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July 9, 2018

Sather B LLC
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Arlington, Washington 98223

RE: Parcels #310529002001300 & 1401 – Critical Area Report
City of Marysville, Washington
SWC Job #16-187

This report describes our observations of any jurisdictional wetlands, streams or buffers on or within 200' of Parcels #310529002001300 & 1401 located south of SR 531 in the City of Marysville, Washington (the "site"). The site is located in Section 29, Township 31 North, Range 5 east of the W.WM.



Above: Vicinity Map

The site is an irregular shaped 36.39 acre agricultural property used for growing hay, oats, corn and other crops.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site between early February and late May of 2017 & 2018.

The site was reviewed using 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.

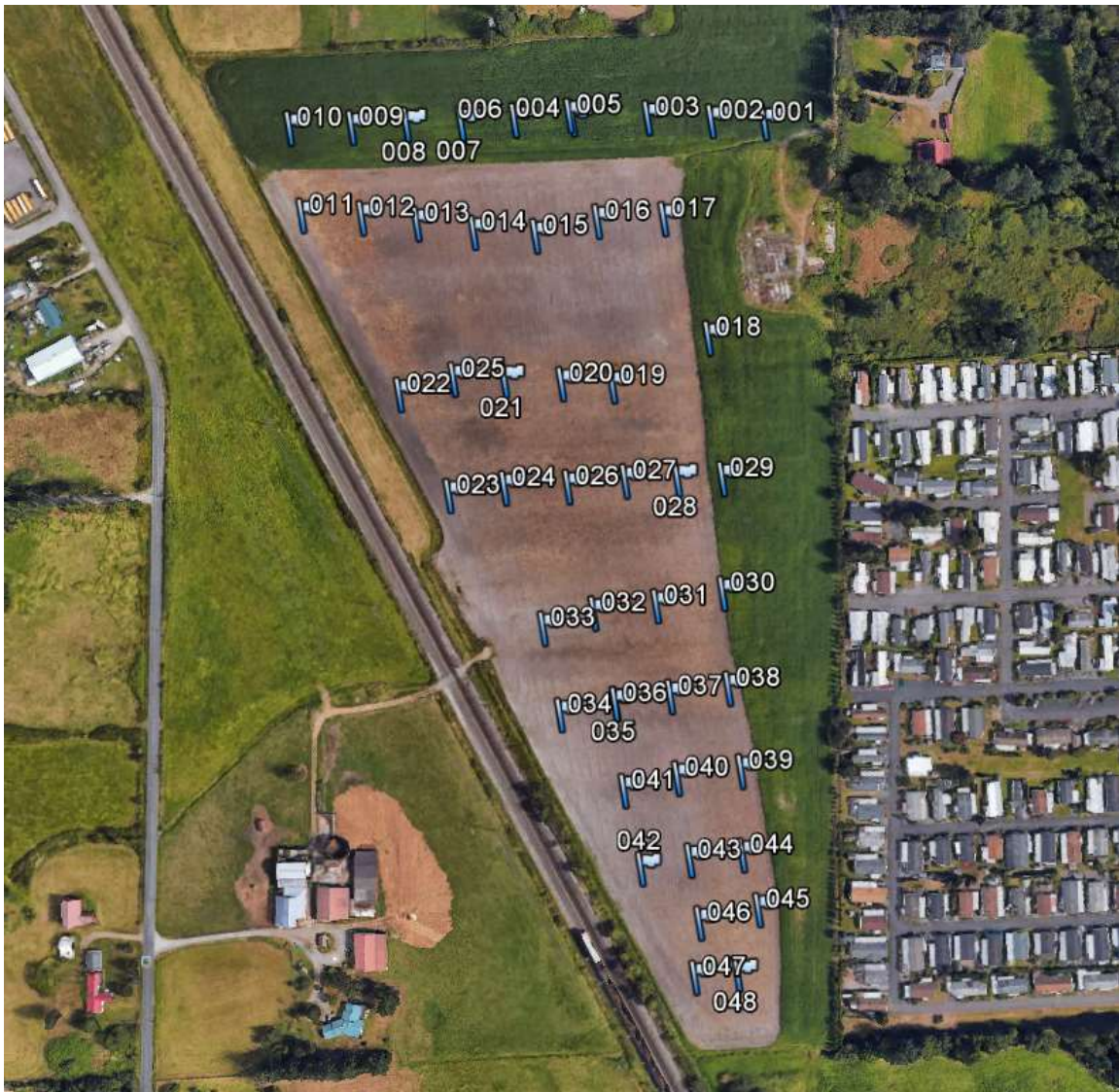
Given the agricultural character of the site, degree of hydrologic disturbance from past drainage ditching and tile systems, as well as the mapped Custer soil series on the site, as well as some inventory information indicating potential wetlands, hydrology monitoring in the early growing season was deemed the only way to determine if wetland hydrology exists on this agricultural field.

The presence of wetland hydrology is the driving force behind wetland presence, without wetland hydrology, an area does not meet wetland criteria. Therefore, only areas on the site that contain all three parameters during the early growing season meet the definition of a wetland. Areas that do not have hydrology do not meet wetland criteria and are considered upland.

In order to determine what portion of the site contained wetland hydrology, an analysis of wetland hydrology was conducted throughout the site for both 2017 and 2018.

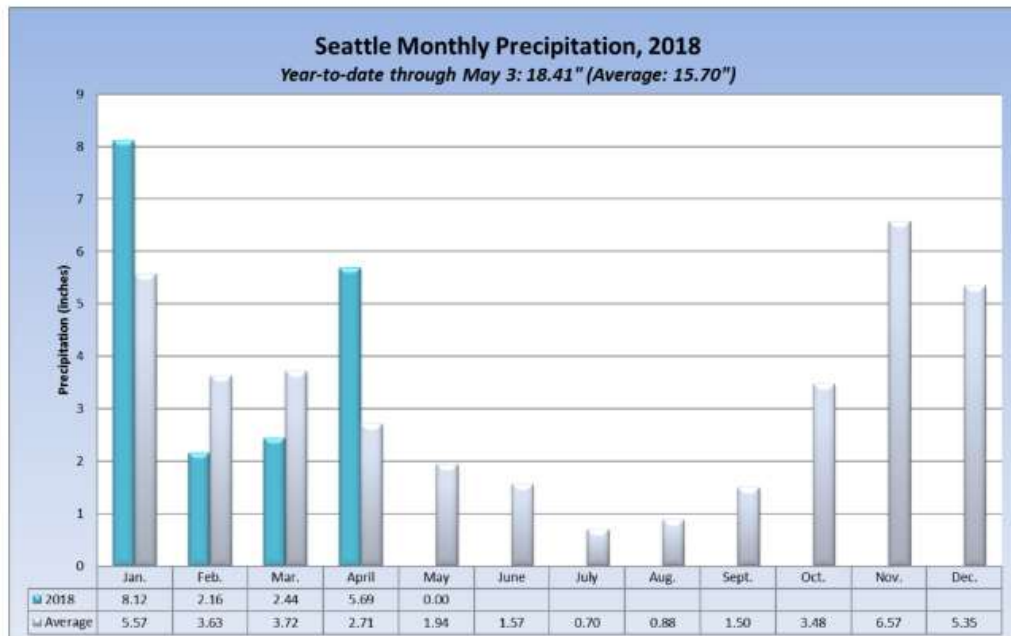
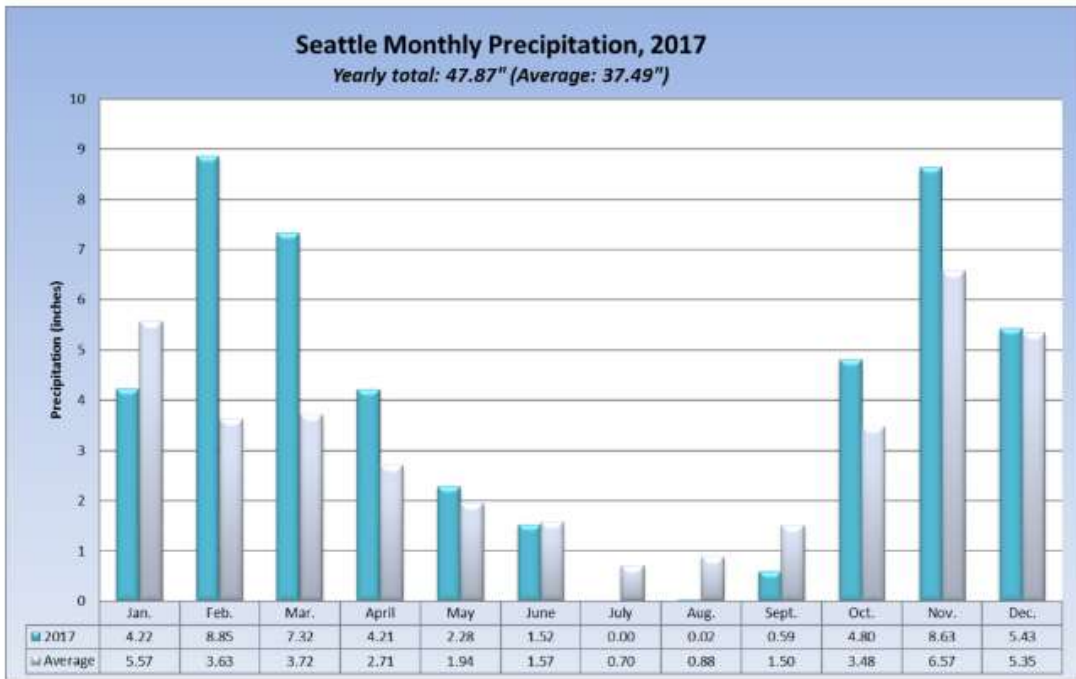
Site Hydrology Monitoring Methods

A total of 47 data points (soil pits & hydrology monitoring wells (GPS points 001-048, note: *points 006 and 007 were duplicates of the same monitor point*) were sampled to determine if wetland vegetation, soils and hydrology was present on the site within 12" of the soil surface.



Above: location of gps located hydrology monitoring points on the site.

The site was visited between February 21th and May 30 of both 2017 and 2018 to collect hydrology data.



Rainfall in the region for the period from January-May for 2017 was well above normal rainfall as is shown in the graph above. For the period of February 1-April 30, 2017, 20.17" of rainfall was recorded. This is over twice the normal 10.06" for that period. During the spring of 2017, two

small areas, one the northwest and one on the southeast side of the site had soil saturation within 12” of the surface for up to 2 weeks in the early growing season (*late February early march 2017 -within hydrology monitor points 010, 012, 013, 044, 045 & 046*). Standing water levels within wells and pits were slightly lower in depth than the soil saturation levels. Since the rainfall data for this period of time was much higher than normal, the findings were not considered valid for a normal year, and as a result, monitoring of hydrology of the site was continued through the early growing season of 2018.

A review of the data for 2018 reveals a more normal rainfall pattern for this period of time, with February 1- April 30 having 10.29” of rain, just slightly above the normal 10.06” for this period. The 2018 normal rainfall quantity for this period would result in “normal” weather conditions for this area and result in a more accurate identification of any area with wetland hydrology.

At each sample point soil pit was excavated at least -18” deep. At each pit observations of the level of standing water and/or soil saturation (if any) were recorded. All points were again monitored in 2018 and the points that were found to have potential wetland hydrology in 2017 were monitored with monitoring wells that were installed and in the ground through May prior to yearly disking and cropping of the site.

OBSERVATIONS

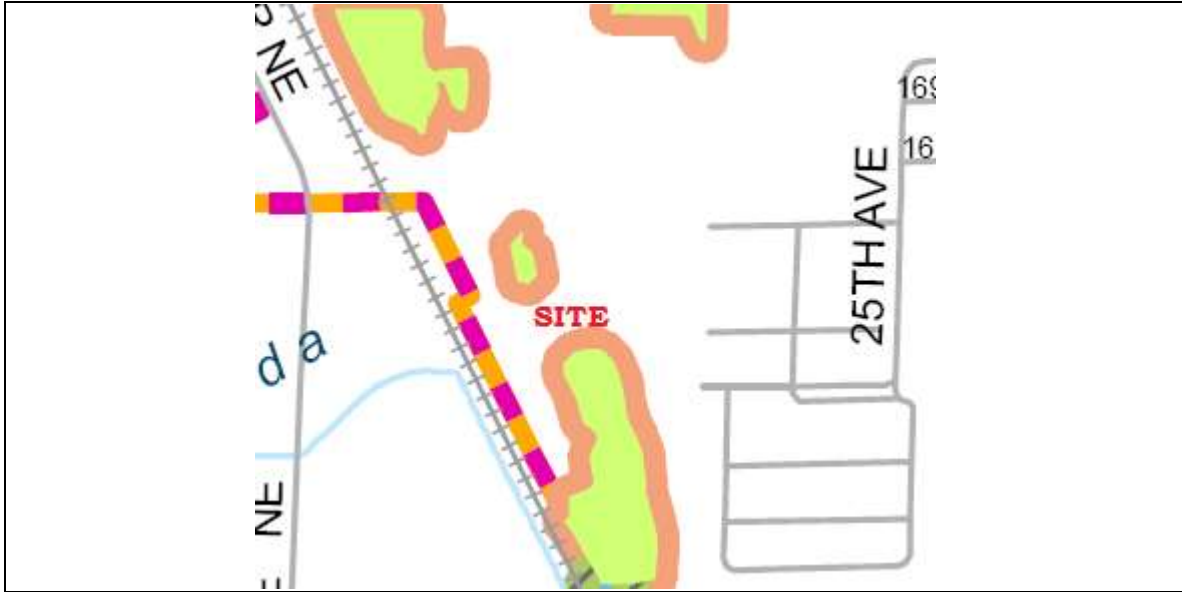
Existing Site Documentation.

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

City of Marysville Critical Areas Map

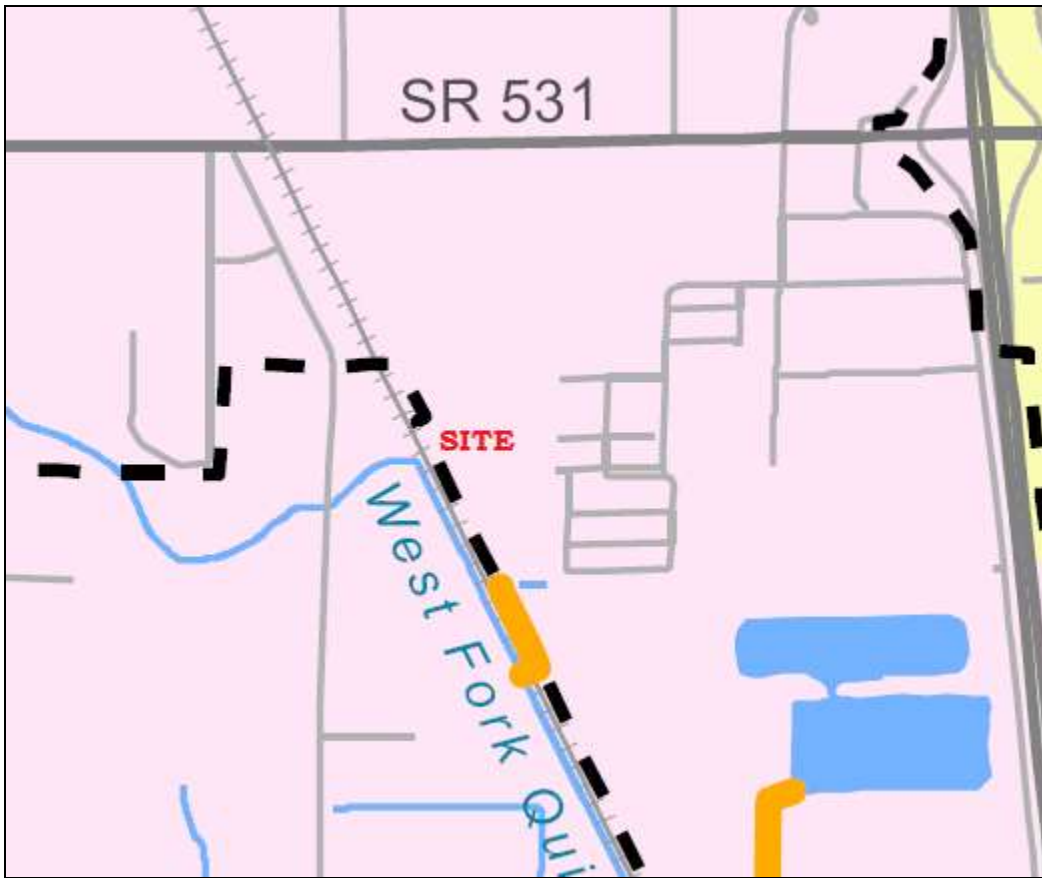
According to the City of Marysville Critical Areas Maps, are two wetlands located on the site. This corresponds to an earlier delineation done on the site around 2006 for a previous party looking at purchasing the site. At that time the field was fallow, and from speaking to the previous

applicant who had this work done (Rob Janicki), the delineation was just a quick worst case scenario, and the delineation did not confirm wetland hydrology was present and went entirely on soils and annual weedy species that were at least facultative on the site. Hydrology of these delineated features was not confirmed during this study.



Above: City of Marysville Critical Areas Maps (wetland above, stream below)

The City stream map (see page 7 of this report) depicts a small portion of the West Fork of Quilceda Creek is present on the southwest corner of the site. The end of this stream segment corresponds to the WDFW approved fish screens that are located in this area to keep fish from passing north into agricultural and drainage ditches along the west side of the site.



National Wetlands Inventory (NWI)

The NWI map depicts and emergent wetland on the south end of the site. As is standard for the Marysville area, USFWS did not field verify this wetland, and mapping was done solely on aerial photograph interpretation.



Above: NWI Map of the area of the site.

Soil Survey

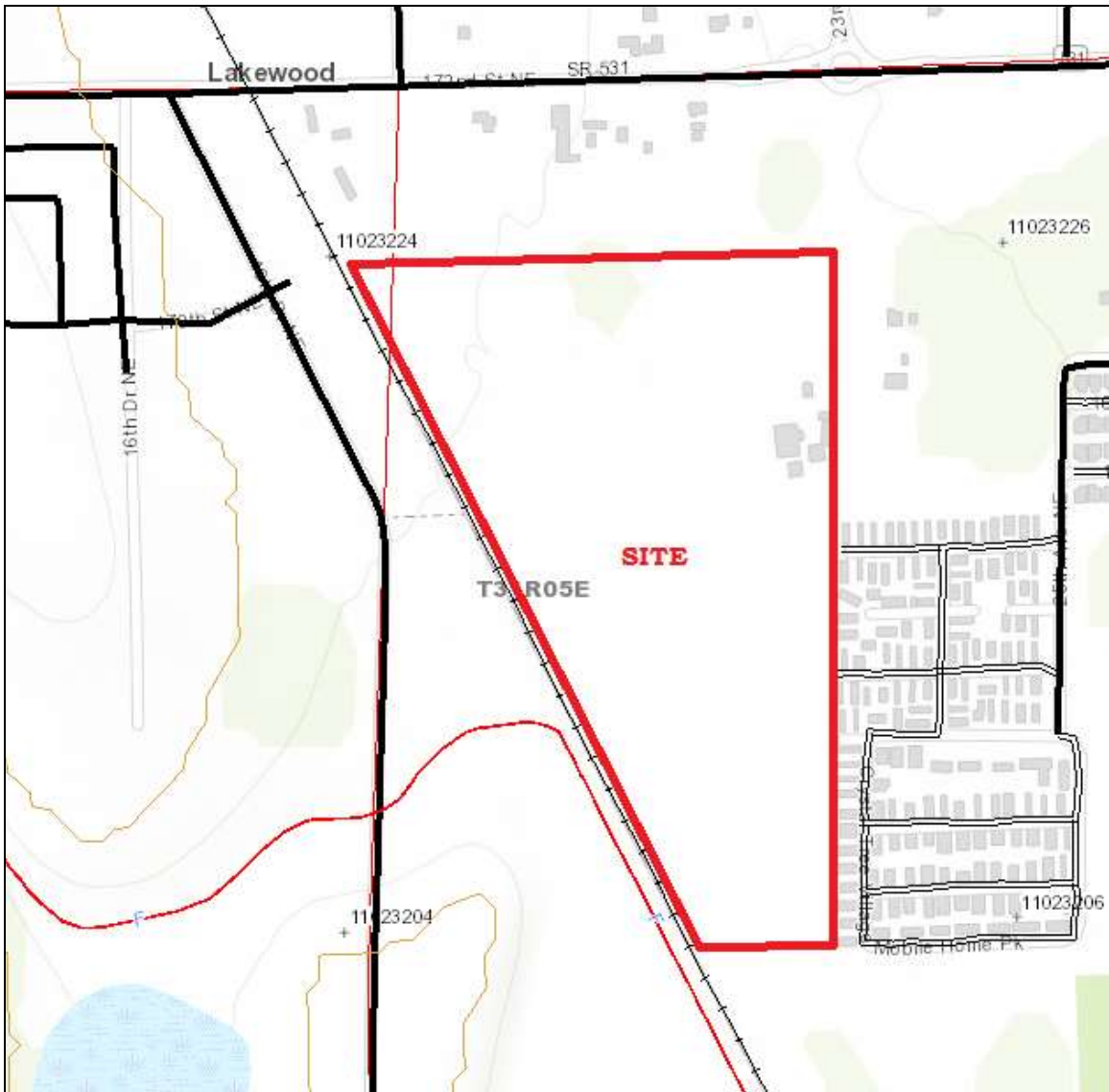
According to the NRCS Soil Mapper website, the site is mapped as containing Custer fine sandy loam on the east, Terric Medisaprists in the center, and Kitsap silt loam along the west side of the site. There is a small inclusion of Norma loam along the southeast corner. All of the soils on the site are considered hydric with the exception of the Kitsap soil along the west side of the site.



Above: NRCS Soil map of the study area.

WADNR Fpars

The WADNR Fpars stream typing map for the site there are no stream on the site. A Type F water is depicted on the west side of the railroad tracks west of the site's southwest corner.



Above WDNR Fpars Stream Typing map.

WDFW Priority Habitats

According to the WDFW Priority Habitats mapping website, the only priority habitat is the wetland, duplicated from the NWI maps on the south end of the site.



Above: WDFW Priority Habitats Map of the site

Field observations

Uplands

The site is a relatively flat agricultural property with a slight slope to the west towards the railroad tracks. The site has been continuously farmed since the 1800's and has been planted with rye during our fieldwork in 2018. On the northeast corner of the site the remains of the farm structures are present. This includes a large concrete slab/foundation from a barn as well as a gravel road access from the northeast and scattered piles of debris from the past demolition of the barn.

Ditches

At the southwest corner of the site are a set of fish screens which prevent fish from traveling from the West Fork of Quilceda Creek into the drainage ditch system around the south and west edge of the site. The fish screens are considered by WDFW as the end of a natural stream channel, with all fish bearing waters south and west of the railroad tracks.

A ditch is also located along the north edge of the site, which then curves to the south and runs along the railroad tracks along the west edge of the site to the point where it enters the West Fork of Quilceda at the south end of the site at the fish screens. This ditch is a man-made agricultural drainage ditch which carries storm water from properties to the north of the site, directing the waters southerly along the western property line, and then westerly off-site. These ditches convey runoff from "Pollutant Generating Surfaces" (Roads) and this is "permitted" as a Municipal Separated Storm Sewer System (MS4) through the City of Marysville Phase II NPDES Permit. These ditches clearly carry storm water runoff from SR531 to the north, as well as other recently developed properties to the north of SR531.

Both the Federal and State Water Pollution Control Regulations (State rules RCW 90.48.080 specifically) do not allow the discharge of polluted water in the "Waters of the State". The Municipality is also responsible for this MS4 up to its discharge into receiving water. In this case, that would be Quilceda Creek south of the Fish Screens. By Permit, only treated water is supposed to be discharged into a "receiving water". The ditches north of the fish screens are clearly used as part of the City's storm water system, and a ditch permitted as a MS4 cannot at the same time be called a "water of the state".

These ditches are not streams or wetlands. The closest stream being the West Fork of Quilceda located at the southwest corner of the site. A fish screen has been placed at the south end of the site at WDFW's approval specifically to prevent any fish from migrating into the man-made and artificially created drainage ditch south and west of the site, that the sites ditch flows into.

The site has been regularly plowed and planted with either hay or crops like corn, oats and rye on an annual basis. At the time of our sampling

in 2017 the site was planted in corn, and in 2018, rye. In June the rye was harvested and baled, and then the site was disked to remain fallow for the summer.

The 47 soil pits excavated throughout the site generally consist of sandy loam soils similar to the Custer profile, with an A-horizon of sandy loam with colors of 10YR 3/2 and 2/2 down to 8-10" and an B-horizon of loamy sand with a color of 10YR 3/2-3/6. The attached data sheets are from the 3-21-17 data collection. The hydrology indicators during this 2017 data collection time are not considered valid as has been previously described. Rainfall amounts in the spring of 2017 were abnormally high making hydrology readings invalid.

During the 2018 monitoring season, in a year with slightly above normal rainfall, no area on the site was found to contain wetland hydrology continuously for more than a one week period (see attached hydrology monitoring results). Monitoring points #8, #9, #10, #11, #12, #43, #44 and #45 were found to have some wetland hydrology indicators in 2017 during a period of above normal rainfall.

In the normal rainfall year of 2018, of these points, only points #10, #11 #44 and #45 had a single or in the case of monitoring Points #10 & #44, two observations of marginal hydrology within 12" of the soil surface. Of the two points with two observations, the duration of saturation within 12" of the surface was < 14days.

All other observations of the points during the monitoring period from 2/28-5/25, soils were found to be moist or dry during all site visits

No areas meeting wetland criteria were found on the site.

Streams

As previously described, the Middle West Fork of Quilceda Creek is located on the southwest corner of the site. A fish screen is located at this point where the channel passes enters the site from the west under the railroad tracks. The creek parallels the railroad tracks on the west side of the tracks. The portion of this stream on the southwest corner of the site has been mapped by the City of Marysville as a Type F stream. Type F stream have a 150' buffer measured from the OHWM (MMC 22E.010.220).

The portion of the buffer on the southwest corner of the site is functional buffer to the stream. The strip of buffer that extends over the railroad tracks from the west where the creek is located north of the southwest corner of the site, is non-functional buffer and provides no protection to the creek due to the railroad bed passing through the majority of this buffer area.

Off-site Critical areas

A small scrub-shrub wetland is located off-site to the south of the southwest corner of the site. This wetland has been reviewed by Sewall Wetland Consulting for wetland and hydrology monitoring work we have been doing on the site to the south for another client.



Above: Critical areas map of the site, depicting the off-site Category IV wetland as well as the West Fork of Quilceda Creek. Note: these are approximations off the aerial photograph. Refer to site survey for exact locations.

City of Marysville Code (MMC 22E.010.060 Wetland rating and classification) states: Wetlands shall be classified as Category I, II, III, or IV using the Washington State Department of Ecology's Wetland Rating System for Western Washington, Publication No. 04-06-025, or as amended hereafter. As a result the wetland area was rated using the 2014 Wetland Rating system.

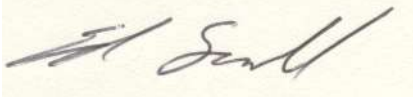
Using the 2014 WADOE Wetland Rating system and rating the wetland as a depressional wetland, this wetland scored a total of 15 points with 5 for habitat. This indicates a Category IV wetland. Category IV wetlands in the City of Marysville have a 35' buffer measured from the wetland edge. This buffer is completely encompassed by the 150' stream buffer on the site.

Conclusion

No wetlands exist on the site. A type F water, as well as a portion of its 150' buffer are located on the southwest corner of the site. The buffer of an off-site Category IV wetland to the south of the southwest corner of the site extends onto the site. This buffer is located within the 150' buffer of Quilceda Creek.

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

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.

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

City of Marysville Municipal Code

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2018

M = moist

D = dry

- = depth to soil sat.

Mon. PT	Date										Gps Point	
	2/28	3/1	3/7	3/14	3/20	4/3	4/17	5/1	5/15	5/25		
1	M	M	M	M	M	M	D	D	D	D		001
2	M	M	M	M	M	M	D	D	D	D		002
3	M	M	M	M	M	M	D	D	D	D		003
4	M	M	M	M	M	M	D	D	D	D		004
5	M	M	M	M	M	M	D	D	D	D		005
6	M	M	M	M	M	M	D	D	D	D		006/007
7	M	M	M	M	M	M	D	D	D	D		008
8	M	M	M	M	M	M	D	D	D	D		009
9	-15	-15	-15	M	M	M	M	D	D	D		010
10	-12	-8	-14	M	M	M	M	M	D	D		011
11	-13	-9	-17	M	M	M	D	M	D	D		012
12	-13	-14	M	M	M	M	D	D	D	D		013
13	M	M	M	M	M	M	D	D	D	D		014
14	M	M	M	M	M	M	D	D	D	D		015
15	M	M	M	M	M	M	D	D	D	D		016
16	M	M	M	M	M	M	D	D	D	D		017
17	M	M	M	M	M	M	D	D	D	D		018
18	M	M	M	M	M	M	D	D	D	D		019
19	M	M	M	M	M	M	D	D	D	D		020
20	M	M	M	M	M	M	D	D	D	D		021
21	M	M	M	M	M	M	D	D	D	D		022
22	M	M	M	M	M	M	D	D	D	D		023
23	M	M	M	M	M	M	D	D	D	D		024
24	M	M	M	M	M	M	D	D	D	D		025
25	M	M	M	M	M	M	D	D	D	D		026
26	M	M	M	M	M	M	D	D	D	D		027
27	M	M	M	M	M	M	D	D	D	D		028

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2018

M = moist

D = dry

" = depth to soil sat.

Date

Mon. Pt 2/28 3/1 3/7 3/14 3/20 4/3 4/17 5/1 5/15 5/25 Gps pt

28	M	M	M	M	M	M	D	D	D	D	029
29	M	M	M	M	M	M	D	D	D	D	030
30	M	M	M	M	M	M	D	D	D	D	031
31	M	M	M	M	M	M	D	D	D	D	032
32	M	M	M	M	M	M	D	D	D	D	033
33	M	M	M	M	M	M	D	D	D	D	034
34	M	M	M	M	M	M	D	D	D	D	035
35	M	M	M	M	M	M	D	D	D	D	036
36	M	M	M	M	M	M	D	D	D	D	037
37	M	M	M	M	M	M	D	D	D	D	038
38	M	M	M	M	M	M	D	D	D	V	039
39	M	M	M	M	M	M	D	D	D	D	040
40	M	M	M	M	M	M	D	D	D	D	041
41	M	M	M	M	M	M	D	D	D	D	042
42	M	M	M	M	M	M	D	D	D	D	043
43	M	M	M	M	M	M	D	D	D	D	044
44	-12	-12	-18	M	M	M	M	M	D	D	045
45	-20	-22	M	M	-18	M	M	M	D	D	046
46	-14	-11	M	M	M	M	M	M	D	D	047
47	M	M	M	M	M	M	D	D	D	D	048

Wetland name or number _____

off-site

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland 0 Date of site visit: _____
 Rated by Ed Smith Trained by Ecology? Yes ___ No ___ Date of training _____
 HGM Class used for rating _____ 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 IV (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			TOTAL
	H	M	L	H	M	L	H	M	L	
Site Potential	H	M	<u>L</u>	H	M	<u>L</u>	H	M	<u>L</u>	
Landscape Potential	H	<u>M</u>	L	H	M	<u>L</u>	H	<u>M</u>	L	
Value	<u>H</u>	M	L	H	<u>M</u>	L	H	<u>M</u>	L	
Score Based on Ratings	<u>6</u>			<u>4</u>			<u>5</u>			<u>15</u>

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
 6 = 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 _____

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 0

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 _____

DEPRESSIONAL AND FLATS WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3	2
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):	
Wetland has persistent, ungrazed, plants > 95% of area points = 5	3
Wetland has persistent, ungrazed, plants > 1/2 of area points = 3	
Wetland has persistent, ungrazed plants > 1/10 of area points = 1	
Wetland has persistent, ungrazed plants < 1/10 of area points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:	
<i>This is the area that is ponded for at least 2 months. See description in manual.</i>	
Area seasonally ponded is > 1/2 total area of wetland points = 4	0
Area seasonally ponded is > 1/4 total area of wetland points = 2	
Area seasonally ponded is < 1/4 total area of wetland points = 0	
Total for D 1 Add the points in the boxes above 5	

Rating of Site Potential If score is: 12-16 = H 6-11 = M 0-5 = L Record the rating on the first page

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	0
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?	0
Source _____ Yes = 1 No = 0	0
Total for D 2 Add the points in the boxes above 1	

Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L Record the rating on the first page

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 1 No = 0	1
D 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 basin in which the unit is found)? Yes = 1 No = 0	2
Total for D 3 Add the points in the boxes above 4	

Rating of Value If score is: 4 = H 1 = M 0 = L Record the rating on the first page

Wetland name or number 0

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation	
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4	2
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.	
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7	0
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3	
The wetland is a "headwater" wetland points = 3	
Wetland is flat but has small depressions on the surface that trap water points = 1	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.	
The area of the basin is less than 10 times the area of the unit points = 5	3
The area of the basin is 10 to 100 times the area of the unit points = 3	
The area of the basin is more than 100 times the area of the unit points = 0	
Entire wetland is in the Flats class points = 5	
Total for D 4 Add the points in the boxes above 5	

Rating of Site Potential If score is: 12-16 = H 6-11 = M 0-5 = L Record the rating on the first page

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	0
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at > 1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0
Total for D 5 Add the points in the boxes above 0	








Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on the first page

D 6.0. Are the hydrologic functions provided by the site valuable to society?		
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.		
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):	1	
• Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2		
• Surface flooding problems are in a sub-basin farther down-gradient. points = 1		
Flooding from groundwater is an issue in the sub-basin. points = 1	0	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why _____ points = 0		
There are no problems with flooding downstream of the wetland. points = 0		
D 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 D 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.	
<input type="checkbox"/> Aquatic bed <input checked="" type="checkbox"/> Emergent <input checked="" type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover) <input type="checkbox"/> Forested (areas where trees have > 30% cover) If the unit has a Forested class, check if: <input type="checkbox"/> 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	4 structures or more: points = 4 3 structures: points = 2 2 structures: points = 1 1 structure: points = 0
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).	
<input type="checkbox"/> Permanently flooded or inundated <input checked="" type="checkbox"/> Seasonally flooded or inundated <input type="checkbox"/> Occasionally flooded or inundated <input type="checkbox"/> Saturated only <input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland <input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland <input type="checkbox"/> Lake Fringe wetland <input type="checkbox"/> Freshwater tidal wetland	4 or more types present: points = 3 3 types present: points = 2 2 types present: points = 1 1 type present: points = 0 2 points 2 points
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 5 - 19 species < 5 species	points = 2 points = 1 points = 0
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	 High = 3 points
 All three diagrams in this row are HIGH = 3 points	 

Wetland name or number 0

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.	
<input type="checkbox"/> Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). <input type="checkbox"/> Standing snags (dbh > 4 in) within the wetland <input type="checkbox"/> 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) <input checked="" type="checkbox"/> 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) <input type="checkbox"/> 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) <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	1 3
Total for H 1	Add the points in the boxes above
Rating of Site Potential If score is: <u>15-18 = H</u> <u>7-14 = M</u> <u>0-6 = L</u> 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: <u>0</u> % undisturbed habitat <u>40</u> + [(% moderate and low intensity land uses)/2] <u>20</u> = <u>20</u> %	
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
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: <u>15</u> % undisturbed habitat <u>40</u> + [(% moderate and low intensity land uses)/2] <u>20</u> = <u>35</u> %	
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
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
Total for H 2	Add the points in the boxes above
Rating of Landscape Potential If score is: <u>4-6 = H</u> <u>1-3 = M</u> <u>< 1 = L</u> 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
Total for H 3	Add the points in the boxes above
Rating of Value If score is: <u>2 = H</u> <u>1 = M</u> <u>0 = L</u> 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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
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 <i>Spartina</i> , see page 25) — At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed 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 Cat. I
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
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES you will still need to rate the wetland based on its functions.</i>	
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 50% 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 0

<p>SC 4.0. Forested Wetlands</p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i></p> <ul style="list-style-type: none"> — 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). <p>Yes = Category I No = Not a forested wetland for this section</p>	<p>Cat. I</p>
<p>SC 5.0. Wetlands in Coastal Lagoons</p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> — 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 (<i>needs to be measured near the bottom</i>) <p>Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon</p> <p>SC 5.1. Does the wetland meet all of the following three conditions?</p> <ul style="list-style-type: none"> — 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 ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland is larger than 1/10 ac (4350 ft²) <p>Yes = Category I No = Category II</p>	<p>Cat. I</p> <p>Cat. II</p>
<p>SC 6.0. Interdunal Wetlands</p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> — 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 <p>Yes – Go to SC 6.1 No = not an interdunal wetland for rating</p> <p>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</p> <p>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</p> <p>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</p>	<p>Cat. I</p> <p>Cat. II</p> <p>Cat. III</p> <p>Cat. IV</p>
<p>Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form</p>	<p>NA</p>

Search

Marysville, WA Search

Get Directions History

Marysville

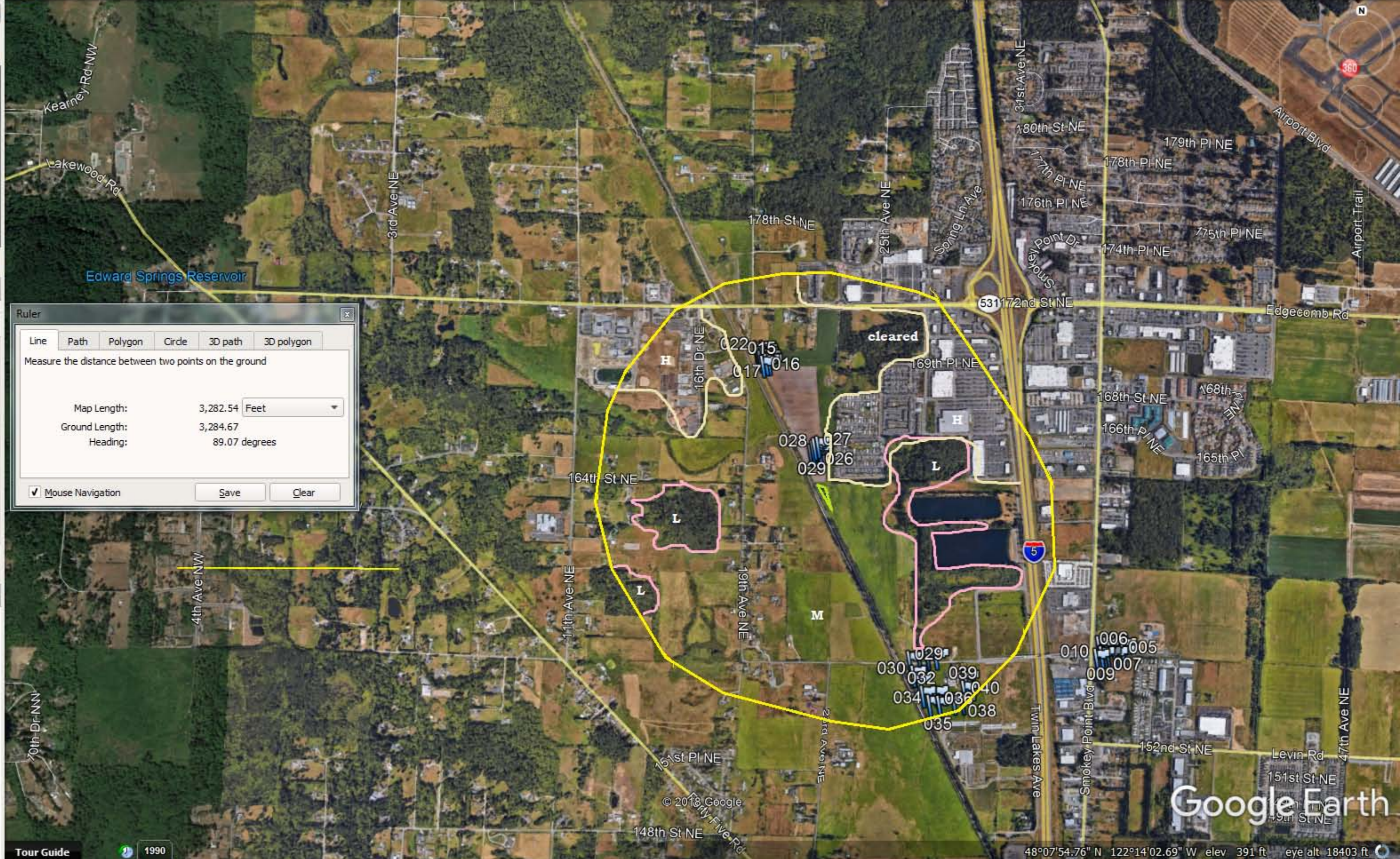
Edward Springs Reservoir

My Places

- Sightseeing Tour
- garmin GPS Device
- garmin GPS Device
- Untitled Polygon
- garmin GPS Device
- Waypoints

Layers

- Primary Database
- Borders and Labels
- Places
- Photos
- Roads
- 3D Buildings
- Ocean
- Weather
- Gallery
- Global Awareness
- More
- Terrain



Ruler

Line Path Polygon Circle 3D path 3D polygon

Measure the distance between two points on the ground

Map Length:	3,282.54	Feet
Ground Length:	3,284.67	
Heading:	89.07	degrees

Mouse Navigation Save Clear

▼ Search

Marysville, WA Search

Get Directions History

Marysville

My Places

- ▼ Sightseeing Tour
 - Make sure 3D Buildings layer is checked
- ▼ garmin GPS Device
 - Created 09/07/12 08:30:41
- ▼ garmin GPS Device
 - Created 12/12/12 08:01:16
- ▼ Untitled Polygon
 - ▼ garmin GPS Device
 - Created 02/21/13 12:17:00
- ▼ Waypoints
 - ▼ 001
 - 26-JUN-12 9:14:13AM

▼ Places

Layers

- ▼ Primary Database
 - ▼ Borders and Labels
 - ▼ Places
 - ▼ Photos
 - ▼ Roads
 - ▼ 3D Buildings
 - ▼ Ocean
 - ▼ Weather
 - ▼ Gallery
 - ▼ Global Awareness
 - ▼ More
 - ▼ Terrain



Ruler

Line Path Polygon Circle 3D path 3D polygon

Measure the distance between two points on the ground

Map Length:	151.98	Feet
Ground Length:	151.99	
Heading:	88.68	degrees

Mouse Navigation Save Clear

Add or remove map data

Assessed Waters/Sediment

Water

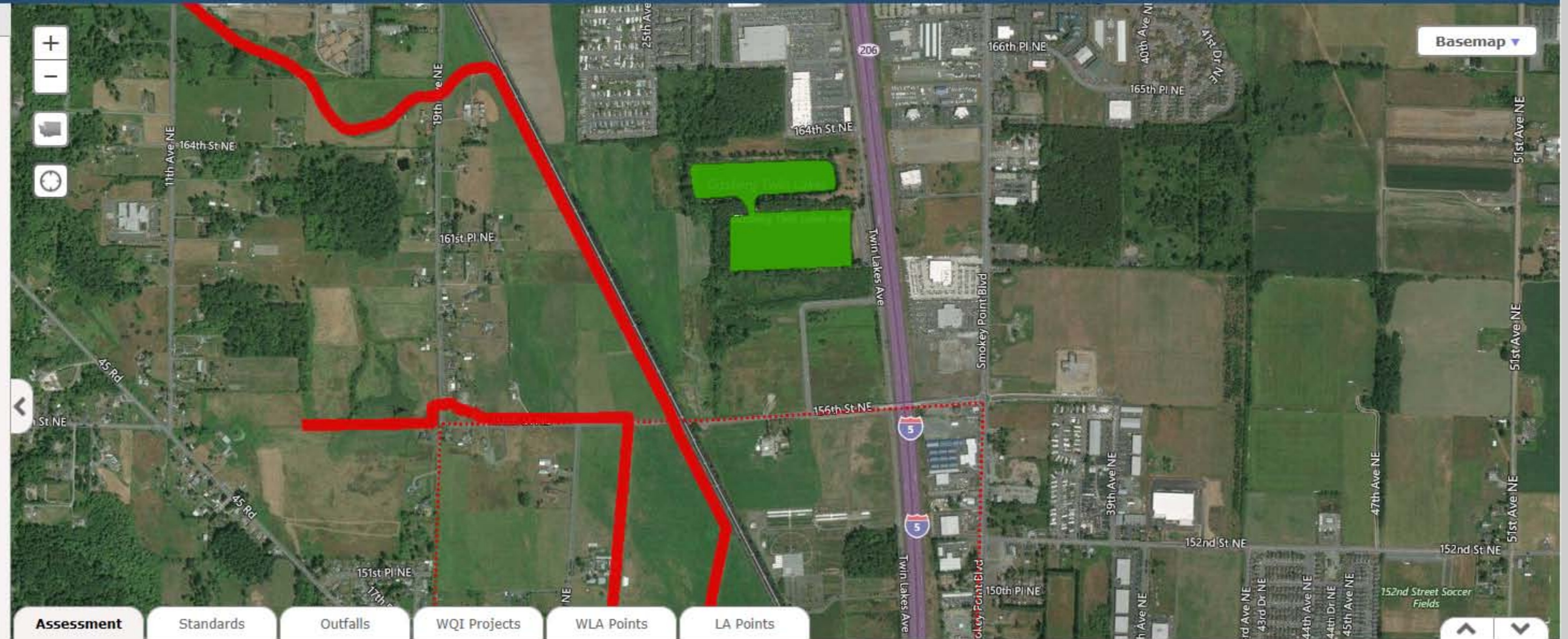
- █ Category 5 - 303d
- █ Category 4C
- █ Category 4B
- █ Category 4A
- █ Category 2
- █ Category 1

Sediment

- █ Category 5 - 303d
- █ Category 4C
- █ Category 4B
- █ Category 4A
- █ Category 2
- █ Category 1

Change map data transparency 10%

0 500 1000ft



[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
No filter applied, to view records filter data						
Showing 0 to 0 of 0 entries						

[Previous](#) [Next](#)

Listing ID: 7299			
Main Listing Information			
Listing ID: 7299	2014 Category: 5		
Waterbody Name: QUILCEDA CREEK, W.F.	2012 Category: 2		
Medium: Water	2008 Category: 2		
Parameter: Dissolved Oxygen	2004 Category: 2		
WQI Project: Snohomish River Estuary Multiparameter TMDL	On 1998 303(d) List?: Y		
Designated Use: None Assigned	On 1996 303(d) List?: Y		
Assessment Unit			
Assessment Unit ID: 17110011000521			
Location Identification			
Counties: Snohomish		WRIA: 7 - Snohomish	
Waterbody ID (WBID): None Assigned		Waterbody Class: RA	
Town/Range/Section (Legacy): 31N-5E-29			
Basis			
Location ID [WFQUICEDA25] -- In 2001, 10 of 10 samples (100.0%) showed an excursion of the criteria for this waterbody, (criterion = 9.5 mg/L).			
Location ID [WFQUICEDA25] -- In 2000, 1 of 1 sample (100.0%) showed an excursion of the criteria for this waterbody, (criterion = 9.5 mg/L).			
Thornburgh, et al. 1991. 13 excursions beyond the criterion at West Fork RM 4.0 between 8/87 and 11/90.			
Remarks			
Remark	Modified By	Modified On	Visibility
Combined Listing: Listing ID 47983 was rolled into this listing	Chad Brown	9/24/2015	Public
Changed from Category 2 to Category 5 due to the inclusion of data from Listing ID 47983 during the conversion to NHD	Ken Koch	8/7/2013	Public
EIM			
User Study ID:		User Location ID:	
G9900233		WFQUICEDA25	

Print

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DPII
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
_____ = Total Cover				Total % Cover of: _____ Multiply by:
_____ = Total Cover				OBL species _____ x 1 = _____
_____ = Total Cover				FACW species _____ x 2 = _____
_____ = Total Cover				FAC species _____ x 3 = _____
_____ = Total Cover				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
_____ = Total Cover				Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A = _____				Hydrophytic Vegetation Indicators:
1. <u>Saccic cereale</u> 100 NT				Dominance Test is >50% <input checked="" type="checkbox"/>
2. _____				Prevalence Index is ≤3.0' <input checked="" type="checkbox"/>
3. _____				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/>
4. _____				Wetland Non-Vascular Plants ¹ <input checked="" type="checkbox"/>
5. _____				Problematic Hydrophytic Vegetation ¹ (Explain) <input checked="" type="checkbox"/>
6. _____				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic <input checked="" type="checkbox"/>
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
12	10YR2/2						1mm	
16	10YR3/4						3mm/1mm	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining, M=Matrix
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:
 Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10)
 Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2)
 Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks)
 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)
 Depleted Below Dark Surface (A11) Depleted Matrix (F3)
 Thick Dark Surface (A12) Redox Dark Surface (F6)
 Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
 Sandy Gleyed Matrix (S4) Redox Depressions (F8)
³Indicators 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)	Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
High Water Table (A2)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturation (A3)	Drainage Patterns (B10)
Water Marks (B1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Aquatic Invertebrates (B13)
Drift Deposits (B3)	Hydrogen Sulfide Odor (C1)
Algal Mat or Crust (B4)	Oxidized Rhizospheres along Living Roots (C3)
Iron Deposits (B5)	Presence of Reduced Iron (C4)
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C6)
Inundation Visible on Aerial Imagery (B7)	Stunted or Stressed Plants (D1) (LRR A)
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)
	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? Yes _____ No Depth (inches): _____
 Wetland Hydrology Present? Yes _____ No
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.
 Remarks: no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#2
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NW 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No _____	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Trees Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
= Total Cover			

Shrub/Strawb Stratum (Plot size: _____)

Absolute % Cover	Dominant Species?	Indicator Status
1.		
2.		
3.		
4.		
5.		
= Total Cover		

Herb Stratum (Plot size: _____)

Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Sesuv</u>	<u>NT</u>
2.		
3.		
4.		
5.		
= Total Cover		

Woody Vine Stratum (Plot size: _____)

Absolute % Cover	Dominant Species?	Indicator Status
1.		
2.		
= Total Cover		

% Bare Ground in Herb Stratum _____

Remarks: _____

SOIL

Sampling Point: _____

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

Depth (feet)	Matrix		Redox Features		Type	Loc	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
10	<u>10YR 2/1.5</u>						<u>sub log</u>	
16	<u>10YR 3/3</u>						<u>sub log</u>	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
 --- Histosol (A1) --- Sandy Redox (S5) --- Indicators for Problematic Hydric Soils²:
 --- Hist. Epipedon (A2) --- Stripped Matrix (S6) --- 2 cm Muck (A10)
 --- Black Histic (A3) --- Loamy Mucky Mineral (F1) (except MLRA 1) --- Red Parent Material (TF2)
 --- Hydrogen Sulfide (A4) --- Loamy Gleyed Matrix (F2) --- Other (Explain in Remarks)
 --- Depleted Below Dark Surface (A11) --- Depleted Matrix (F3)
 --- Thick Dark Surface (A12) --- Redox Dark Surface (F8)
 --- Sandy Mucky Mineral (S1) --- Depleted Dark Surface (F7)
 --- Sandy Gleyed Matrix (S4) --- Redox Depressions (F8)
²Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B6) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Salt Crust (B11)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ 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? Yes _____ No Depth (inches): _____
 Wetland Hydrology Present? Yes _____ No
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: no indicators

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

Project/Site: Suthur City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: _____
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
--	---	---	--

Remarks: above normal rainfall - agricultural field w/ ditching + tile

VEGETATION - Use scientific names of plants.

Trees Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species x 1 = _____
3. _____				FACW species x 2 = _____
4. _____				FAC species x 3 = _____
5. _____				FACU species x 4 = _____
= Total Cover				UPL species x 5 = _____
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals: _____ (A) _____ (B)
1. <u>Scrub Shrub</u>	<u>100</u>		<u>RI</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum	_____			

Remarks: _____

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix	Color (moist)	%	Redox Features	Type ¹	Loc ²	Texture	Remarks
<u>7</u>		<u>10YR 2/2</u>					<u>10mm</u>	
<u>16</u>		<u>2.5Y 4/3</u>					<u>sandy loam</u>	

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

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

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

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)	Secondary Indicators (2 or more required)
— Surface Water (A1)	— Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
— High Water Table (A2)	— Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
— Saturation (A3)	— Drainage Patterns (B10)
— Water Marks (B1)	— Dry-Season Water Table (C2)
— Sediment Deposits (B2)	— Aquatic Invertebrates (B13)
— Drift Deposits (B3)	— Hydrogen Sulfide Odor (C1)
— Algal Mat or Crust (B4)	— Oxidized Rhizospheres along Living Roots (C3)
— Iron Deposits (B5)	— Presence of Reduced Iron (C4)
— Surface Soil Cracks (B6)	— Recent Iron Reduction in Tilled Soils (C6)
— Inundation Visible on Aerial Imagery (B7)	— Stunted or Stressed Plants (D1) (LRR A)
— Sparsely Vegetated Concave Surface (B8)	— Other (Explain in Remarks)
	— 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? Yes _____ No Depth (inches): _____
 (includes capillary fringe)
 Wetland Hydrology Present? Yes _____ No

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

Remarks: No indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#4
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWT 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
 Hydric Soil Present? Yes _____ No
 Wetland Hydrology Present? Yes _____ No
 Remarks: above normal rainfall - agricultural field w/ ditching + tile

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
= Total Cover			

Shrub/Strawb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
= Total Cover			

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Scirpus serotinus</u>			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
= Total Cover			

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
= Total Cover			

% Bare Ground in Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
= Total Cover			

Remarks: _____

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type	Loc.	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
6	10YR 2/2						10m	
16	7.5YR 2.5/3						5m	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils:
 ___ Histosol (A1) ___ Sandy Redox (S5) ___ 2 cm Muck (A10)
 ___ Histc Epipedon (A2) ___ Stripped Matrix (S6) ___ Red Parent Material (TF2)
 ___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ Other (Explain in Remarks)
 ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2)
 ___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3)
 ___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6)
 ___ Sandy Mucky Mineral (B1) ___ Depleted Dark Surface (F7)
 ___ Sandy Gleyed Matrix (S4) ___ Redox Depletions (F8)
 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? 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

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP# 5
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
1. _____				Total Number of Dominant Species Across All Strata: _____ (B)
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
Shrub/Straw Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				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)
Herb Stratum (Plot size: _____)				
1. <u>Corn stubble</u>	<u>20</u>	<u>NI</u>		
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover				Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is <3.0' ___ 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.
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix	%	Color (moist)	Redox Features	Type	Loc	Texture	Remarks
9	<u>10YR 2/1.5</u>						<u>tan</u>	
16	<u>10YR 3/3.5</u>						<u>sub lim</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils:
 ___ Histosol (A1) ___ Sandy Redox (S5) ___ 2 cm Muck (A10)
 ___ Histic Epipedon (A2) ___ Stripped Matrix (S6) ___ Red Parent Material (TF2)
 ___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ Other (Explain in Remarks)
 ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2)
 ___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3)
 ___ Thick Dark Surface (A12) ___ Redox Dark Surface (F8) ___ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
 ___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7)
 ___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F9)

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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Geomorphic Position (D2)
___ Algal Mat or Crust (B4)	___ Shallow Aquifers (D3)
___ Iron Deposits (B5)	___ FAC-Neutral Test (D5)
___ Surface Soil Cracks (B6)	___ Raised Ant Mounds (D6) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Frost-Heave Hummocks (D7)
___ Sparsely Vegetated Concave Surface (B8)	

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____ Wetland Hydrology Present? Yes _____ No
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

 Remarks: no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP26
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				Total % Cover of: _____ Multiply by:
= Total Cover				OBL species _____ x 1 = _____
= Total Cover				FACW species _____ x 2 = _____
= Total Cover				FAC species _____ x 3 = _____
= Total Cover				FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
= Total Cover				Hydrophytic Vegetation Indicators:
= Total Cover				Dominance Test is >50% _____
= Total Cover				Prevalence Index is ≥3.0 ¹ _____
= Total Cover				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
= Total Cover				Wetland Non-Vascular Plants ¹ _____
= Total Cover				Problematic Hydrophytic Vegetation ¹ (Explain) _____
= Total Cover				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. _____
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
= Total Cover				Remarks: _____

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0	10YR 3/2						10YR 3/2	
12	10YR 3/2		common				10YR 3/2	
16	10YR 3/2						10YR 3/2	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:

___ Histoel (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ Red Parent Material (TF2)
___ Bleck Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

³Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Geomorphic Position (D2)
___ Algal Mat or Crust (B4)	___ Shallow Aquifers (D3)
___ Iron Deposits (B5)	___ FAC-Neutral Test (D5)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ 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? Yes _____ No Depth (inches): _____ Wetland Hydrology Present? Yes _____ No
 (includes capillary fringe)

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

Remarks: to be monitored no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP# 7
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/> <u>2, 1</u>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (AB)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by:
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = BA = _____
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>CORN</u>			<u>NI</u>	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.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No _____
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type	Loc		
10	10YR2/1		Feu	100	10		Silty loam	
16	10YR3/2		Feu	100	10			

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

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

— Histosol (A1)	— Sandy Redox (S5)	— 2 cm Muck (A10)
— Histic Epipedon (A2)	— Stripped Matrix (S6)	— Red Parent Material (TF2)
— Black Histic (A3)	— Loamy Mucky Mineral (F1) (except MLRA 1)	— Other (Explain in Remarks)
— Hydrogen Sulfide (A4)	— Loamy Gleyed Matrix (F2)	
— Depleted Below Dark Surface (A11)	— Depleted Matrix (F3)	
— Thick Dark Surface (A12)	— Redox Dark Surface (F6)	
— Sandy Mucky Mineral (S1)	— Depleted Dark Surface (F7)	
— Sandy Gleyed Matrix (S4)	— Redox Depressions (F8)	

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)	Secondary Indicators (2 or more required)
— Surface Water (A1)	— Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
— High Water Table (A2)	— Drainage Patterns (B10)
— Saturation (A3)	— Dry-Season Water Table (C2)
— Water Marks (B1)	— Aquatic Invertebrates (B13)
— Sediment Deposits (B2)	— Hydrogen Sulfide Odor (C1)
— Drift Deposits (B3)	— Oxidized Rhizospheres along Living Roots (C3)
— Algal Mat or Crust (B4)	— Presence of Reduced Iron (C4)
— Iron Deposits (B5)	— Recent Iron Reduction in Tilled Soils (C6)
— Surface Soil Cracks (B6)	— Stunted or Stressed Plants (D1) (LRR A)
— Inundation Visible on Aerial Imagery (B7)	— Other (Explain in Remarks)
— Sparsely Vegetated Concave Surface (B8)	— Frost-Heave Hummocks (D7)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? 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 to be noted

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#B
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
5. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
= Total Cover				OBL species _____ x 1 = _____
= Total Cover				FACW species _____ x 2 = _____
= Total Cover				FAC species _____ x 3 = _____
= Total Cover				FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
= Total Cover				Column Totals: (A) _____ (B) _____
= Total Cover				Prevalence Index = B/A = _____
= Total Cover				Hydrophytic Vegetation Indicators:
= Total Cover				Dominance Test is >50% _____
= Total Cover				Prevalence Index is >3.0 ¹ _____
= Total Cover				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
= Total Cover				Wetland Non-Vascular Plants ¹ _____
= Total Cover				Problematic Hydrophytic Vegetation ¹ (Explain) _____
= Total Cover				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic _____
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
= Total Cover				% Bare Ground in Herb Stratum _____
= Total Cover				Remarks: _____

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0	10YR 2/1	_____	_____	_____	_____	_____	_____	_____
16	10YR 3/2	_____	_____	_____	_____	_____	_____	_____

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

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

___ Histic A (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ Red Parent Material (TF2)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

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)		Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Salt Crust (B11)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Saturation Visible on Aerial Imagery (C9)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Geomorphic Position (D2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Shallow Aquitard (D3)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ FAC-Neutral Test (D5)
___ Iron Deposits (B5)	___ Stunted or Stressed Plants (D1) (LRR A)	___ Raised Ant Mounds (D6) (LRR A)
___ Surface Soil Cracks (B6)	___ Other (Explain in Remarks)	___ Frost-Heave Hummocks (D7)
___ Inundation Visible on Aerial Imagery (B7)		
___ Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes No _____ Depth (inches): 8
 (includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks: hydrology to be monitored

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#9
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Corn</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
= Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
= Total Cover			
% Bare Ground in Herb Stratum _____			
Remarks: _____			

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
1'	10YR 2/1							
16"	10YR 2/2				Cm		sandy lo	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains² Location: PL=Pore Lining, M=Matrix

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S8)	___ Red Parent Material (TF2)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F8)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

¹Indicators 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)		Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Salt Crust (B11)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Saturation Visible on Aerial Imagery (C9)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Geomorphic Position (D2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Shallow Aquitard (D3)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ FAC-Neutral Test (D5)
___ Iron Deposits (B5)	___ Stunted or Stressed Plants (D1) (LRR A)	___ Raised Ant Mounds (D6) (LRR A)
___ Surface Soil Cracks (B6)	___ Other (Explain in Remarks)	___ Frost-Heave Hummocks (D7)
___ Inundation Visible on Aerial Imagery (B7)		
___ Sparsely Vegetated Concave Surface (B8)		

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes No _____ Depth (inches): -7"
 (includes capillary fringe)
 Wetland Hydrology Present? Yes No _____
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks: hydrology to be monitored

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#E10
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Let: _____ 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (AB)
4. _____				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 = _____
= Total Cover				
1. _____				
2. _____				
3. _____				
= Total Cover				
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 <input checked="" type="checkbox"/>				
Remarks:				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
5	10YR 2/1						Lam	
16	7.5YR 2/2		depletions				Volcanic ash	

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

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

___ Histic (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ Red Parent Material (TF2)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

¹Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes No _____ Depth (inches): 0" Wetland Hydrology Present? Yes No _____

(includes capillary fringe)

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

Remarks: Hydrology to be monitored was not continuously present

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: Ed Sewall State: WA Sampling Point: DPE11
 Investigator(s): Ed Sewall 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? 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: above normal rainfall - agricultural field w/ ditching + tile

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
1.			
2.			
3.			
4.			
Total Number of Dominant Species Across All Strata: _____ (B)			
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)			
Sapling/Shrub Stratum (Plot size: _____)	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____
1.			OBL species _____ x 1 = _____
2.			FACW species _____ x 2 = _____
3.			FAC species _____ x 3 = _____
4.			FACU species _____ x 4 = _____
5.			UPL species _____ x 5 = _____
Total Cover			Column Totals: _____ (A) _____ (B)
			Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)	= Total Cover		Hydrophytic Vegetation Indicators: — Dominance Test % >50% — Prevalence Index is ≤ 3.0 — 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.
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
Total Cover			
Woody Vine Stratum (Plot size: _____)	= Total Cover		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1.			
2.			
% Bare Ground in Herb Stratum	= Total Cover		
1.			
2.			
Remarks:			

SOIL

Sampling Point: _____

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	Log ²	Texture	Remarks
13	10YR2/1						Loam	
16	10YR3/3						ashy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:

- ___ Histosol (A1) _____ Sandy Redox (S8) _____ 2 cm Muck (A10)
- ___ Histic Epipedon (A2) _____ Stripped Matrix (S6) _____ Red Parent Material (TF2)
- ___ Bleck Histic (A3) _____ Loamy Mucky Mineral (F1) (except MLRA 1) _____ Other (Explain in Remarks)
- ___ Hydrogen Sulfide (A4) _____ Loamy Gleyed Matrix (F2)
- ___ Depleted Below Dark Surface (A11) _____ Depleted Matrix (F3)
- ___ Thick Dark Surface (A12) _____ Redox Dark Surface (F8)
- ___ Sandy Mucky Mineral (S1) _____ Depleted Dark Surface (F7)
- ___ Sandy Gleyed Matrix (S4) _____ Redox Depressions (F8)

³Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparingly Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes No _____ Depth (inches): -4"
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: hydrology to be monitored to determine lengths of presence

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#12
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ MNI 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				Prevalence Index worksheet:
5. _____				Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____
1. _____				FACW species _____ x 2 = _____
2. _____				FAC species _____ x 3 = _____
3. _____				FACU species _____ x 4 = _____
4. _____				UPL species _____ x 5 = _____
5. _____				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = _____
1. <u>corn</u>			<u>NI</u>	Hydrophytic Vegetation Indicators:
2. _____				Dominance Test is >50%
3. _____				Prevalence Index is <3.0'
4. _____				Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
5. _____				Wetland Non-Vascular Plants
6. _____				Problematic Hydrophytic Vegetation (Explain)
7. _____				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
8. _____				
9. _____				
10. _____				
11. _____				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
% Bare Ground in Herb Stratum _____ = Total Cover				
Remarks:				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
12	10YR 2/1							
16	7.5YR 2.5/2							Common red dot

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains² Location: PL=Pore Lining, M=Matrix

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ Red Parent Material (TF2)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Aquatic Invertebrates (B13)
___ Drift Deposits (B3)	___ Hydrogen Sulfide Odor (C1)
___ Algal Mat or Crust (B4)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Iron Deposits (B5)	___ Presence of Reduced Iron (C4)
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Sparsely Vegetated Concave Surface (B8)	___ Other (Explain in Remarks)
	___ 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? Yes _____ No Depth (inches): -8"
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks:
To be monitored to determine length of presence

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

Project/Site: Sather City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#13
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	<u>above normal rain fall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Prevalence Index worksheet:				
Total % Cover of: _____ Multiply by: _____				
Prevalence Index = B/A = _____				
Hydrophytic Vegetation Indicators:				
___ Dominance Test is >50%				
___ Prevalence Index is <3.0'				
___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
___ Wetland Non-Vascular Plants ¹				
___ Problematic Hydrophytic Vegetation ¹ (Explain)				
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				
___ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>				

Sandline/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carex</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
= Total Cover			

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
= Total Cover			

% Bare Ground in Herb Stratum _____	= Total Cover		
Remarks: _____			

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type	Loc	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
12	<u>10YR 3/2</u>						<u>5-7 in</u>	
16	<u>10YR 3/2</u>		<u>Fine Fine Fin</u>					

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

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ Red Parent Material (TF2)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (B1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B8) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks: To be monitored to determine length of presence if at all

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

Project/Site: Suth City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: Ed Sewall State: WA Sampling Point: DP# 141
 Investigator(s): Ed Sewall 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover: _____	Dominant Species? _____	Indicator Status _____	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				Prevalence Index worksheet:
Sandling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = _____
1. <u>Corn</u>	<u>100</u>	<u>NF</u>		Hydrophytic Vegetation Indicators:
2. _____				___ Dominance Test is >50%
3. _____				___ Prevalence Index is >3.0
4. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				___ Wetland Non-Vascular Plants ¹
6. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Remarks
	Color (moist)	%	Color (moist)	%	Type	Loc	
9	<u>10YR2/2</u>						<u>Sandy loam</u>
16	<u>10YR3/3</u>						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Linings, M=Matrix
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
 ___ Histic A1) ___ Sandy Redox (S5)
 ___ Histic Epipedon (A2) ___ Stripped Matrix (S6)
 ___ Bleck Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ 2 cm Muck (A10)
 ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2) ___ Red Parent Material (TF2)
 ___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3) ___ Other (Explain in Remarks)
 ___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6)
 ___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7)
 ___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)
³Indicators 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)		Secondary Indicators (2 or more required)	
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
___ High Water Table (A2)	___ Salt Crust (B11)	___ Drainage Patterns (B10)	
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Dry-Season Water Table (C2)	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Saturation Visible on Aerial Imagery (C9)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Geomorphic Position (D2)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Shallow Aquitard (D3)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ FAC-Neutral Test (D5)	
___ Iron Deposits (B5)	___ Stunted or Stressed Plants (D1) (LRR A)	___ Raised Ant Mounds (D6) (LRR A)	
___ Surface Soil Cracks (B6)	___ Other (Explain in Remarks)	___ Frost-Heave Hummocks (D7)	
___ Inundation Visible on Aerial Imagery (B7)			
___ Sparsely Vegetated Concave Surface (B8)			

Field Observations:
 Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringes)
 Wetland Hydrology Present? Yes No

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

Remarks: NO indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP# 15
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (Milestone, 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 <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				Prevalence Index worksheet:
Total % Cover of _____				Multiply by:
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A = _____				Hydrophytic Vegetation Indicators:
1. _____				Dominance Test is >50% _____
2. _____				Prevalence Index is <3.0 ¹ _____
3. _____				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
4. _____				Wetland Non-Vascular Plants ¹ _____
5. _____				Problematic Hydrophytic Vegetation ¹ (Explain) _____
6. _____				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
9	10YR 3/3							
16	10YR 7/2		Fou	Fm	Fm1		Silty loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:

___ Histosol (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ Red Parent Material (TF2)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

³Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Aquatic Invertebrates (B13)
___ Drift Deposits (B3)	___ Hydrogen Sulfide Odor (C1)
___ Algal Mat or Crust (B4)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Iron Deposits (B5)	___ Presence of Reduced Iron (C4)
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C5)
___ Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Sparsely Vegetated Concave Surfaces (B8)	___ Other (Explain in Remarks)
	___ Shallow Aquitard (D3)
	___ FAC-Neutral Test (D5)
	___ Raised Aet 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? Yes _____ No Depth (inches): _____
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#16
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hill slope, 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
_____ = Total Cover				Total % Cover of: _____ Multiply by: _____
Shrub/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____
1. _____	_____	_____	_____	FACW species _____ x 2 = _____
2. _____	_____	_____	_____	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species _____ x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
_____ = Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>low</u>	<u>100</u>	<u>NI</u>	<u>NI</u>	— Dominance Test is >90%
2. _____	_____	_____	_____	— Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	— Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	— Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____	— Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
13	10YR 2/2							
16	10YR 4/6						5 only in	

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

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

— Histosol (A1)	— Sandy Redox (S5)	— 2 cm Muck (A10)
— Histic Epipedon (A2)	— Stripped Matrix (S6)	— Red Parent Material (TF2)
— Black Histic (A3)	— Loamy Mucky Mineral (F1) (except MLRA 1)	— Other (Explain in Remarks)
— Hydrogen Sulfide (A4)	— Loamy Gleyed Matrix (F2)	
— Depleted Below Dark Surface (A11)	— Depleted Matrix (F3)	
— Thick Dark Surface (A12)	— Redox Dark Surface (F8)	
— Sandy Mineral (S1)	— Depleted Dark Surface (F7)	
— Sandy Gleyed Matrix (S4)	— Redox Depressions (F8)	

¹Indicators 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)	Secondary Indicators (2 or more required)
— Surface Water (A1)	— Water-Stained Leaves (B6) (except MLRA 1, 2, 4A, and 4B)
— High Water Table (A2)	— Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
— Saturation (A3)	— Drainage Patterns (B10)
— Water Marks (B1)	— Dry-Season Water Table (C2)
— Sediment Deposits (B2)	— Aquatic Invertebrates (B13)
— Drift Deposits (B3)	— Hydrogen Sulfide Odor (C1)
— Algal Mat or Crust (B4)	— Oxidized Rhizospheres along Living Roots (C3)
— Iron Deposits (B5)	— Presence of Reduced Iron (C4)
— Surface Soil Cracks (B6)	— Recent Iron Reduction in Tilled Soils (C6)
— Inundation Visible on Aerial Imagery (B7)	— Stunted or Stressed Plants (D1) (LRR A)
— Sparsely Vegetated Concave Surface (B8)	— Other (Explain in Remarks)
	— Fossil Heave Hummocks (D7)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)
 Wetland Hydrology Present? Yes _____ No

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

Remarks: no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#17
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
= Total Cover			
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
= Total Cover			
Herb Stratum (Plot size: _____)			
1. <u>can</u>	<u>100</u>	<u>NI</u>	
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
= Total Cover			
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
= Total Cover			
Remarks: _____			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC: _____	(A)
Total Number of Dominant Species Across All Strata: _____	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC: _____	(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 $\geq 3.0^1$	
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 <input checked="" type="checkbox"/>	

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
14	10YR	3/3						

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

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ Indicators for Problematic Hydric Soils ¹ :
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

¹Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B6) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Salt Crust (B11)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Slanted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: No indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#48
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tier Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				Total % Cover of: _____ Multiply by: _____
= Total Cover				OBL species _____ x 1 = _____
= Total Cover				FACW species _____ x 2 = _____
= Total Cover				FAC species _____ x 3 = _____
= Total Cover				FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
= Total Cover				Hydrophytic Vegetation Indicators:
= Total Cover				Dominance Test is >50% _____
= Total Cover				Prevalence Index is <3.0 ¹ _____
= Total Cover				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
= Total Cover				Wetland Non-Vascular Plants ¹ _____
= Total Cover				Problematic Hydrophytic Vegetation ¹ (Explain) _____
= Total Cover				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
= Total Cover				% Bare Ground in Herb Stratum _____
= Total Cover				Remarks: _____

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Texture	Remarks
	Color (moist)	%	Color (moist)	%		
7	10YR 2/2					
16	10YR 3/3					Silty loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils:
 Histosol (A1) _____ Sandy Redox (S8) _____ 2 cm Muck (A10) _____
 Histic Epipedon (A2) _____ Stripped Matrix (S6) _____ Red Parent Material (TF2) _____
 Bleck Histic (A3) _____ Loamy Mucky Mineral (F1) (except MLRA 1) _____ Other (Explain in Remarks) _____
 Hydrogen Sulfide (A4) _____ Loamy Gleyed Matrix (F2) _____
 Depleted Below Dark Surface (A11) _____ Depleted Matrix (F3) _____
 Thick Dark Surface (A12) _____ Redox Dark Surface (F6) _____
 Sandy Mucky Mineral (S1) _____ Depleted Dark Surface (F7) _____
 Sandy Gleyed Matrix (S4) _____ Redox Depressions (F8) _____
 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)	Secondary Indicators (2 or more required)
Surface Water (A1) _____	Water-Stained Leaves (B6) (except MLRA 1, 2, 4A, and 4B) _____
High Water Table (A2) _____	Drainage Patterns (B10) _____
Saturation (A3) _____	Dry-Season Water Table (C2) _____
Water Marks (B1) _____	Aquatic Invertebrates (B13) _____
Sediment Deposits (B2) _____	Hydrogen Sulfide Odor (C1) _____
Drift Deposits (B3) _____	Oxidized Rhizospheres along Living Roots (C3) _____
Algal Mat or Crust (B4) _____	Presence of Reduced Iron (C4) _____
Iron Deposits (B5) _____	Recent Iron Reduction in Tilled Soils (C6) _____
Surface Soil Cracks (B6) _____	Stunted or Stressed Plants (D1) (LRR A) _____
Inundation Visible on Aerial Imagery (B7) _____	Other (Explain in Remarks) _____
Sparsely Vegetated Concave Surface (B8) _____	Frost-Heave Hummocks (D7) _____

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)
 Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP219
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hilllope, 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 <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				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 <input checked="" type="checkbox"/>				

Shrub/Strawb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
= Total Cover			

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>corn</u>	<u>100</u>		<u>NI</u>
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
= Total Cover			

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
= Total Cover			

% Bare Ground in Herb Stratum _____

Remarks: _____

SOIL

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

Depth (inches)	Matrix		Redox Features		Type	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0	10YR 2/1	2/1						
10	10YR 3/3						subly cony	

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

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ Indicators for Problematic Hydric Soils ³ :
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10)
___ Bleck Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (B1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

³Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Aquatic Invertebrates (B13)
___ Drift Deposits (B3)	___ Hydrogen Sulfide Odor (C1)
___ Algal Mat or Crust (B4)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Iron Deposits (B5)	___ Presence of Reduced Iron (C4)
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Sparsely Vegetated Concave Surface (B8)	___ Other (Explain in Remarks)
	___ 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? Yes _____ No Depth (inches): _____ Wetland Hydrology Present? Yes _____ No
 (include capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks: no indicators

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

Project/Site: Suth City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DPE 20
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rain Fall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				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% _____
				Surface Index is $\leq 3.0^1$ _____
				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 <input checked="" type="checkbox"/>
				% Bare Ground in Herb Stratum _____ = Total Cover
				Remarks: _____

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
<u>16</u>	<u>10YR 2/2</u>						<u>sly lo</u>	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (B1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (B4)	<input type="checkbox"/> Redox Depressions (F8)	

¹Indicators 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)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____ Wetland Hydrology Present? Yes _____ No
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no indicators

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

Project/Site: Suther City/County: Marionville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP# 21
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (Milestone, 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain Fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				
4. _____				
5. _____				
= Total Cover				
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)				
Sandbar/Strub Stratum (Plot size: _____)	Prevalence Index worksheet:			
1. _____	Total % Cover of _____ Multiply by:			
2. _____	OBL species _____ x 1 =			
3. _____	FACW species _____ x 2 =			
4. _____	FAC species _____ x 3 =			
5. _____	FACU species _____ x 4 =			
= Total Cover				
UPL species _____ x 5 =				
Column Totals: _____ (A) _____ (B)				
Prevalence Index = B/A = _____				
Herb Stratum (Plot size: _____)	Hydrophytic Vegetation Indicators:			
1. <u>CONN</u>	Dominance Test is >50% _____			
2. _____	Prevalence Index is >3.0 ¹ _____			
3. _____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____			
4. _____	Wetland Non-Vascular Plants ¹ _____			
5. _____	Problematic Hydrophytic Vegetation ¹ (Explain) _____			
6. _____	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. _____			
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>			
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix			Redox Features				Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	
7	<u>10YR 2/1</u>							<u>5dy tan</u>
16	<u>10YR 3/3</u>							
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ³ Location: PL=Pore Lining, M=Matrix								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :								
Histosol (A1)			Sandy Redox (S5)			2 cm Muck (A10)		
Histic Epipedon (A2)			Stripped Matrix (S6)			Red Parent Material (TF2)		
Black Histic (A3)			Loamy Mucky Mineral (F1) (except MLRA 1)			Other (Explain in Remarks)		
Hydrogen Sulfide (A4)			Loamy Gleyed Matrix (F2)					
Depleted Below Dark Surface (A11)			Depleted Matrix (F3)					
Thick Dark Surface (A12)			Redox Dark Surface (F8)			Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Sandy Mucky Mineral (S1)			Depleted Dark Surface (F7)					
Sandy Gleyed Matrix (S4)			Redox Depressions (F6)					
Restrictive Layer (if present):								
Type: _____								
Depth (inches): _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>								
Remarks: <u>no indicators</u>								

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
High Water Table (A2)	Salt Crust (B11)	Drainage Patterns (B10)	
Saturation (A3)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)	
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	Geomorphic Position (D2)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)	
Algal Mat or Crust (B4)	Racem Iron Reduction in Tilled Soils (C6)	FAC-Neutral Test (D5)	
Iron Deposits (B5)	Stunted or Stressed Plants (D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)	
Surface Soil Cracks (B6)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)	
Inundation Visible on Aerial Imagery (B7)			
Sparsely Vegetated Concave Surface (B8)			

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks: no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#22
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>corn</u>	<u>100</u>	<u>NE</u>	<u>NE</u>	___ Dominance Test is >50%
2. _____				___ Prevalence Index is >3.0 ¹
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Wetland Non-Vascular Plants ¹
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
8	10YR2/1						10cm	
10	10YR3/3						95cm	
14	10Y2/2				Silty		1cm	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:

___ Histosol (A1)	___ Sandy Redox (S8)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ Red Parent Material (TF2)
___ Bleck Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Other (Explain in Remarks)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

³Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B6)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ 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? Yes No _____ Depth (inches): -6"
 (include capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Wetland Hydrology Present? Yes _____ No

Remarks: to be monitored to determine if hydrology is continuous

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#23
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (Mounds, terraces, 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				
Saccoling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species x 1 = _____
3. _____				FACW species x 2 = _____
4. _____				FACU species x 3 = _____
5. _____				FACU species x 4 = _____
= Total Cover				UPL species x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A = _____				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>corn</u>	<u>LOW</u>		<u>NI</u>	___ Dominance Test is >50%
2. _____				___ Prevalence Index is >3.0 ¹
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Wetland Non-Vascular Plants ¹
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum	_____			
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)	%	%	Color (moist)	%	Type ¹	Loc ²		
14	10Y2/2	3/2		Fair	Fair	Fair		loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
 --- Histic A1) --- Sandy Redox (S5) --- Indicators for Problematic Hydric Soils³
 --- Histic Epipedon (A2) --- Stripped Matrix (S6) --- 2 cm Muck (A10)
 --- Black Histic (A3) --- Loamy Mucky Mineral (F1) (except MLRA 1) --- Red Parent Material (TF2)
 --- Hydrogen Sulfide (A4) --- Loamy Gleyed Matrix (F2) --- Other (Explain in Remarks)
 --- Depleted Below Dark Surface (A11) --- Depleted Matrix (F3)
 --- Thick Dark Surface (A12) --- Redox Dark Surface (F6) ---
 --- Sandy Mucky Mineral (S1) --- Depleted Dark Surface (F7) ---
 --- Sandy Gleyed Matrix (S4) --- Redox Depressions (F8) ---

³Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B6) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C8)
___ Drift Deposits (B3)	___ Geomorphic Position (D2)
___ Algal Mat or Crust (B4)	___ Shallow Aquitard (D3)
___ Iron Deposits (B5)	___ FAC-Neutral Test (D5)
___ Surface Soil Cracks (B6)	___ Raised Ant Mounds (D6) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Frost-Heave Hummocks (D7)
___ Sparsely Vegetated Concave Surface (B8)	___ Other (Explain in Remarks)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)
 Wetland Hydrology Present? Yes _____ No

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

Remarks: To be monitored

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
Applicant/Owner: Ed Sewall State: WA Sampling Point: DPE 24

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

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Remarks: above normal rainfall - agricultural field w/ ditching + tile

VEGETATION - Use scientific names of plants.

Tree Stratum, Sapling/Shrub Stratum, Herb Stratum, Woody Vine Stratum
Absolute % Cover, Dominant Species?, Status
Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)

SOIL

Sampling Point:

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 Loc Texture Remarks

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one required, check all that apply)
Secondary Indicators (2 or more required)
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)

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DPT 25
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>		

VEGETATION - Use scientific names of plants.

Trees Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = _____
1. <u>can</u>	<u>100</u>	<u>NE</u>		Hydrophytic Vegetation Indicators:
2. _____				— Dominance Test is >50%
3. _____				— Prevalence Index is ≤3.0 ¹
4. _____				— Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				— Wetland Non-Vascular Plants ¹
6. _____				— Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)					
Depth (inches)	Matrix	%	Color (moist)	Redox Features	Remarks
12	<u>10YR 2/2</u>				
14	<u>7.5YR 2.5/3</u>			<u>Salty iron</u>	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					
— Histic A1 (A1)	— Sandy Redox (S5)			Indicators for Problematic Hydric Soils ²	
— Histic Epipedon (A2)	— Stripped Matrix (S6)			— 2 cm Muck (A10)	
— Bleck Histic (A3)	— Loamy Mucky Mineral (F1) (except MLRA 1)			— Red Parent Material (TF2)	
— Hydrogen Sulfide (A4)	— Loamy Gleyed Matrix (F2)			— Other (Explain in Remarks)	
— Depleted Below Dark Surface (A11)	— Depleted Matrix (F3)				
— Thick Dark Surface (A12)	— Redox Dark Surface (F6)			Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
— Sandy Mucky Mineral (S1)	— Depleted Dark Surface (F7)				
— Sandy Gleyed Matrix (S4)	— Redox Depressions (F8)				
Restrictive Layer (if present):					
Type: _____					
Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>				
Remarks: <u>No indicators</u>					

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required, check all that apply)		
— Surface Water (A1)	— Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	— Secondary Indicators (2 or more required)
— High Water Table (A2)	— Salt Crust (B11)	— Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
— Saturation (A3)	— Aquatic Invertebrates (B13)	— Drainage Patterns (B10)
— Water Marks (B1)	— Hydrogen Sulfide Odor (C1)	— Dry-Season Water Table (C2)
— Sediment Deposits (B2)	— Oxidized Rhizospheres along Living Roots (C3)	— Saturation Visible on Aerial Imagery (C9)
— Drift Deposits (B3)	— Presence of Reduced Iron (C4)	— Geomorphic Position (D2)
— Algal Mat or Crust (B4)	— Recent Iron Reduction in Tilled Soils (C6)	— Shallow Aquitard (D3)
— Iron Deposits (B5)	— Stunted or Stressed Plants (D1) (LRR A)	— FAC-Neutral Test (D5)
— Surface Soil Cracks (B6)	— Other (Explain in Remarks)	— Raised Aft Mounds (D6) (LRR A)
— Inundation Visible on Aerial Imagery (B7)		— Frost-Heave Hummocks (D7)
— Sparsely Vegetated Concave Surface (B8)		
Field Observations:		
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <u>No indicators</u>		

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

Project/Site: Sethur City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#26
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain Fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				Total % Cover of: _____ Multiply by: _____
Shrub/Straw Stratum (Plot size: _____)	_____	_____	_____	OBL species _____ x 1 = _____
1. _____	_____	_____	_____	FACW species _____ x 2 = _____
2. _____	_____	_____	_____	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species _____ x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)	_____	_____	_____	Hydrophytic Vegetation Indicators:
1. <u>20%</u>	_____	_____	_____	Dominance Test is >50% _____
2. _____	_____	_____	_____	Prevalence Index is ≤3.0 ¹ _____
3. _____	_____	_____	_____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
4. _____	_____	_____	_____	Wetland Non-Vascular Plants ¹ _____
5. _____	_____	_____	_____	Problematic Hydrophytic Vegetation ¹ (Explain) _____
6. _____	_____	_____	_____	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic _____
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point _____

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	Loc	Texture	Remarks
10	10YR2/2							
10	7.5YR	2.5/3						gully line

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining, M=Matrix
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils¹:
 ___ Histosol (A1) ___ Sandy Redox (S5) ___ 2 cm Muck (A10)
 ___ Histic Epipedon (A2) ___ Stripped Matrix (S6) ___ Red Parent Material (TF2)
 ___ Bleak Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ Other (Explain in Remarks)
 ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2)
 ___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3)
 ___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6) ¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
 ___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7)
 ___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)

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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Geomorphic Position (D2)
___ Algal Mat or Crust (B4)	___ Shallow Aquitard (D3)
___ Iron Deposits (B5)	___ FAC-Neutral Test (D5)
___ Surface Soil Cracks (B6)	___ Raised Ant Mounds (D6) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Frost-Heave Hummocks (D7)
___ Other (Explain in Remarks)	
___ Sparsely Vegetated Concave Surface (B8)	

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? 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

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

Project/Site: Sethu City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#27
 Investigator(s): Ed Sewall 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? 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.					Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)	
2.					Total Number of Dominant Species Across All Strata: _____ (B)	
3.					Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
4.					= Total Cover	
Shrub/Straw Stratum (Plot size: _____)				Prevalence Index worksheet:		
1.				Total % Cover of: _____ Multiply by: _____		
2.				OBL species _____ x 1 = _____		
3.				FACW species _____ x 2 = _____		
4.				FAC species _____ x 3 = _____		
5.				FACU species _____ x 4 = _____		
				UPL species _____ x 5 = _____		
				Column Totals: _____ (A) _____ (B)		
				Prevalence Index = B/A = _____		
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:		
1.	<u>corn</u>	<u>100</u>	<u>NI</u>	Dominance Test is >50% _____		
2.				Prevalence Index is <3.0 ¹ _____		
3.				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____		
4.				Wetland Non-Vascular Plants ¹ _____		
5.				Problematic Hydrophytic Vegetation ¹ (Explain) _____		
6.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
7.						
8.						
9.						
10.						
11.						
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>		
Woody Vine Stratum (Plot size: _____)						
1.						
2.						
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>		
% Bare Ground in Herb Stratum						
Remarks:						

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
13	10YR 2/2							
16	10YR 3/3						<u>Silty loam</u>	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S6)	<input type="checkbox"/> Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B6) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C6)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks: No indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP# 34
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (L,RR): _____ 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ = Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
Savanna/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ = Total Cover	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 = _____
Herb Stratum (Plot size: _____) 1. <u>Corn</u> <u>100</u> <u>NF</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ = Total Cover	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
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ = Total Cover	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	

SOIL

Sampling Point: _____

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	Loc	Texture	Remarks
11	10Yh2/2							
16	10Yh3/2		Few Fine Fin					

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

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

___ Histosol (A1)	___ Sandy Redox (S6)	___ Indicators for Problematic Hydric Soils ¹
___ Hielic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10)
___ Bleck Hielic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 Wetland Hydrology Present? Yes _____ No

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

Remarks: to be monitored for continuous hydrology

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP# 35
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				Prevalence Index worksheet:
= Total Cover				Total % Cover of: _____ Multiply by:
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FACU species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = _____
1. <u>CORN</u>	<u>100</u>	<u>N</u>	<u>N</u>	Hydrophytic Vegetation Indicators:
2. _____				___ Dominance Test is >50%
3. _____				___ Prevalence Index is $\leq 3.0^1$
4. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				___ Wetland Non-Vascular Plants ¹
6. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
9. _____				
10. _____				
11. _____				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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	Loc	Texture	Remarks
10	10YR 2/2									
16	10YR 2/2			Fin Fine Fin						

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

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

___ Histosol (A1)	___ Sandy Redox (S8)	___ Indicators for Problematic Hydric Soils ¹ :
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10)
___ Bleck Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C8)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)
 Wetland Hydrology Present? Yes _____ No

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

Remarks: to be monitored

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

Project/Site: Sethu City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP# 37
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hilllope, 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				Prevalence Index worksheet:
Sedg/Stem/Strub Stratum (Plot size: _____) = Total Cover				Total % Cover of: _____ Multiply by: _____
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
Herb Stratum (Plot size: _____) = Total Cover				Column Totals: _____ (A) _____ (B)
1. <u>CON</u>	<u>100</u>		<u>NF</u>	Prevalence Index = B/A = _____
2. _____				Hydrophytic Vegetation Indicators:
3. _____				— Dominance Test is >50%
4. _____				— Prevalence Index is ≤3.0
5. _____				— Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. _____				— Wetland Non-Vascular Plants ¹
7. _____				— Problematic Hydrophytic Vegetation ¹ (Explain)
8. _____				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
9. _____				
10. _____				
11. _____				
Woody Vine Stratum (Plot size: _____) = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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	Loc	Texture	Remarks
<u>12</u>	<u>10YR 3/2</u>							
<u>16</u>	<u>10YR 3/3</u>						<u>fine</u>	

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

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

Indicators for Problematic Hydric Soils:
— Histic soil (A1) _____ Sandy Redox (S5) _____
— Histic Epipedon (A2) _____ Stripped Matrix (S6) _____
— Bleck Histic (A3) _____ Loamy Mucky Mineral (F1) (except MLRA 1) _____
— Hydrogen Sulfide (A4) _____ Loamy Gleyed Matrix (F2) _____
— Depleted Below Dark Surface (A11) _____ Depleted Matrix (F3) _____
— Thick Dark Surface (A12) _____ Redox Dark Surface (F6) _____
— Sandy Mucky Mineral (S1) _____ Depleted Dark Surface (F7) _____
— Sandy Gleyed Matrix (S4) _____ Redox Depressions (F8) _____

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)	Secondary Indicators (2 or more required)
— Surface Water (A1) _____	— Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) _____
— High Water Table (A2) _____	— Drainage Patterns (B10) _____
— Saturation (A3) _____	— Dry-Season Water Table (C2) _____
— Water Marks (B1) _____	— Saturation Visible on Aerial Imagery (C9) _____
— Sediment Deposits (B2) _____	— Geomorphic Position (D2) _____
— Drill Deposits (B3) _____	— Shallow Aquitard (D3) _____
— Algal Mat or Crust (B4) _____	— FAC-Neutral Test (D5) _____
— Iron Deposits (B5) _____	— Raised Ant Mounds (D6) (LRR A) _____
— Surface Soil Cracks (B6) _____	— Frost-Heave Hummocks (D7) _____
— Inundation Visible on Aerial Imagery (B7) _____	— Other (Explain in Remarks) _____
— Sparsely Vegetated Concave Surface (B8) _____	

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

 Remarks: no indicators

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: Ed Sewall State: WA Sampling Point: DP#38
 Investigator(s): Ed Sewall Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Let: Long: Datum:
 Soil Map Unit Name: NW 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditches + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
1. _____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
= Total Cover				Total Number of Dominant Species Across All Strata: _____ (B)
Shrub/Strub Stratum (Plot size: _____)	= Total Cover			Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____			_____
2. _____	_____			_____
3. _____	_____			_____
4. _____	_____			_____
5. _____	_____			_____
= Total Cover				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 = _____
Herb Stratum (Plot size: _____)	= Total Cover			Hydrophytic Vegetation Indicators:
1. <u>POAN</u>	<u>100</u>			___ Dominance Test is >50%
2. _____	_____			___ Prevalence Index is <3.0 ¹
3. _____	_____			___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____			___ Wetland Non-Vascular Plants ¹
5. _____	_____			___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
7. _____	_____			
8. _____	_____			
9. _____	_____			
10. _____	_____			
11. _____	_____			
= Total Cover				
Woody Vine Stratum (Plot size: _____)	= Total Cover			Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
1. _____	_____			
2. _____	_____			
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix			Redox Features			Texture	Remarks
	Color (moist)	%	%	Type ¹	Loc ²			
13	10YR 2/2							
16	10YR 3/3						Town	

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

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ Indicators for Problematic Hydric Soils ³ :
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10)
___ Bleck Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

³Indicators 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)		Secondary Indicators (2 or more required)	
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
___ High Water Table (A2)	___ Salt Crust (B11)	___ Drainage Patterns (B10)	
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Dry-Season Water Table (C2)	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Saturation Visible on Aerial Imagery (C9)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Geomorphic Position (D2)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Shallow Aquitard (D3)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ FAC-Neutral Test (D5)	
___ Iron Deposits (B5)	___ Stunted or Stressed Plants (D1) (LRR A)	___ Raised Ant Mounds (D6) (LRR A)	
___ Surface Soil Cracks (B6)	___ Other (Explain in Remarks)	___ Frost-Heave Hummocks (D7)	
___ Inundation Visible on Aerial Imagery (B7)			
___ Sparsely Vegetated Concave Surface (B8)			

Field Observations:

Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks: no indicators

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

Project/Site: Sethu City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#39
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (L,RR): _____ 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		Yes _____ No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				
Sand/Grass/Straw Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals: _____ (A) _____ (B)
1. <u>CORN</u>	<u>100</u>	<u>ACT</u>		
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index = B/A = _____
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum				
Remarks:				

SOIL Sampling Point: _____

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

Depth (inches)	Matrix	Color (moist)	%	Color (moist)	%	Type	Loc	Texture	Remarks
10									
10	<u>10YR 3/2.5</u>							<u>1 cm</u>	
10	<u>2.5Y 3/2</u>							<u>sub 1m</u>	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)									
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Blek Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Redox Depressions (F8)					Indicators for Problematic Hydric Soils: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)				
Restrictive Layer (if present): Type: _____ Depth (inches): _____									
Remarks: <u>no indicators</u>									

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one required, check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparingly Vegetated Concave Surface (B8)		
Field Observations:		
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.		
Remarks: <u>no indicators</u>		

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

Project/Site: Sethur City/County: Marysville Sampling Date: 3-21-17
Applicant/Owner: Ed Sewall State: WA Sampling Point: DPE 40
Investigator(s): Ed Sewall Section, Township, Range: _____
Landform (hillside, 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
Hydric Soil Present? Yes _____ No
Wetland Hydrology Present? Yes _____ No
is the Sampled Area within a Wetland? Yes _____ No
Remarks: above normal rain Fall - agricultural field w/ ditching + tile

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____) Absolute % Cover: _____ Dominant Species? _____ Status _____
1. _____
2. _____
3. _____
4. _____
= Total Cover _____
Shrub/Strawb Stratum (Plot size: _____) Absolute % Cover: _____ Dominant Species? _____ Status _____
1. _____
2. _____
3. _____
4. _____
5. _____
= Total Cover _____
Herb Stratum (Plot size: _____) Absolute % Cover: 100 Dominant Species? NT
1. CORN
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
= Total Cover _____
Woody Vine Stratum (Plot size: _____) Absolute % Cover: _____ Dominant Species? _____ Status _____
1. _____
2. _____
= Total Cover _____
% Bare Ground in Herb Stratum _____
Remarks: _____

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (inches): _____ Matrix: _____ Redox Features: _____
Color (moist): _____ % _____ Type: _____ Loc: _____ Texture: _____ Remarks: _____
12 10YR 3/2 _____ _____ _____ _____ _____ _____
16 10YR 3/3 _____ _____ _____ _____ _____ _____
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
Restrictive Layer (if present): _____
Type: _____ Depth (inches): _____
Remarks: NO indicators

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one required, check all that apply):
Secondary Indicators (2 or more required):
Surface Water (A1) _____ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) _____
High Water Table (A2) _____ Salt Crust (B11) _____
Saturation (A3) _____ Aquatic Invertebrates (B13) _____
Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____
Sediment Deposits (B2) _____ Oxidized Rhizospheres along Living Roots (C3) _____
Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____
Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____
Iron Deposits (B5) _____ Stunted or Stressed Plants (D1) (LRR A) _____
Surface Soil Cracks (B6) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____
Sparse Vegetated Concave Surface (B8) _____
Field Observations:
Surface Water Present? Yes _____ No Depth (inches): _____
Water Table Present? Yes _____ No Depth (inches): _____
Saturation Present? Yes _____ No Depth (inches): _____
Wetland Hydrology Present? Yes _____ No
Remarks: NO indicators

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

Project/Site: Sethur City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP-41
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				Total % Cover of: _____ Multiply by: _____
Shrub/Strub Stratum (Plot size: _____)	_____	_____	_____	OBL species _____ x 1 = _____
1. _____	_____	_____	_____	FACW species _____ x 2 = _____
2. _____	_____	_____	_____	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species _____ x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)	_____	_____	_____	Hydrophytic Vegetation Indicators:
1. <u>Pennisetum</u>	<u>100</u>	_____	<u>NI</u>	Dominance Test is >50% _____
2. _____	_____	_____	_____	Prevalence Index is ≤ 3.0 _____
3. _____	_____	_____	_____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
4. _____	_____	_____	_____	Wetland Non-Vascular Plants ¹ _____
5. _____	_____	_____	_____	Problematic Hydrophytic Vegetation ¹ (Explain) _____
6. _____	_____	_____	_____	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Remarks
	Color (moist)	%	Color (moist)	%	Type	Loc	
14	10YR 2/1.5	_____	_____	_____	_____	_____	_____
16	10YR 3/2	_____	_____	_____	_____	_____	_____

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains² Location: PL=Pore Lining, M=Matrix

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ Indicators for Problematic Hydric Soils ³ :
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	

³Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Salt Crust (B11)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)
___ Sparsely Vegetated Concave Surface (B8)	___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks: to be monitored

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#42
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals: _____ (A) _____ (B)
1. <u>Comm</u>	<u>100</u>	<u>NI</u>		
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum				
Remarks: _____				

SOIL

Sampling Point: _____

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	Loc	Texture	Remarks
<u>10</u>	<u>10YR 2/1.5</u>							
<u>16</u>	<u>10YR 2/2</u>							<u>Comm. and detritus silt/clay lam</u>

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pure Lining, M=Matrix

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

— Histosol (A1)	— Sandy Redox (S5)	Indicators for Problematic Hydric Soils:
— Histic Epipedon (A2)	— Stripped Matrix (S6)	— 2 cm Muck (A10)
— Black Histic (A3)	— Loamy Mucky Mineral (F1) (except MLRA 1)	— Red Parent Material (TF2)
— Hydrogen Sulfide (A4)	— Loamy Gleyed Matrix (F2)	— Other (Explain in Remarks)
— Depleted Below Dark Surface (A11)	— Depleted Matrix (F3)	
— Thick Dark Surface (A12)	— Redox Dark Surface (F6)	
— Sandy Mucky Mineral (S1)	— Depleted Dark Surface (F7)	
— Sandy Gleyed Matrix (S4)	— Redox Depressions (F8)	

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)	Secondary Indicators (2 or more required)
— Surface Water (A1)	— Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
— High Water Table (A2)	— Drainage Patterns (B10)
— Saturation (A3)	— Dry-Season Water Table (C2)
— Water Marks (B1)	— Saturation Visible on Aerial Imagery (C9)
— Sediment Deposits (B2)	— Oxidized Rhizospheres along Living Roots (C3)
— Drift Deposits (B3)	— Presence of Reduced Iron (C4)
— Algal Mat or Crust (B4)	— Recent Iron Reduction in Tilled Soils (C6)
— Iron Deposits (B5)	— Stunted or Stressed Plants (D1) (LRR A)
— Surface Soil Cracks (B6)	— Other (Explain in Remarks)
— Inundation Visible on Aerial Imagery (B7)	— Frost-Heave Hummocks (D7)
— Sparsely Vegetated Concave Surface (B8)	

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks: to be monitored

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#43
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (Mtslope, 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes _____ No _____	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Trees Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover			
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>CORN</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
= Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
= Total Cover			
% Bare Ground in Herb Stratum _____			
Remarks: _____			

SOIL

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	Loc	Texture	Remarks
11	<u>10YR 2/1.5</u>							
16	<u>10YR 3/2</u>		<u>C and</u>				<u>5.75</u>	<u>tan compact</u>

Type: C=Concentration, D=Dispersion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pure Lining, M=Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils:
 ___ Histosol (A1) ___ Sandy Redox (S5) ___ 2 cm Muck (A10)
 ___ Histic Epipedon (A2) ___ Stripped Matrix (S8) ___ Red Parent Material (TF2)
 ___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ Other (Explain in Remarks)
 ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2)
 ___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3)
 ___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6) ___ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
 ___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7)
 ___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)

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)	Secondary Indicators (2 or more required)
___ Surface Water (A1) ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2) ___ Salt Crust (B11)	___ Drainage Patterns (B10)
___ Saturation (A3) ___ Aquatic Invertebrates (B13)	___ Dry-Season Water Table (C2)
___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1)	___ Saturation Visible on Aerial Imagery (C9)
___ Sediment Deposits (B2) ___ Oxidized Rhizospheres along Living Roots (C3)	___ Geomorphic Position (D2)
___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4)	___ Shallow Aquifer (D3)
___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6)	___ FAC-Neutral Test (D5)
___ Iron Deposits (B5) ___ Stunted or Stressed Plants (D1) (LRR A)	___ Raised Ant Mounds (D6) (LRR A)
___ Surface Soil Cracks (B6) ___ Other (Explain in Remarks)	___ Frost-Heave Hummocks (D7)
___ Inundation Visible on Aerial Imagery (B7) ___ Sparsely Vegetated Concave Surface (B8)	

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes No _____ Depth (inches): -6"
 (includes capillary fringe) Wetland Hydrology Present? Yes _____ No _____

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

Remarks: to be monitored to determine if continues

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

Project/Site: Sethur City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#44 + DP45
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
= Total Cover			

Sand/Grass/Straw Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
= Total Cover			

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>corn</u>	<u>100</u>		<u>NF</u>
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
= Total Cover			

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
= Total Cover			

% Bare Ground in Herb Stratum _____	
Remarks:	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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 _____

— Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) _____

— Wetland Non-Vascular Plants¹ _____

— Problematic Hydrophytic Vegetation¹ (Explain) _____

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

Hydrophytic Vegetation Present? Yes _____ No _____

SOIL

Sampling Point: _____

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	Loc	Texture	Remarks
<u>10</u>	<u>10YR 2/2</u>						<u>fin</u>	
<u>16</u>	<u>10YR 5/3</u>						<u>volcanic ash</u>	

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

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

— Histosol (A1)	— Sandy Redox (S5)	— 2 cm Muck (A10)
— Histic Epipedon (A2)	— Stripped Matrix (S8)	— Red Parent Material (TF2)
— Bleck Histic (A3)	— Loamy Mucky Mineral (F1) (except MLRA 1)	— Other (Explain in Remarks)
— Hydrogen Sulfide (A4)	— Loamy Gleyed Matrix (F2)	
— Depleted Below Dark Surface (A11)	— Depleted Matrix (F3)	
— Thick Dark Surface (A12)	— Redox Dark Surface (F6)	
— Sandy Mucky Mineral (S1)	— Depleted Dark Surface (F7)	
— Sandy Gleyed Matrix (S4)	— Redox Depressions (F8)	

³Indicators 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: volcanic ash due to ash

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)	Secondary Indicators (2 or more required)
— Surface Water (A1)	— Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
— High Water Table (A2)	— Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
— Saturation (A3)	— Salt Crust (B11)
— Water Marks (B1)	— Aquatic Invertebrates (B13)
— Sediment Deposits (B2)	— Hydrogen Sulfide Odor (C1)
— Drift Deposits (B3)	— Oxidized Rhizospheres along Living Roots (C3)
— Algal Mat or Crust (B4)	— Presence of Reduced Iron (C4)
— Iron Deposits (B5)	— Recent Iron Reduction in Tilled Soils (C6)
— Surface Soil Cracks (B6)	— Stunted or Stressed Plants (D1) (LRR A)
— Inundation Visible on Aerial Imagery (B7)	— Other (Explain in Remarks)
— Sparsely Vegetated Concave Surface (B8)	— Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>8"</u>	

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

Remarks: to be monitored

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#46
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No _____	Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rain fall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				Total % Cover of: _____ Multiply by:
1. _____	_____	_____	_____	OBL species _____ x 1 = _____
2. _____	_____	_____	_____	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FACU species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: _____)	_____	_____	_____	Prevalence Index = B/A = _____
1. <u>C-N</u>	_____	_____	_____	Hydrophytic Vegetation Indicators:
2. _____	_____	_____	_____	Dominance Test is >50%
3. _____	_____	_____	_____	Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____	Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

SOIL

Sampling Point: _____

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	Loc	Texture	Remarks
12	10YR 3/1.5						cm F	
	10YR 2/2							

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ¹ :
___ Histic Epipedon (A2)	___ 2 cm Muck (A10)
___ Histic (A3)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	
___ Thick Dark Surface (A12)	
___ Sandy Mucky Mineral (B1)	
___ Sandy Gleyed Matrix (S4)	

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____
 Remarks: _____

Hydric Soil Present? Yes _____ No

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Saturation Visible on Aerial Imagery (C9)
___ Sediment Deposits (B2)	___ Geomorphic Position (D2)
___ Drift Deposits (B3)	___ Shallow Aquitard (D3)
___ Algal Mat or Crust (B4)	___ FAC-Neutral Test (D5)
___ Iron Deposits (B5)	___ Raised Ant Mounds (D6) (LRR A)
___ Surface Soil Cracks (B6)	___ Frost-Heave Hummocks (D7)
___ Inundation Visible on Aerial Imagery (B7)	
___ Sparsely Vegetated Concave Surface (B8)	

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

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

Project/Site: Suther City/County: Marysville Sampling Date: 3-21-17
 Applicant/Owner: _____ State: WA Sampling Point: DP#47
 Investigator(s): Ed Sewall 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>above normal rainfall - agricultural field w/ ditching + tile</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				Total % Cover of: _____ Multiply by:
Sawtooth/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____
1. _____	_____	_____	_____	FACW species _____ x 2 = _____
2. _____	_____	_____	_____	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species _____ x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>CON</u>	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is <3.0 ¹
3. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
13	10YR 2/1							
16	2.5Y 3/2				Fin	Fin	Fin	

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

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

___ Histosol (A1)	___ Sandy Redox (S5)	___ Indicators for Problematic Hydric Soils ¹ :
___ Histic Epipedon (A2)	___ Striped Matrix (S6)	___ 2 cm Muck (A10)
___ Black Histic (A3)	___ Loamy Mucky Mineral (F1) (except MLRA 1)	___ Red Parent Material (TF2)
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Other (Explain in Remarks)
___ Depleted Below Dark Surface (A11)	___ Depleted Matrix (F3)	
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F8)	
___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F6)	

¹Indicators 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)	Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
___ Saturation (A3)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Geomorphic Position (D2)
___ Algal Mat or Crust (B4)	___ Shallow Aquitard (D3)
___ Iron Deposits (B5)	___ FAC-Neutral Test (D5)
___ Surface Soil Cracks (B6)	___ Raised Ant Mounds (D6) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Frost-Heave Hummocks (D7)
___ Sparsely Vegetated Concave Surface (B8)	

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks: to be monitored