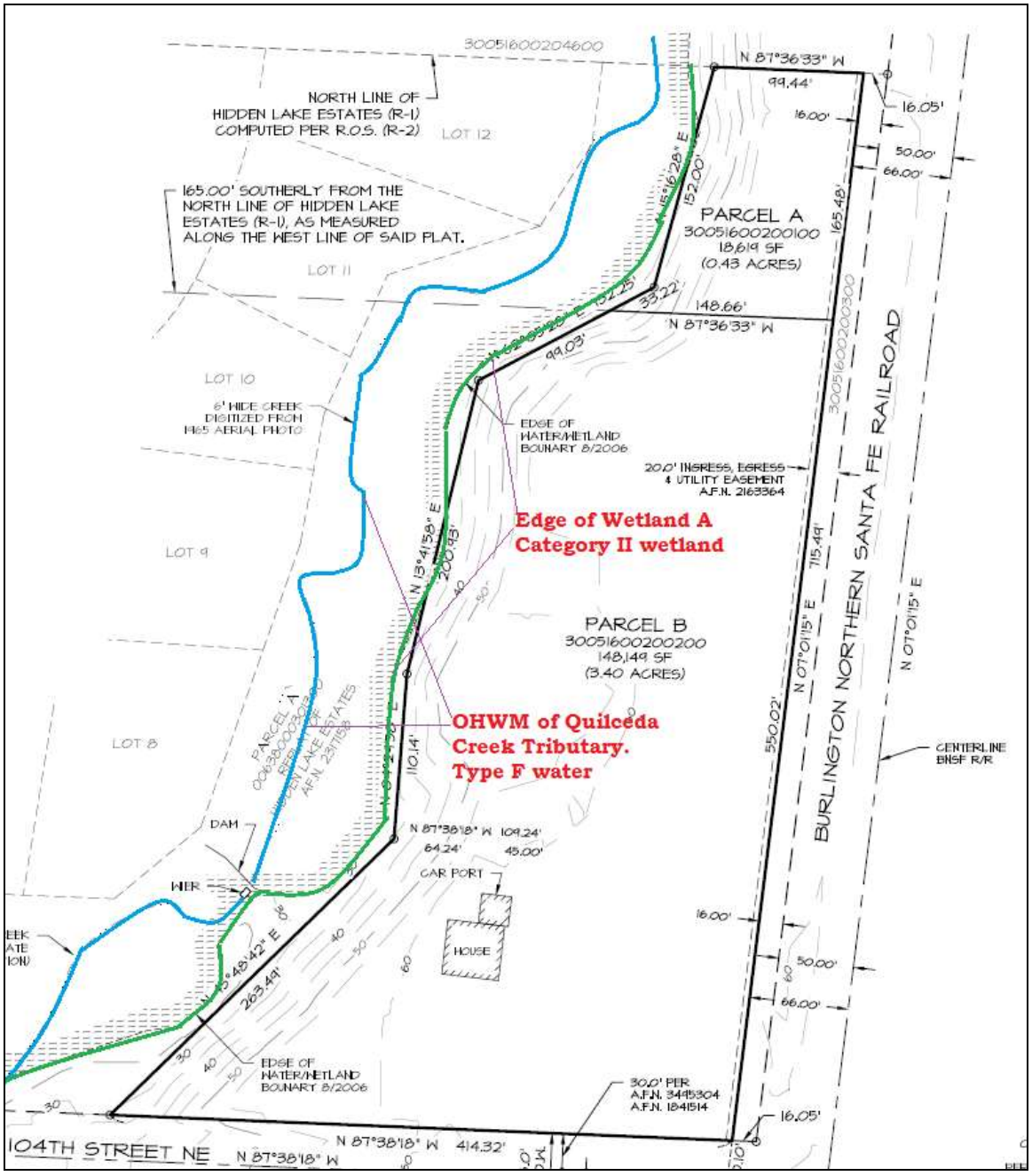
As previously noted, an impounded tributary to Quilceda Creek passes along the western side of the site. This results in a wetland area surrounding the original creek channel that floods in the winter and wet season.

Below is a description of these areas;

Wetland A

Wetland A is a linear wetland that appears to be created from the historic impoundment of the tributary. This wetland area includes areas that are aquatic bed, scrub shrub and emergent wetland. The edge of this wetland was flagged with blue flags along the eastern edge of the feature.

The wetland was observed to contain, reed canary grass, water cress, hardhack, red-osier dogwood, sitka willow and black cottonwood and red alder.



Above: Wetland and stream mapping on and near the site.

Soil pits excavated in the wetland revealed a mix of dark, mucky gravelly loam soils near the edge and some sapric muck with colors of 10YR 3/2 with common, medium, distinct redoximorphic concentrations. Soils were inundated with up to 6" of standing water.

Using the US Fish and Wildlife Wetland Classification Method (Cowardin et al. 1979), Wetland A would be classified as PABH, PSS1C and PFO1C.

Using the 2014 WADOE Wetland Rating system and rating Wetland A as a riverine type wetland, the wetlands scored a total of 22 points with 7 for habitat. This indicates a Category II wetland. Category II wetlands the City of Marysville have a 100' buffer measured from the wetland edge (MMC 22E.010.100.4).

Quilceda Tributary

The tributary of Quilceda Creek that passes through the site is located off-site to the west within Wetland A. This stream is considered a Type F water. According to MMC 22E.0101.220.1, Type F waters have a 150' buffer measured from the OHWM of the creek. This buffer is generally located within the 100' buffer of Wetland A on the site.

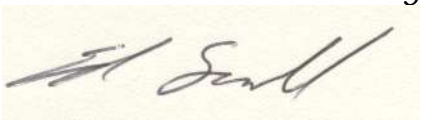
Regulations

In addition to the wetland regulations previously described for wetlands in Snohomish County, certain activities (filling and dredging) within "waters of the United States" may fall under the jurisdiction of the US Army Corps of Engineers (ACOE). The ACOE regulates all discharges into "waters of the United States" (wetlands) under Section 404(b) of the Clean Water Act.

Due to the increasing emphasis on Endangered Species Act compliance for all fills of Waters of the United State and Waters of the State, both the Corps of Engineers and Washington Department of Ecology should be contacted regarding permit conditions, compliance, and processing prior to commitment to any fill of wetlands or streams for this project.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com .

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetlands Ecologist PWS #212

Attached: Data Sheets
Rating Forms and exhibits

REFERENCES

Cowardin, L., V. Carter, F. Golet, and E. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, FWS/OBS-79-31, Washington, D. C.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. U. S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.

Muller-Dombois, D. and H. Ellenberg. 1974. Aims and Methods of Vegetation Ecology. John Wiley & Sons, Inc. New York, New York.

Munsell Color. 1988. Munsell Soil Color Charts. Kollmorgen Instruments Corp., Baltimore, Maryland.

National Technical Committee for Hydric Soils. 1991. Hydric Soils of the United States. USDA Misc. Publ. No. 1491.

Reed, P., Jr. 1988. National List of Plant Species that Occur in Wetlands: Northwest (Region 9). 1988. U. S. Fish and Wildlife Service, Inland Freshwater Ecology Section, St. Petersburg, Florida.

Reed, P.B. Jr. 1993. 1993 Supplement to the list of plant species that occur in wetlands: Northwest (Region 9). USFWS supplement to Biol. Rpt. 88(26.9) May 1988.

City of Marysville Municipal Code

USDA NRCS & National Technical Committee for Hydric Soils, September 1995. Field Indicators of Hydric Soils in the United States - Version 2.1

DECLARATION

THE SIGNATURES OF OWNER, OR OWNERS, OF THE PROPERTY SUBJECT TO THE BOUNDARY LINE ADJUSTMENT, DECLARING THAT THEY ARE SOLELY RESPONSIBLE FOR SECURING AND EXECUTING ALL NECESSARY LEGAL ADVICE OR ASSISTANCE CONCERNING THE LEGAL DOCUMENTS NECESSARY TO TRANSFER TITLE TO THOSE PORTIONS OF THE PROPERTIES INVOLVED IN THE BOUNDARY LINE ADJUSTMENT; AND A DECLARATION THAT THE LEGAL DOCUMENTS NECESSARY TO TRANSFER TITLE TO THE PROPERTY IN QUESTION HAVE BEEN PREPARED AND EXECUTED SO THAT, UPON THE RECORDING OF THE BOUNDARY LINE ADJUSTMENT, THE TITLE TO THE PROPERTIES WILL ACCURATELY REFLECT THE NEW CONFIGURATION RESULTING FROM THE BOUNDARY LINE ADJUSTMENT AS APPROVED BY THE CITY.

KNOW ALL PERSONS BY THEIR PRESENTS THAT WE THE UNDERSIGNED OWNERS, OR LEGAL REPRESENTATIVES, OF THE LAND HEREIN DESCRIBED, DO HEREBY MAKE A LOT LINE REVISION THEREOF AND DECLARE THIS REVISION BE THE GRAPHIC REPRESENTATION OF SAME, AND THAT SAID REVISION IS MADE WITH FREE CONSENT AND IN ACCORDANCE WITH THE DESIRE OF THE OWNERS, IN WITNESS WHEREOF WE HAVE SET OUR HANDS AND SEALS.

DATED THIS _____ DAY OF _____, 2020.

BY:_____ TITLE:_____.
104TH STREET LLC, (PARCEL A)
A WASHINGTON LIMITED LIABILITY COMPANY

_____.
JOEL HYLBACK (PARCEL B)

_____.
ANTON DOWNS (PARCEL B)

ACKNOWLEDGMENTS

STATE OF WASHINGTON)
)
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT

_____ IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT HE/SHE SIGNED THIS INSTRUMENT

AND ACKNOWLEDGED IT AS THE _____ OF THE 104TH STREET LLC, A WASHINGTON LIMITED LIABILITY COMPANY TO BE HIS/HER FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATE:_____

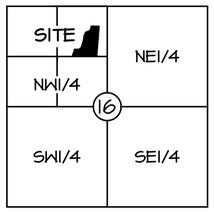
SIGNATURE:_____

PRINT NAME:_____
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON,

RESIDING IN _____

MY APPOINTMENT EXPIRES _____

INDEX MAP



SECTION 16 TWP.30 N., RGE.05 E., W.M.

STATE OF WASHINGTON)
)
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT JOEL HYLBACK, A SINGLE MAN, IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT HE SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE HIS FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATE:_____

SIGNATURE:_____

PRINT NAME:_____
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON,

RESIDING IN _____

MY APPOINTMENT EXPIRES _____

STATE OF WASHINGTON)
)
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT ANTON DOWNS, A SINGLE MAN, IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT HE SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE HIS FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATE:_____

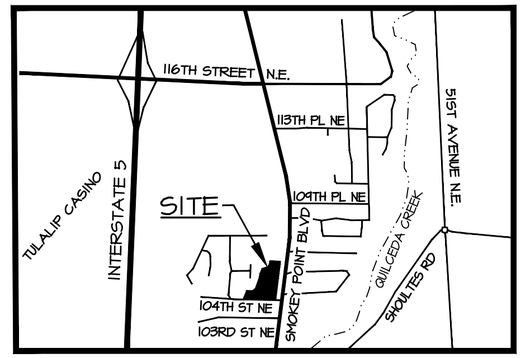
SIGNATURE:_____

PRINT NAME:_____
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON,

RESIDING IN _____

MY APPOINTMENT EXPIRES _____

SHEET INDEX



VICINITY MAP

SCALE: 1" = 2000'

CERTIFICATE FOR CITY

EXAMINED, FOUND TO BE IN CONFORMITY WITH APPLICABLE ZONING AND

OTHER LAND USE CONTROLS, AND APPROVED THIS_____ DAY OF_____, 2020.

_____
COMMUNITY DEVELOPMENT DIRECTOR

TREASURER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL STATE AND COUNTY TAXES HERETOFORE LEVIED AGAINST THE PROPERTY DESCRIBED HEREIN, ACCORDING TO THE BOOKS AND RECORDS OF MY OFFICE, HAVE BEEN FULLY PAID AND DISCHARGED,

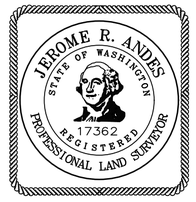
INCLUDING _____ TAXES.

_____
TREASURER, SNOHOMISH COUNTY

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS BOUNDARY LINE ADJUSTMENT IS BASED UPON AN ACTUAL SURVEY AND SUBDIVISION OF SECTION 16, TOWNSHIP 30 NORTH, RANGE 5 EAST, W.M.; THAT THE DISTANCES, COURSES AND ANGLES ARE SHOWN THEREON CORRECTLY; THAT THE MONUMENTS SHALL BE SET AND CORNERS SHALL BE STAKED CORRECTLY ON THE GROUND; THAT I FULLY COMPLIED WITH THE PROVISIONS OF THE STATE AND LOCAL STATUTES AND REGULATIONS GOVERNING SURVEYING.

_____
JEROME R. ANDES, P.L.S. 17362



AUDITOR'S CERTIFICATE

FILED FOR RECORD AT THE REQUEST OF 104TH STREET LLC, THIS

_____ DAY OF _____, 2020, AT _____ MINUTES PAST __.M.,

AND RECORDED IN VOLUME _____ OF SURVEYS, PAGE _____,

_____
AUDITOR, SNOHOMISH COUNTY

BY: _____
DEPUTY COUNTY AUDITOR

A.F.N. _____

CITY OF MARYSVILLE BLA NO. 20-___ REV. 01 JSM 6/4/20

ANDES
LAND SURVEYING, P.S.
1523 TENTH ST,
MARYSVILLE, WA 98270
PHONE: 425-350-5063

DRAWN BY: JSM
CHECKED: JRA
DATE: FEB 2020

JOB DATA: 3005-16.48
202002
[JOEL1701] FB = FILE
3005-16.48 104LLC BLA 6-4-20.pdf

RECORD OF SURVEY
BOUNDARY LINE ADJUSTMENT

FOR

104TH STREET LLC
A WASHINGTON LIMITED LIABILITY COMPANY

A PORTION OF N.E.1/4 N.W.1/4
SECTION 16, TOWNSHIP 30 NORTH, RANGE 05 EAST, W.M.
CITY OF MARYSVILLE, STATE OF WASHINGTON

LEGAL DESCRIPTIONS BEFORE

PARCEL A: *(300516-002-001-00)*

THAT PORTION OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 30 NORTH, RANGE 5 EAST., W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY LINE OF REPLAT OF HIDDEN LAKE ESTATES ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 34 OF PLATS, PAGE 40, RECORDS OF SNOHOMISH COUNTY WASHINGTON, THAT IS 165.00 FEET SOUTHERLY FROM THE NORTHWEST CORNER OF SAID PLAT;

THENCE NORTHERLY, ALONG SAID WESTERLY LINE TO SAID NORTHWEST CORNER;

THENCE EASTERLY, ALONG THE NORTHERLY LINE OF SAID PLAT AND ITS EASTERLY PROJECTION, TO THE WESTERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN SANTA FE RAILROAD;

THENCE SOUTHERLY, ALONG SAID RIGHT-OF-WAY LINE, TO A LINE THAT IS EASTERLY FROM, AS MEASURED PARALLEL WITH THE NORTH LINE OF SAID PLAT AND ITS EASTERLY PROJECTION, FROM THE POINT OF BEGINNING;

THENCE WESTERLY, ALONG SAID LINE TO THE POINT OF BEGINNING;

EXCEPT THE EASTERLY 16.00 FEET, AS MEASURED PERPENDICULAR TO AND PARALLEL WITH THE EAST LINE THEREOF;

ALSO EXCEPT THAT PORTION LYING WESTERLY OF THE EASTERLY LINE OF PARCEL A, SAID REPLAT OF HIDDEN LAKE ESTATES.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

PARCEL B: *(300516-002-002-00)*

THAT PORTION OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 30 NORTH, RANGE 5 EAST., W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY LINE OF REPLAT OF HIDDEN LAKE ESTATES ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 34 OF PLATS, PAGE 40, RECORDS OF SNOHOMISH COUNTY WASHINGTON, THAT IS 165.00 FEET SOUTHERLY FROM THE NORTHWEST CORNER OF SAID PLAT;

THENCE SOUTHERLY, ALONG THE WESTERLY LINE OF SAID PLAT, TO THE NORTH LINE OF 104TH STREET NE;

THENCE EASTERLY, ALONG THE NORTH LINE OF SAID 104TH STREET NE, TO THE WESTERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN SANTA FE RAILROAD;

THENCE NORTHERLY, ALONG SAID RIGHT-OF-WAY LINE, TO A LINE THAT IS EASTERLY FROM, AS MEASURED PARALLEL WITH THE NORTH LINE OF SAID PLAT AND ITS EASTERLY PROJECTION, FROM THE POINT OF BEGINNING;

THENCE WESTERLY, ALONG SAID LINE TO THE POINT OF BEGINNING;

EXCEPT THE EASTERLY 16.00 FEET, AS MEASURED PERPENDICULAR TO AND PARALLEL WITH THE EAST LINE THEREOF;

ALSO EXCEPT THAT PORTION LYING WESTERLY OF THE EASTERLY LINE OF PARCEL A, SAID REPLAT OF HIDDEN LAKE ESTATES.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

(LEGAL DESCRIPTIONS PER CHICAGO TITLE INSURANCE COMPANY GUARANTEE/CERTIFICATE NUMBER 500947120A AMENDMENT 1, DATED MAY 26, 2020)

CONVEYANCE DOCUMENT

CONVEYANCE PARCEL B TO PARCEL A RECORDED UNDER AUDITOR'S FILE

NUMBER _____, RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

LEGAL DESCRIPTIONS AFTER

LOT 1 AFTER CONVEYANCE

LOT 1, CITY OF MARYSVILLE BOUNDARY LINE ADJUSTMENT BLA 20-_____,

RECORDED UNDER AUDITOR'S FILE NUMBER _____, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, BEING A PORTION OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 30 NORTH, RANGE 5 EAST, W.M.

LOT 2 AFTER CONVEYANCE

LOT 2, CITY OF MARYSVILLE BOUNDARY LINE ADJUSTMENT BLA 20-_____,

RECORDED UNDER AUDITOR'S FILE NUMBER _____, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, BEING A PORTION OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 30 NORTH, RANGE 5 EAST, W.M.

BASIS OF BEARING

1. WASHINGTON STATE CORRDINATE SYSTEM, NORTH ZONE
2. HELD MONUMENT FOR COORDINATE BASE; W.G.S. SURVEY DATA WAREHOUSE DESIGNATION 2706-13-7, DATA BASE ID: 21080

   MONUMENT FOR ROTATION; W.G.S. SURVEY DATA WAREHOUSE DESIGNATION 2706-13-6, DATA BASE ID: 23044
3. DISTANCES SHOWN HEREON ARE GROUND DISTANCES. GRID X 1.000057655 TO GROUND. GROUND X 0.999942349 TO GRID.

REFERENCES

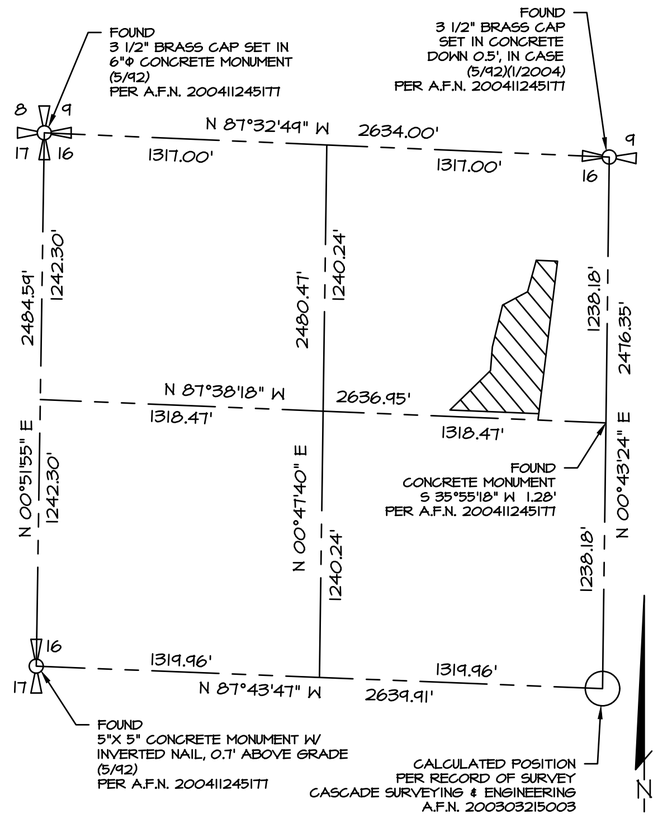
R-1: PLAT OF HIDDEN LAKE ESTATES; A.F.N. 1973623.

R-2: RECORD OF SURVEY; A.F.N. 8310255002.

FIELD PROCEDURES AND INSTRUMENTATION

THE METHOD OF SURVEY WAS FIELD TRAVERSE WITH A LEICA TS12, ROBOTIC TOTAL STATION.

THE LINEAR AND ANGULAR CLOSURE OF THIS SURVEY MEETS OR EXCEEDS THE STANDARDS SET FORTH IN W.A.C. 332-130-090.



1/4 SECTION SUBDIVISION
SCALE: 1" = 500'

SHEET INDEX

CITY OF MARYSVILLE BLA NO. 20-____ REV. 01 JSM 6/4/20

JEROME R. ANDES
STATE OF WASHINGTON
17362
REGISTERED
PROFESSIONAL LAND SURVEYOR

ANDES
LAND SURVEYING, P.S.
1523 TENTH ST,
MARYSVILLE, WA 98270
PHONE: 425-350-5063

DRAWN BY: JSM
CHECKED: JRA
DATE: FEB 2020

JOB DATA: 3005-16.48
202002
[JOEL1701] FB = FILE
3005-16.48 104LLC BLA 6-4-20.pdf

RECORD OF SURVEY
BOUNDARY LINE ADJUSTMENT

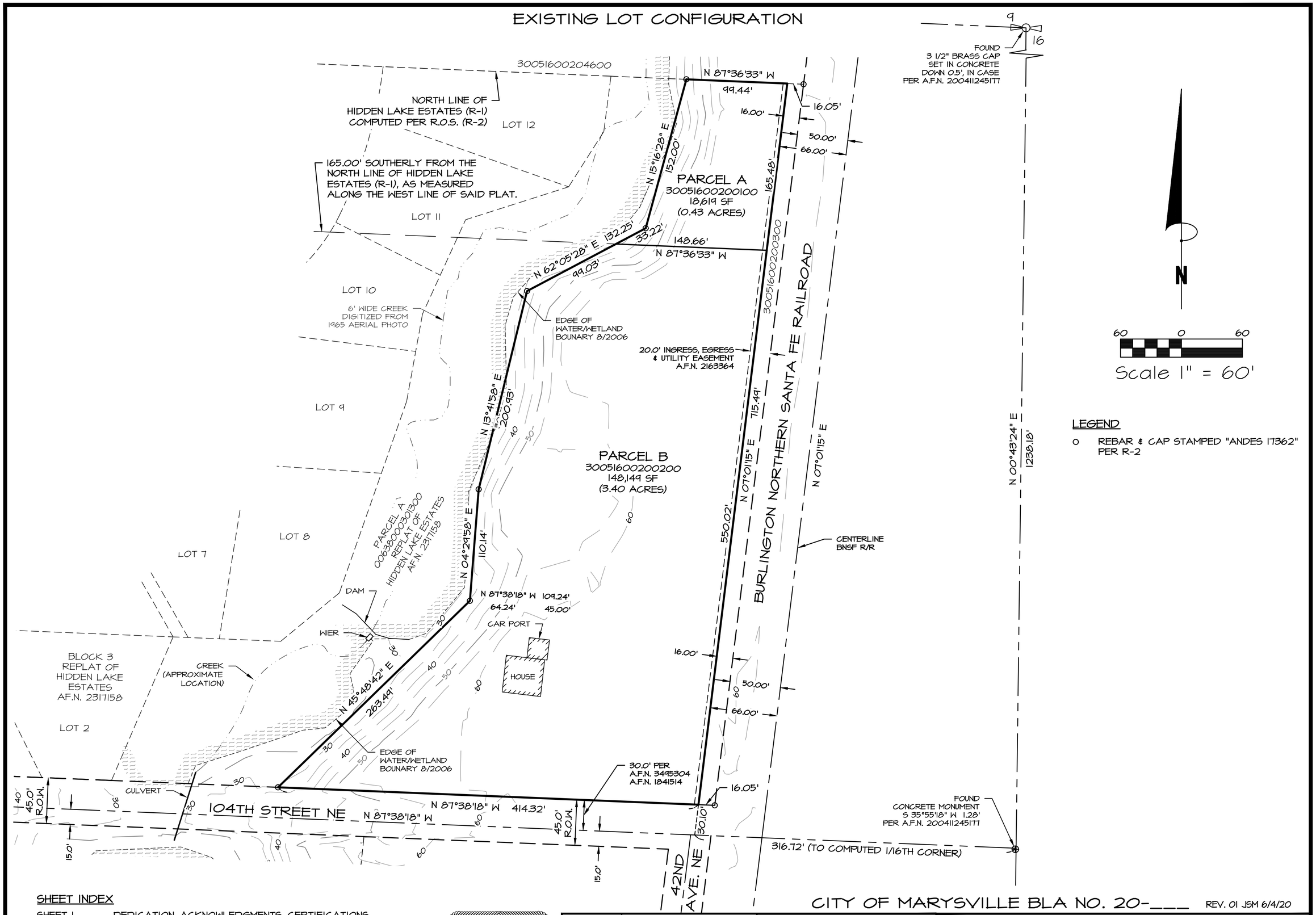
FOR

104TH STREET LLC
A WASHINGTON LIMITED LIABILITY COMPANY

A PORTION OF N.E.1/4 N.W.1/4
SECTION 16, TOWNSHIP 30 NORTH, RANGE 05 EAST, W.M.
CITY OF MARYSVILLE, STATE OF WASHINGTON

A.F.N. _____

EXISTING LOT CONFIGURATION



LEGEND

o REBAR & CAP STAMPED "ANDES 17362" PER R-2

SHEET INDEX

A.F.N. _____

JEROME R. ANDES STATE OF WASHINGTON 17362 REGISTERED PROFESSIONAL LAND SURVEYOR

CITY OF MARYSVILLE BLA NO. 20-___ REV. 01 JSM 6/4/20

ANDES
LAND SURVEYING, P.S.
1523 TENTH ST,
MARYSVILLE, WA 98270
PHONE: 425-350-5063

DRAWN BY: JSM
CHECKED: JRA
DATE: MAY 2020

JOB DATA: 3005-16.48
2020-01
[JOEL1701] FB = FILE
3005-16.48 104LLC BLA 6-4-20.pdf

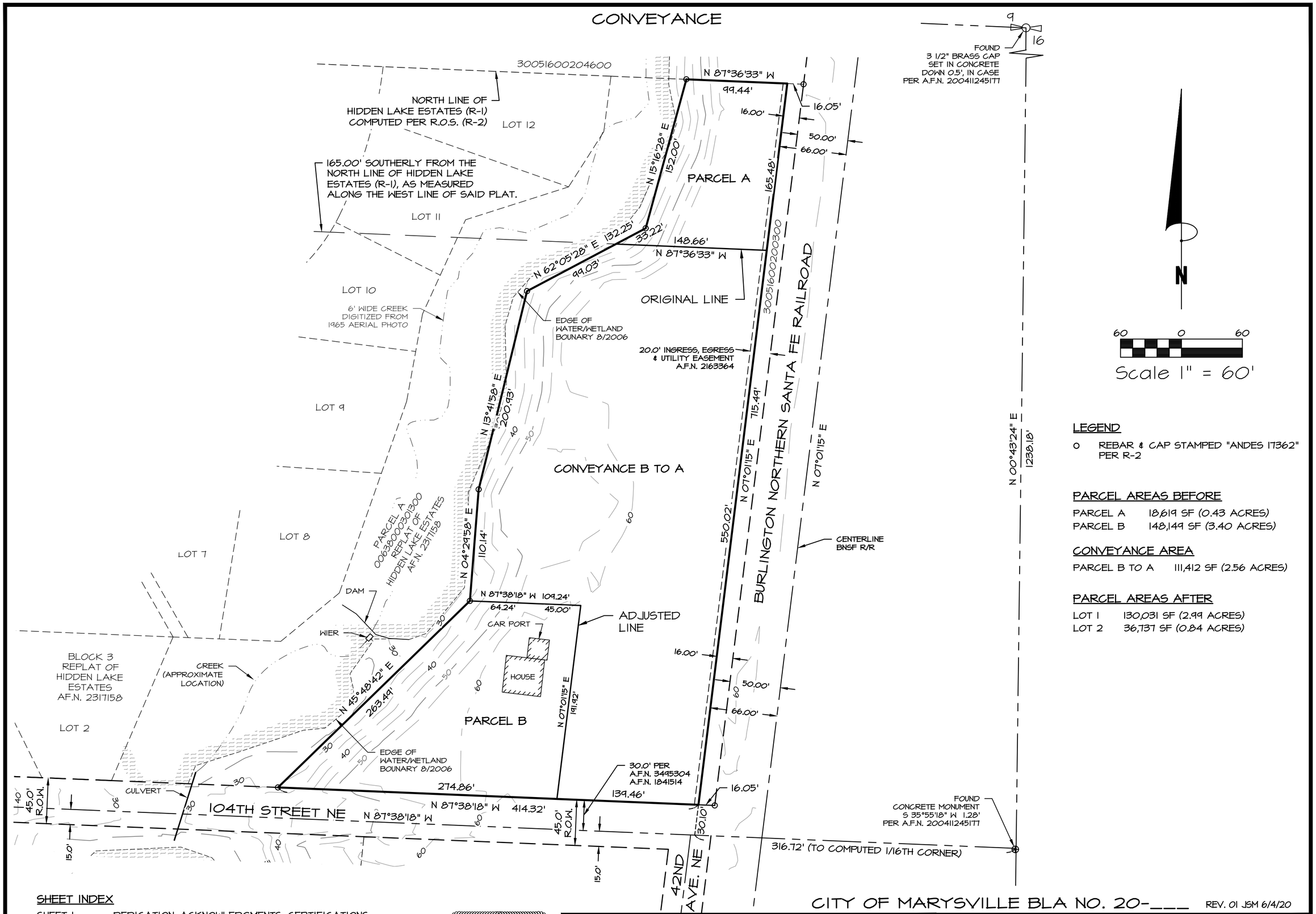
RECORD OF SURVEY BOUNDARY LINE ADJUSTMENT

FOR

104TH STREET LLC
A WASHINGTON LIMITED LIABILITY COMPANY

A PORTION OF N.E.1/4 N.W.1/4
SECTION 16, TOWNSHIP 30 NORTH, RANGE 05 EAST, W.M.
CITY OF MARYSVILLE, STATE OF WASHINGTON

CONVEYANCE



LEGEND

o REBAR & CAP STAMPED "ANDES 17362" PER R-2

PARCEL AREAS BEFORE

PARCEL A	18,619 SF (0.43 ACRES)
PARCEL B	148,149 SF (3.40 ACRES)

CONVEYANCE AREA

PARCEL B TO A	111,412 SF (2.56 ACRES)

PARCEL AREAS AFTER

LOT 1	130,031 SF (2.99 ACRES)
LOT 2	36,737 SF (0.84 ACRES)

SHEET INDEX

A.F.N. _____

JEROME R. ANDES STATE OF WASHINGTON 17362 REGISTERED PROFESSIONAL LAND SURVEYOR

ANDES
LAND SURVEYING, P.S.
1523 TENTH ST,
MARYSVILLE, WA 98270
PHONE: 425-350-5063

DRAWN BY: JSM	JOB DATA: 3005-16.48 2020-01
CHECKED: JRA	[JOEL1701] FB = FILE
DATE: MAY 2020	3005-16.48 104LLC BLA 6-4-20.pdf

CITY OF MARYSVILLE BLA NO. 20-____ REV. 01 JSM 6/4/20

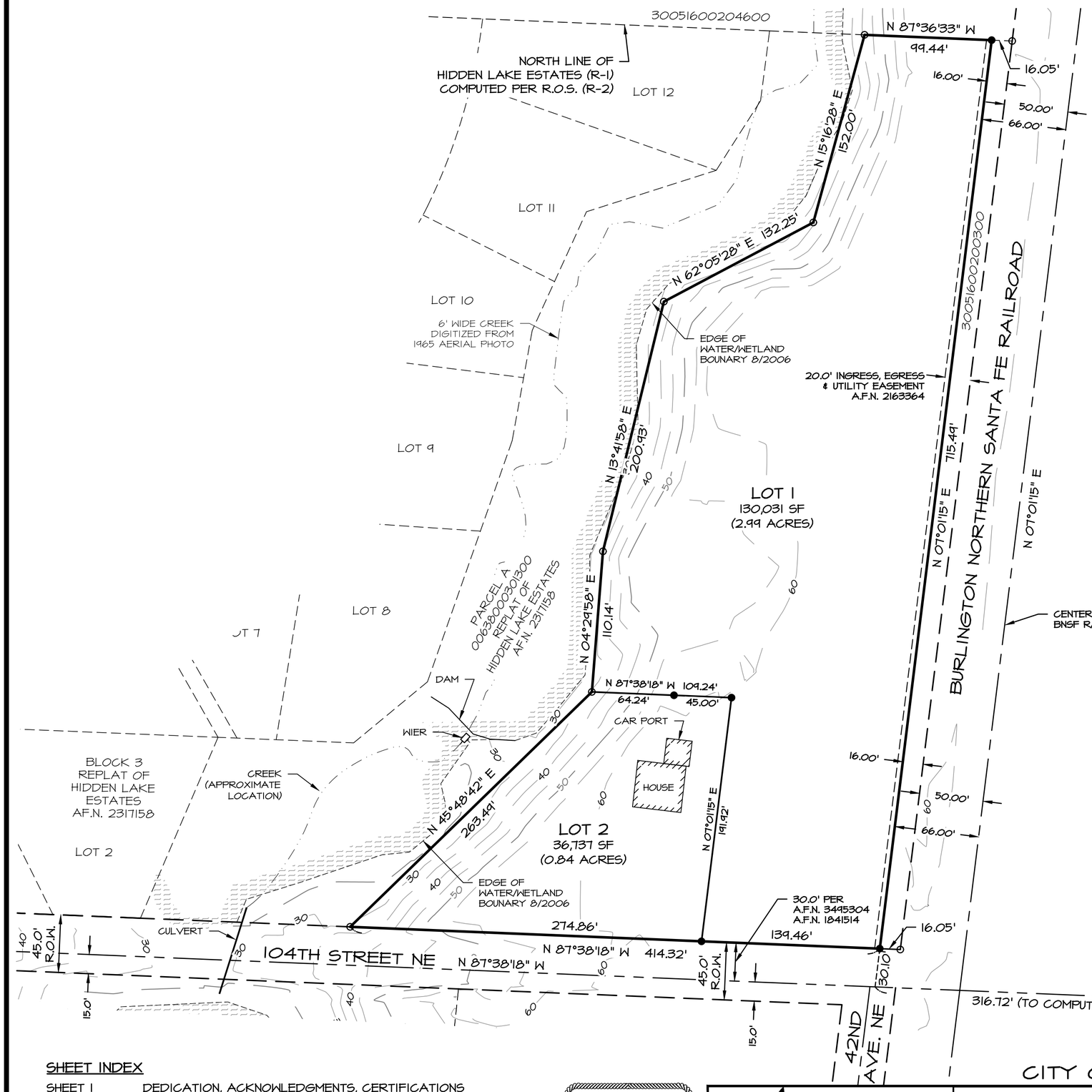
RECORD OF SURVEY BOUNDARY LINE ADJUSTMENT

FOR

104TH STREET LLC
A WASHINGTON LIMITED LIABILITY COMPANY

A PORTION OF N.E.1/4 N.W.1/4
SECTION 16, TOWNSHIP 30 NORTH, RANGE 05 EAST, W.M.
CITY OF MARYSVILLE, STATE OF WASHINGTON

LOT CONFIGURATION AFTER CONVEYANCE



LEGEND

- o REBAR & CAP STAMPED "ANDES 17362" PER R-2
- ● SET 1/2"X 24" REBAR & YELLOW CAP STAMPED "ANDES 17362" (6/2020)

SHEET INDEX

A.F.N. _____

JEROME R. ANDES — STATE OF WASHINGTON — 17362 — REGISTERED PROFESSIONAL LAND SURVEYOR

CITY OF MARYSVILLE BLA NO. 20-____ REV. 01 JSM 6/4/20

ANDES
LAND SURVEYING, P.S.
1523 TENTH ST,
MARYSVILLE, WA 98270
PHONE: 425-350-5063

DRAWN BY: JSM
CHECKED: JRA
DATE: MAY 2020

JOB DATA: 3005-16.48
2020-01
[JOEL1701] FB = FILE
3005-16.48 104LLC BLA 6-4-20.pdf

RECORD OF SURVEY BOUNDARY LINE ADJUSTMENT

FOR

104TH STREET LLC
A WASHINGTON LIMITED LIABILITY COMPANY

A PORTION OF N.E.1/4 N.W.1/4
SECTION 16, TOWNSHIP 30 NORTH, RANGE 05 EAST, W.M.
CITY OF MARYSVILLE, STATE OF WASHINGTON

wetA

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Hylback BLA City/County: Marysville Sampling Date: 9-10-18

Applicant/Owner: State: WA Sampling Point: DP#1

Investigator(s): JH Scott Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):

Subregion (LRR): Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No	**Is the Sampled Area within a Wetland?** ✓ Yes No
Hydric Soil Present?	Yes ✓	No	
Wetland Hydrology Present?	Yes	No	

Remarks: impounded wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. Cornus stolonifera	80		FACW
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. Phalaris arundinacea	75		FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ✓ Yes No

Remarks:

SOIL

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
16	10YR 2/2		C M				SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ✓ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): ~14

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Hylback BLA City/County: Marysville Sampling Date: 9-10-18

Applicant/Owner: State: WA Sampling Point: DP#2

Investigator(s): Ed Sewell Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):

Subregion (LRR): Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer macrophyllum	50		FACU
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. Rubus discolor	90		FAC
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species 50	x 3 = 150
FACU species 50	x 4 = 200
UPL species ____	x 5 = ____
Column Totals: 100 (A)	350 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: DP#2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
2	duff							
16	7.5YR 2.5/3						gsl	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

no indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

no indicators

wet A

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Hayback BLA City/County: Marysville Sampling Date: 9-10-18

Applicant/Owner: State: WA Sampling Point: DP#3

Investigator(s): SD Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):

Subregion (LRR): Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Phalaris arundinacea	60		FACW
2. Oenanthe sarmentosa	20		OBL
3. Equisetum arvense	20		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ✓ Yes ____ No ____

Remarks:

SOIL

Sampling Point: DP#3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
6	10YR 2/1						Sapric	muck
16	10YR 2/1						SiC	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ✓ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): ~12"

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland name or number ____

RATING SUMMARY – Western Washington

Name of wetland (or ID #): BLA Wet A Date of site visit: 9-10-18 & 8-14-20

Rated by Ed Sarell Trained by Ecology? ✓ Yes ___ No Date of training ____

HGM Class used for rating Riverine Wetland has multiple HGM classes? ___ Y ✓ N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map ____

OVERALL WETLAND CATEGORY II (based on functions ___ or special characteristics ___)

1. Category of wetland based on FUNCTIONS

___ **Category I** – Total score = 23 - 27

✓ **Category II** – Total score = 20 - 22

___ **Category III** – Total score = 16 - 19

___ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H (M) L	H (M) L	H (M) L	
Landscape Potential	(H) M L	(H) M L	H (M) L	
Value	(H) M L	H (M) L	(H) M L	TOTAL
Score Based on Ratings	8	7	7	22

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III ✓IV
None of the above	

Wetland name or number A

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet *(can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number ____

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

   NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

   1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

   NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

   *If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

   NO – go to 3 **YES** – The wetland class is **Flats**

   *If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   ___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

   NO – go to 4 **YES** – The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   ___The wetland is on a slope (*slope can be very gradual*),
   ___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   ___The water leaves the wetland **without being impounded**.

   NO – go to 5 **YES** – The wetland class is **Slope**

   NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   ___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ___The overbank flooding occurs at least once every 2 years.

Wetland name or number A

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

   NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

   NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

   NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number ____

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover > 3/4 area of wetland	points = 8	8
Depressions cover > ½ area of wetland	points = 4	
Depressions present but cover < ½ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, **not** Cowardin classes)		
Trees or shrubs > 2/3 area of the wetland	points = 8	
Trees or shrubs > 1/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > 2/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > 1/3 area of the wetland	points = 3	3
Trees, shrubs, and ungrazed herbaceous < 1/3 area of the wetland	points = 0	
Total for R 1	Add the points in the boxes above	11

Rating of Site Potential If score is: ___12-16 = H ___6-11 = M ___0-5 = L *Record the rating on the first page*

R 2.0. Does the landscape have the potential to support the water quality function of the site?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources _____	Yes = 1 No = 0	0
Total for R 2	Add the points in the boxes above	4

Rating of Landscape Potential If score is: ___3-6 = H ___1 or 2 = M ___0 = L *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to society?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	1
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (*answer YES if there is a TMDL for the drainage in which the unit is found*)	Yes = 2 No = 0	2
Total for R 3	Add the points in the boxes above	3

Rating of Value If score is: ___2-4 = H ___1 = M ___0 = L *Record the rating on the first page*

Wetland name or number A

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion

R 4.0. Does the site have the potential to reduce flooding and erosion?		
R 4.1. Characteristics of the overbank storage the wetland provides: *Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks).*		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	4
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	
R 4.2. Characteristics of plants that slow down water velocities during floods: *Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are NOT Cowardin classes).*		
Forest or shrub for > 1/3 area OR emergent plants > 2/3 area	points = 7	
Forest or shrub for > 1/10 area OR emergent plants > 1/3 area	points = 4	4
Plants do not meet above criteria	points = 0	
Total for R 4	Add the points in the boxes above	8

Rating of Site Potential If score is: ___12-16 = H ___6-11 = M ___0-5 = L *Record the rating on the first page*

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 No = 1	1
R 5.2. Does the up-gradient watershed include a UGA or incorporated area?	Yes = 1 No = 0	1
R 5.3. Is the up-gradient stream or river controlled by dams?	Yes = 0 No = 1	1
Total for R 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: ___3 = H ___1 or 2 = M ___0 = L *Record the rating on the first page*

R 6.0. Are the hydrologic functions provided by the site valuable to society?		
R 6.1. Distance to the nearest areas downstream that have flooding problems? *Choose the description that best fits the site.*		
The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	1
No flooding problems anywhere downstream	points = 0	
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for R 6	Add the points in the boxes above	1

Rating of Value If score is: ___2-4 = H ___1 = M ___0 = L *Record the rating on the first page*

Wetland name or number ____

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- ✓ Aquatic bed — 4 structures or more: points = 4
- ___ Emergent — 3 structures: points = 2
- ✓ Scrub-shrub (areas where shrubs have > 30% cover) — 2 structures: points = 1
- ___ Forested (areas where trees have > 30% cover) — 1 structure: points = 0

If the unit has a Forested class, check if:

- ___ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

2

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

- ___ Permanently flooded or inundated — 4 or more types present: points = 3
- ✓ Seasonally flooded or inundated — 3 types present: points = 2
- ___ Occasionally flooded or inundated — 2 types present: points = 1
- ___ Saturated only — 1 type present: points = 0
- ___ Permanently flowing stream or river in, or adjacent to, the wetland
- ✓ Seasonally flowing stream in, or adjacent to, the wetland
- ___ **Lake Fringe wetland** — **2 points**
- ___ **Freshwater tidal wetland** — **2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species — points = 2
5 - 19 species — points = 1
< 5 species — points = 0

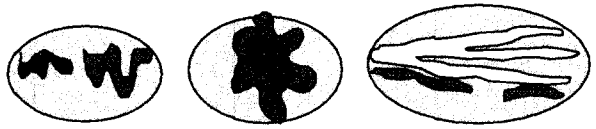
1

H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*

None = 0 points — **Low** = 1 point — **Moderate** = 2 points

All three diagrams in this row are **HIGH** = 3points



1

Wetland name or number A

H 1.5. Special habitat features:

Check the habitat features that are present in the wetland. *The number of checks is the number of points.*

- ✓ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).
- ___ Standing snags (dbh > 4 in) within the wetland
- ___ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)
- ✓ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)*
- ___ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)*
- ___ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)

3

Total for H 1 — Add the points in the boxes above: 8

Rating of Site Potential If score is: ___ **15-18 = H** ✓ **7-14 = M** ___ **0-6 = L** — *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?

H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*).

Calculate: 22 % undisturbed habitat 8 + [(% moderate and low intensity land uses)/2] 14 = 14 %

If total accessible habitat is:

- > 1/3 (33.3%) of 1 km Polygon — points = 3
- 20-33% of 1 km Polygon — points = 2
- 10-19% of 1 km Polygon — points = 1
- < 10% of 1 km Polygon — points = 0

2

H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.

Calculate: 30 % undisturbed habitat 8 + [(% moderate and low intensity land uses)/2] 4 = 34 %

- Undisturbed habitat > 50% of Polygon — points = 3
- Undisturbed habitat 10-50% and in 1-3 patches — points = 2
- Undisturbed habitat 10-50% and > 3 patches — points = 1
- Undisturbed habitat < 10% of 1 km Polygon — points = 0

2

H 2.3. Land use intensity in 1 km Polygon: If

- > 50% of 1 km Polygon is high intensity land use — points = (-2)
- ≤ 50% of 1 km Polygon is high intensity — points = 0

-2

Total for H 2 — Add the points in the boxes above: 2

Rating of Landscape Potential If score is: ___ **4-6 = H** ✓ **1-3 = M** ___ **< 1 = L** — *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?

H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.*

Site meets ANY of the following criteria: — points = 2

- — It has 3 or more priority habitats within 100 m (see next page)
- — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)
- — It is mapped as a location for an individual WDFW priority species
- — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources
- — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan

Site has 1 or 2 priority habitats (listed on next page) within 100 m — points = 1

Site does not meet any of the criteria above — points = 0

2

Rating of Value If score is: ✓ **2 = H** ___ **1 = M** ___ **0 = L** — *Record the rating on the first page*

Wetland name or number ____

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest - Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

— **Riparian:** The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

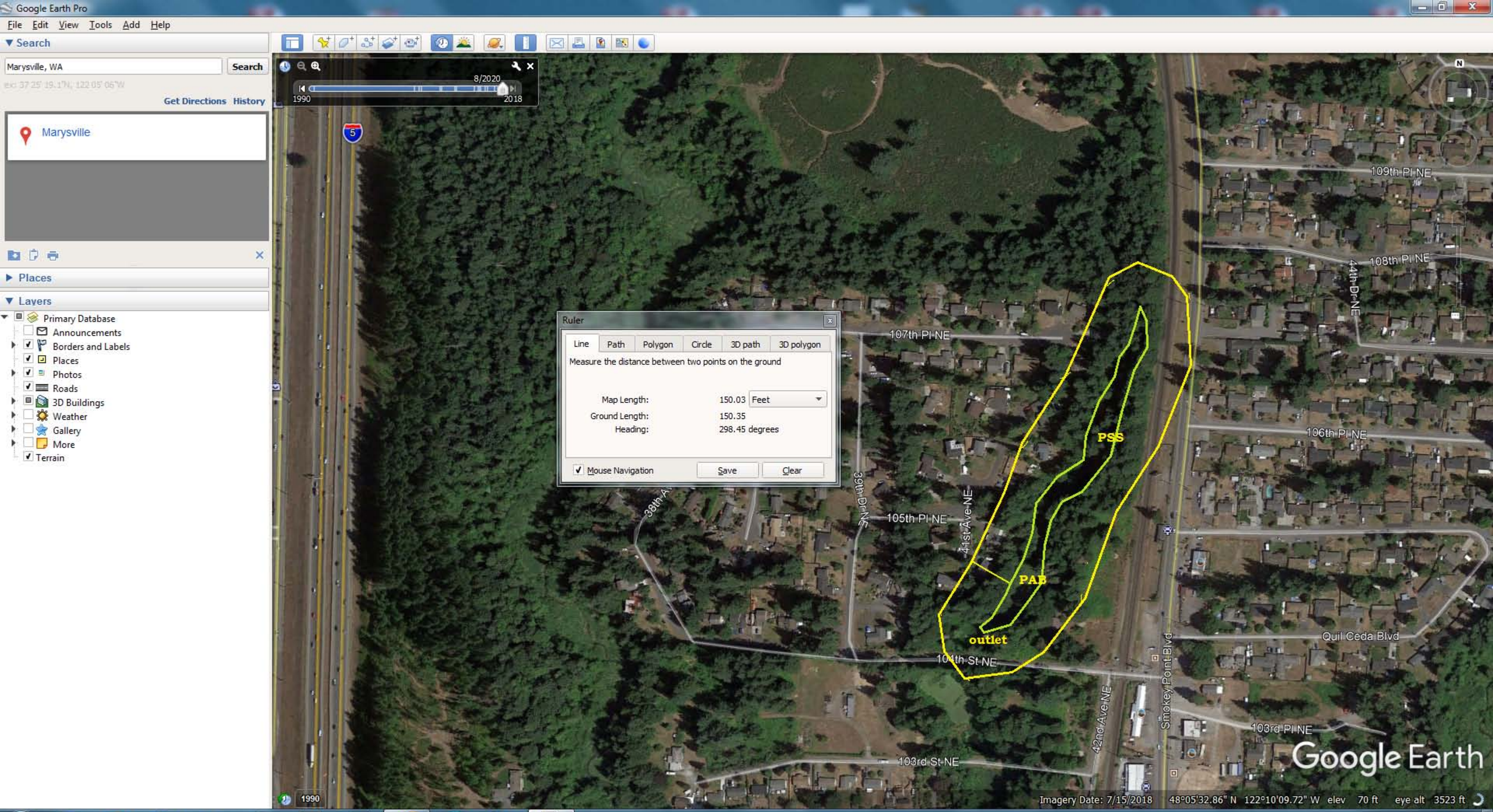
Wetland name or number A

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** No– **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** No = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** No = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below. If you answer YES you will still need to rate the wetland based on its functions.* SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number A

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon**	**Cat. I**
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ⅓ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating**	**Cat I**
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2**	**Cat. II**
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3**	**Cat. III**
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	NA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Photos
Roads
3D Buildings
Weather
Gallery
More
Terrain
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2018
Ruler
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Measure the distance between two points on the ground
Map Length: 150.03 Feet
Ground Length: 150.35
Heading: 298.45 degrees
Mouse Navigation
Save
Clear
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108th Pl NE
44th Dr NE
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106th Pl NE
105th Pl NE
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38th Ave
PSS
PAB
outlet
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Miscellaneous Tools:

Identify | Print Map | Share Map | Clear Graphics

Spatial Filter Tools:

Box Filter | Polygon Filter | Buffer Point | Buffer Feature

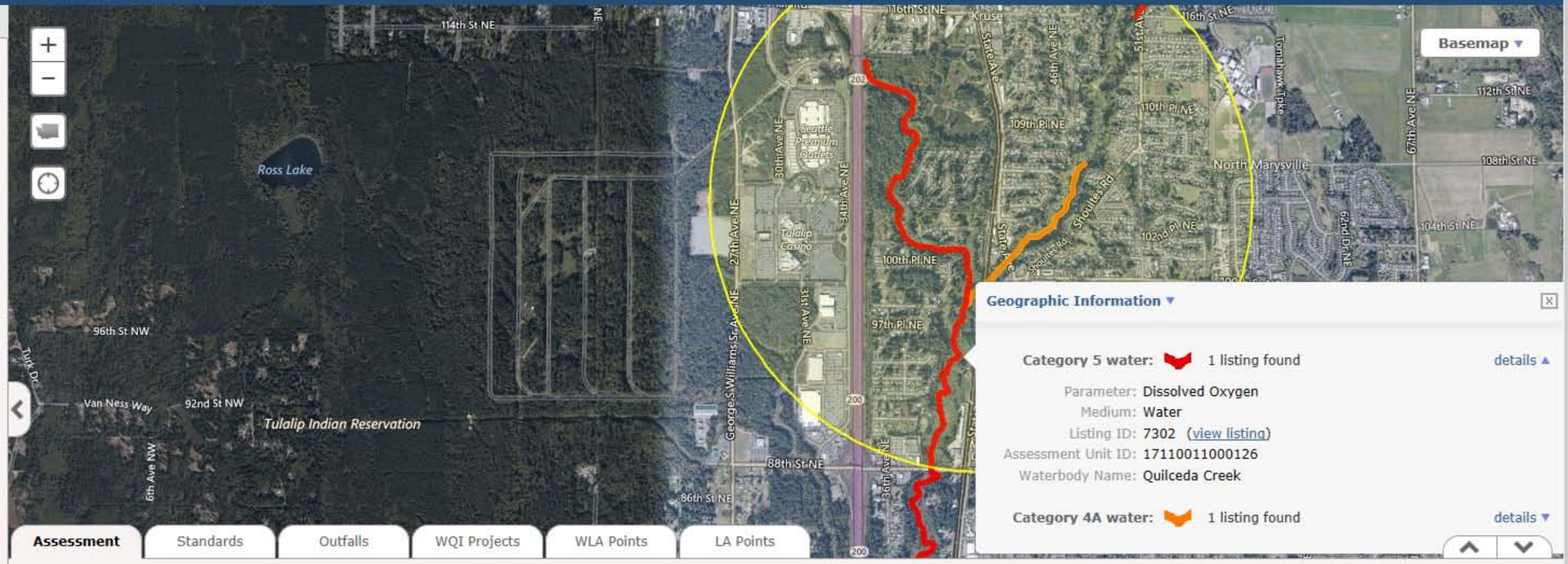
Spatial filter applied ✓

(remove filter)

1) Choose buffer distance:

1/4 mile | 1/2 mile | **1 mile** | 5 miles

2) Click on map to make selection.



Assessment | Standards | Outfalls | WQI Projects | WLA Points | LA Points

Zoom to selection | Export to csv

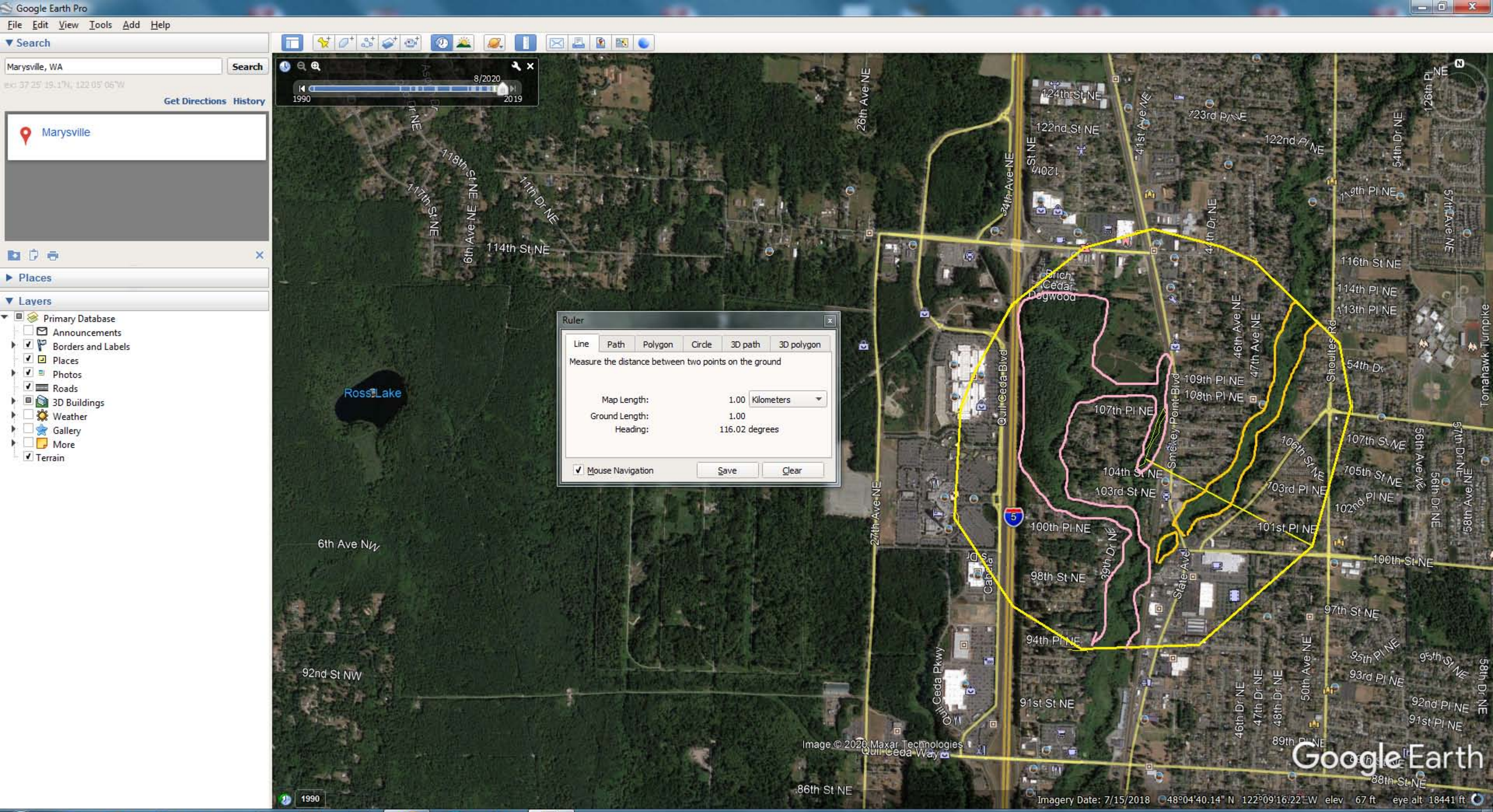
Find	Listing ID	Assessment Unit ID	Category	Medium	Parameter	Details
	47492	17110011000530	5	Water	Dissolved Oxygen	view
	71215	17110011000117	5	Water	pH	view
	7302	17110011000126	5	Water	Dissolved Oxygen	view

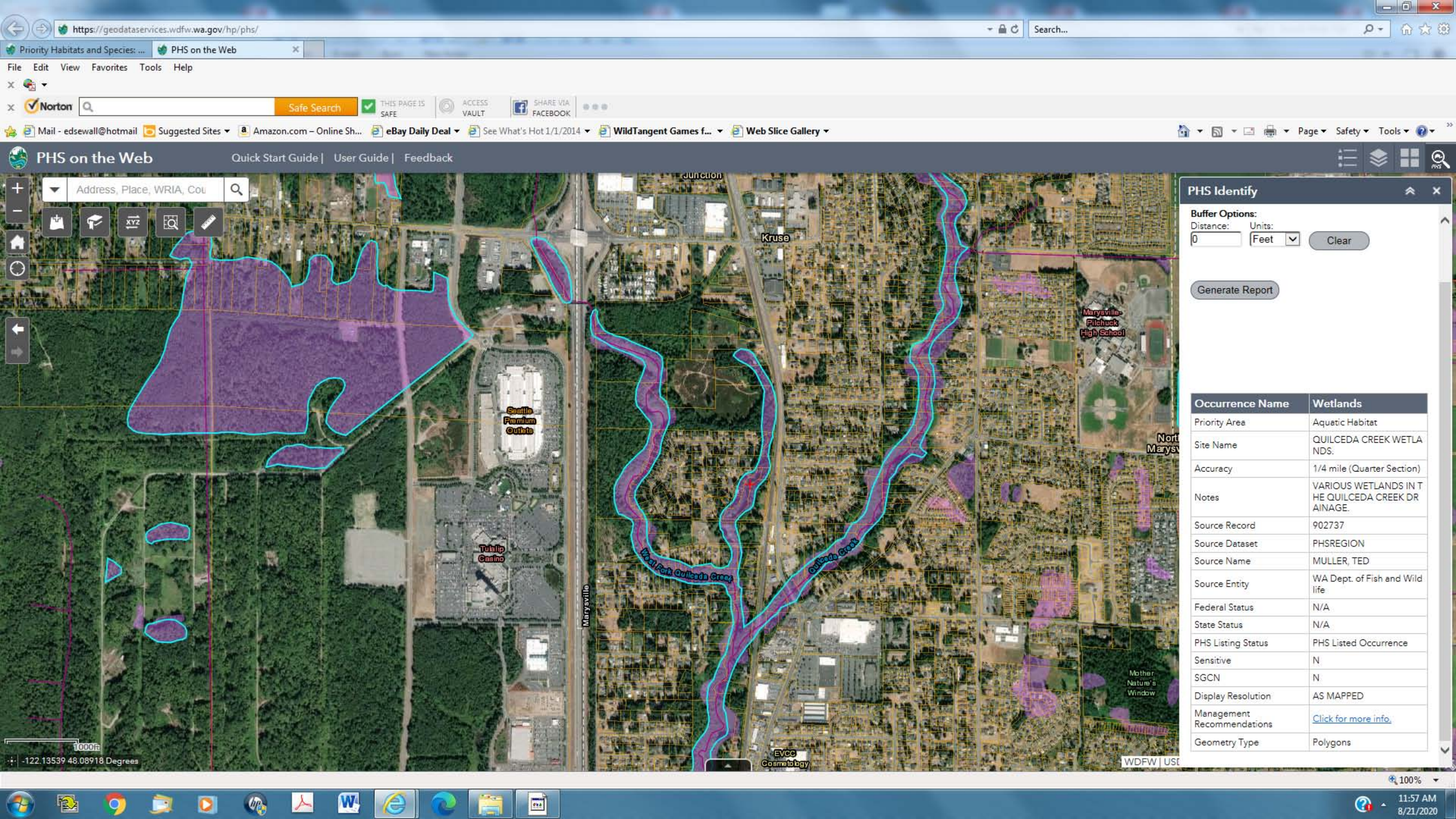
Showing 1 to 5 of 8 entries

Previous 1 2 Next

100%

11:47 AM 8/21/2020


Google Earth Pro
File Edit View Tools Add Help
Search
Marysville, WA
Search
Get Directions History
Marysville
Places
Layers
Primary Database
Announcements
Borders and Labels
Places
Photos
Roads
3D Buildings
Weather
Gallery
More
Terrain
8/2020
1990
2019
Ruler
Line Path Polygon Circle 3D path 3D polygon
Measure the distance between two points on the ground
Map Length: 1.00 Kilometers
Ground Length: 1.00
Heading: 116.02 degrees
Mouse Navigation
Save
Clear
Ross Lake
114th St NE
118th St NE
117th St NE
11th Dr NE
6th Ave NE
26th Ave NE
124th St NE
122nd St NE
122nd Pl NE
123rd Pl NE
41st Ave NE
34th Ave NE
44th Dr NE
54th Dr NE
57th Ave NE
116th St NE
114th Pl NE
113th Pl NE
109th Pl NE
108th Pl NE
107th Pl NE
104th St NE
103rd St NE
100th Pl NE
101st Pl NE
98th St NE
97th St NE
94th Pl NE
91st St NE
92nd St NW
6th Ave NW
Quil Ceda Blvd
Smokey Point Blvd
State Ave
27th Ave NE
39th Dr NE
46th Ave NE
47th Ave NE
Shoultes Rd
Tomahawk Turnpike
Image © 2020 Maxar Technologies
Google Earth
Imagery Date: 7/15/2018 48°04'40.14" N 122°09'16.22" W elev 67 ft eye alt 18441 ft
11:38 AM
8/21/2020


https://geodataservices.wdfw.wa.gov/hp/phs/
Priority Habitats and Species: ...
PHS on the Web
File Edit View Favorites Tools Help
Norton Safe Search
Mail - edsewall@hotmail
Suggested Sites
Amazon.com – Online Sh...
eBay Daily Deal
See What's Hot 1/1/2014
WildTangent Games f...
Web Slice Gallery
Page Safety Tools
PHS on the Web
Quick Start Guide | User Guide | Feedback
Address, Place, WRIA, Cou
Junction
Kruse
Marysville-Pilchuck High School
Seattle Premium Outlets
Tulalip Casino
West Fork Quilceda Creek
Quilceda Creek
Marysville
EVCC Cosmetology
Mother Nature's Window
1000ft
-122.13539 48.08918 Degrees
PHS Identify
Buffer Options:
Distance:
0
Units:
Feet
Clear
Generate Report
Occurrence Name | Wetlands
Priority Area | Aquatic Habitat
Site Name | QUILCEDA CREEK WETLANDS.
Accuracy | 1/4 mile (Quarter Section)
Notes | VARIOUS WETLANDS IN THE QUILCEDA CREEK DRAINAGE.
Source Record | 902737
Source Dataset | PHSREGION
Source Name | MULLER, TED
Source Entity | WA Dept. of Fish and Wildlife
Federal Status | N/A
State Status | N/A
PHS Listing Status | PHS Listed Occurrence
Sensitive | N
SGCN | N
Display Resolution | AS MAPPED
Management Recommendations | Click for more info.
Geometry Type | Polygons
WDFW | USG
100%
11:57 AM
8/21/2020