WETLAND DELINEATION, GROUNDWATER MONITORING, AND FISH AND WILDLIFE HABITAT ASSESSMENT REPORT

REX DEVELOPMENT

REVISED APRIL 2022

JANUARY 2021



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REX DEVELOPMENT

REVISED APRIL 6, 2022

JANUARY 2021

PROJECT LOCATION

15808 and 16204 51^{st} Avenue Northeast Marysville, Washington 98271

PREPARED FOR

WILLIAMS INVESTMENTS

ATTN: RYAN KILBY 2517 COLBY AVENUE EVERETT, WASHINGTON 98201

PREPARED BY

SOUNDVIEW CONSULTANTS LLC 2907 HARBORVIEW DRIVE, SUITE D GIG HARBOR, WASHINGTON 98335 (253) 514-8952



Executive Summary

Soundview Consultants LLC (SVC) is assisting Williams Investments (Applicant) with a Wetland Delineation, Groundwater Monitoring, and Fish and Wildlife Habitat Assessment Report on a 135-acre site located at 15808 and 16204 51st Avenue Northeast, in the City of Marysville, Washington. The subject property consists of two parcels situated in the Southeast ½, of Section 28, Township 31 North, Range 5 East, W.M (Snohomish County Tax Parcel Numbers 31052800400100 and 31052800400400).

SVC conducted a wetland delineation, groundwater monitoring, and fish and wildlife habitat field assessment in 2018 and 2020. An initial site investigation was conducted in early February 2018 and identified highly disturbed soil and vegetation conditions due to ongoing agricultural practices throughout most of the subject property. Following wetland delineation methodology for disturbed site conditions, forty-two groundwater monitoring observation wells were installed and monitored from early March 2018 to early June 2018. Observations of water table elevations were compared with precipitation data to determine where wetland hydrologic conditions were present on the subject property. These wetland hydrologic conditions were used to inform wetland delineations where soil and vegetation conditions were highly disturbed. Follow-up site investigations were completed in May and December 2020 to confirm the prior wetland delineations and assessments. investigations identified and delineated six potentially-regulated onsite wetlands (Wetlands A through F) in June 2018. Wetlands A, B, D, and E are Category IV depressional wetlands with standard 35foot buffers under Marysville Municipal Code (MMC) 22E.010.100.4. Wetland C is a Category III depressional wetland with a standard 75-foot buffer. Wetland F is a Category II depressional wetland with a standard 100-foot buffer. One stream (Hayho Creek) was identified onsite along the western boundary of the subject property. Hayho Creek is a Type F stream with a 150-foot buffer under MMC 22E.010.220.1.a. Two non-regulated, linear, excavated, agricultural ditches were observed onsite. Potential offsite wetlands were observed to the west of the northern portion of the subject property. No other potentially-regulated wetlands or fish and wildlife habitat were identified within 300 feet of the subject property. This report has been revised to include the Approved Jurisdictional Determination (AJD) for the identified critical areas.

The table below identifies the wetlands and stream observed during the site investigation and summarizes the potential regulatory status by local, state, and federal agencies.

Wetland/ Waterbody	Size/Length (onsite)	Category¹ or Type²	Regulated under MMC 22E.010	Regulated under RCW 90.48	Regulated under Section 404 of the CWA
Wetland A	87,149 SF	IV	Yes	Yes	No
Wetland B	18,005 SF	IV	Yes	Yes	No
Wetland C	56,433 SF	III	Yes	Yes	No
Wetland D	5,347 SF	IV	Yes	Yes	No
Wetland E	7,049 SF	IV	Yes	Yes	No
Wetland F	645,855 SF	II	Yes	Yes	No
Hayho Creek	~2,000 linear feet	F	Yes	Yes	No

Current Washington State Department of Ecology (WSDOE) wetland rating (Hruby, 2014) per MVMC 15.040.090.C.1.

^{2.} DNR Water Typing system per MMC 22E.010.060.1.

Site Map

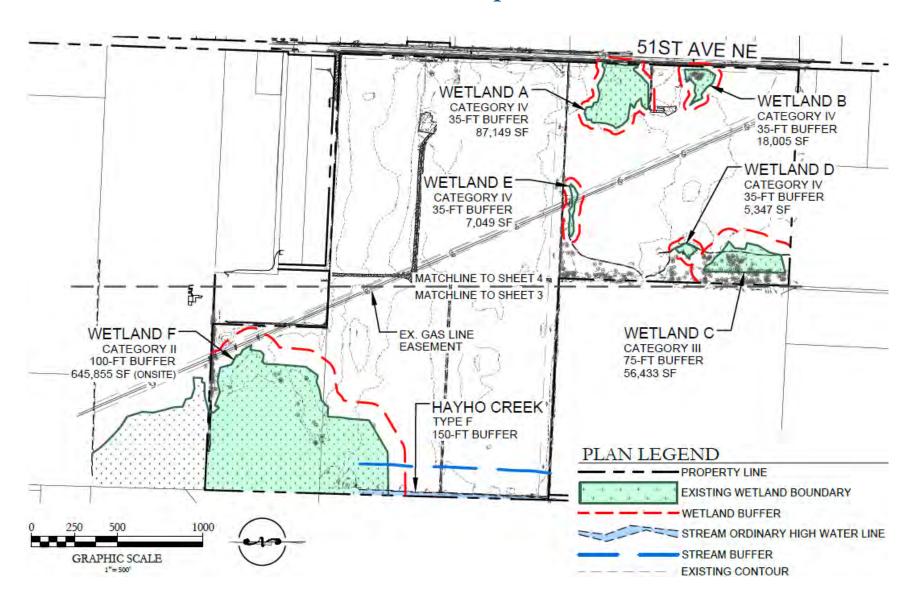


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Chapter 1. Introduction

Soundview Consultants LLC (SVC) is assisting Williams Investments (Applicant) with a Wetland Delineation, Groundwater Monitoring, and Fish and Wildlife Habitat Assessment Report on a 135-acre site located at 15808 and 16204 51st Avenue Northeast in the City of Marysville, Washington. The subject property consists of two parcels situated in the Southeast ¼, of Section 28, Township 31 North, Range 5 East, W.M (Snohomish County Tax Parcel Numbers 31052800400100 and 31052800400400).

The purpose of this Wetland Delineation, Groundwater Monitoring, and Fish and Wildlife Habitat Assessment Report is to identify the presence of potentially-regulated wetlands, waterbodies, fish and wildlife habitat, and/or priority species that may be found on or near the subject property.

This report provides conclusions and recommendations regarding:

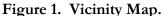
- Site description and areas of assessment;
- Background research, identification, and assessment of potentially-regulated wetlands and fish and wildlife habitat and/or species in the vicinity of the proposed project;
- Standard buffer recommendations, building setbacks, and development limitations;
- Existing site map detailing potentially-regulated wetlands and standard buffers;
- Proposed site plan with proposed project details; and
- Supplemental information necessary for local, state, and federal regulatory review.

Chapter 2. Proposed Project

2.1 Location

The subject property is located at 15808 and 16204 51st Avenue Northeast in the City of Marysville, Washington. The subject property consists of two parcels situated in the Southeast ¹/₄, of Section 28, Township 31 North, Range 5 East, W.M (Snohomish County Tax Parcel Numbers 31052800400100 and 31052800400400).

To access the subject property from I-5 North from Everett, take Exit 206 for WA-531 towards Lakewood/Smokey Point. Turn right on WA-531/172nd Street Northeast/Edgecomb Road and continue for 1.2 miles. Turn right on 51rst Avenue Northeast/Shoultes Road and proceed for 0.6 mile. The subject property will be on the right.





2.2 Proposed Project

The purpose of this report is to assess the feasibility of potential future development on the subject property.

Chapter 3. Methods

SVC conducted multiple site investigations and weekly groundwater monitoring on the subject property. The initial site investigation was conducted on February 1, 2018; wetland delineation was conducted on June 19, 20, and 21, 2018; and a follow-up site assessment was conducted on August 10, 2018. Groundwater monitoring was conducted from March 1, 2018 to June 5, 2018. An additional follow up site investigation was conducted on May 19 and 21, 2020 and December 16, 2020. Prior to the initial site investigation, staff conducted background research using Snohomish County Geographic Information System (GIS) data, Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) and SalmonScape mapping tools, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), Washington Department of Natural Resources (DNR) water typing system, and Natural Resource Conservation Service (NRCS) soil survey. All determinations were made using observable vegetation, hydrology, and soils in conjunction with data from the U.S. Geological Survey (USGS) topographic maps, USFWS, local precipitation data, and various orthophotographic resources. Appendix A contains further details for the methods and tools used to prepare this report.

The initial site investigation consisted of a walk-through survey of the subject property and accessible areas within 150 feet of this area for potentially-regulated wetlands, waterbodies, fish and wildlife habitat, and/or priority habitat species as specified in the Marysville Municipal Code (MMC) Chapter 22E.010 (Critical Areas Management). The fish and wildlife habitat assessment was conducted during the initial site visit by a qualified fish and wildlife biologist. The experienced biologist made visual observations using stationary and walking survey methods for both aquatic and upland habitats, noting any special habitat features or signs of fish and wildlife activity.

On highly disturbed or problematic sites, direct hydrologic monitoring may be needed to determine whether wetland hydrology is present. The USACE provides a technical standard for monitoring hydrology on such sites. The regional hydrologic standard requires 14 or more consecutive days of flooding or ponding, or a water table 12 inches or less below the soil surface during the growing season at a minimum frequency of 5 years out of 10 (50 percent or higher probability) (National Research Council, 1995).

To evaluate wetland hydrology according to this criterion, trained SVC staff set up forty-two monitoring locations (MP-1 to MP-42) across the subject property. One monitoring well was installed at each monitoring location with the exceptions of MP-35, MP-36 and MP 38. These three locations were ponded during the initial well installation and remained ponded throughout much of the monitoring period. Ponded water depth in these locations was measured using a measuring tape. When the water table dropped below the ground surface in these locations, holes were dug to measure the water table elevation. Each monitoring well was constructed of a 5-foot length of 2-inch diameter polyvinyl chloride (PVC) pipe with narrow slits extending 24 inches from one end. Each monitoring well was capped at each end with the lower cap fixed and perforated and an upper inspection cap with tamper-resistant locking mechanism. Each monitoring well was installed to a depth of approximately 36 inches, surrounded by sand to 3 inches above the top slits. Each monitoring well was then packed with native soil and topped with a Bentonite seal. The monitoring wells at locations MP-1 through MP-38 were installed on March 1 and 2, 2018. The monitoring wells at locations MP-39 through MP-42 were installed on March 20, 2018 due to ongoing agricultural activities (see Appendix C for a site

map with monitoring well locations and Appendix H for photographs of representative monitoring wells installed in upland and wetland locations).

Water level measurements were collected from each monitoring well on a weekly basis (every 6 to 8 days) from March 6 to June 5, 2018 by qualified SVC staff. The purpose of this monitoring was to determine the depth of near-surface water levels during the growing season in relation to precipitation events.

Data from the monitoring wells were compared with precipitation data in order to determine the likelihood of wetland hydrology. Precipitation data used in this assessment was collected by the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service at the Seattle-Tacoma International Airport in Seatac, Washington. Closer weather stations were not chosen due to incomplete observation data at those stations, and a dependable precipitation data set is required throughout the monitoring period. Wetland hydrology was considered met during the site investigation when water levels were observed to be within 12 inches of the surface for at least two consecutive weeks during the monitoring period.

Wetland boundaries were determined using the approach described in the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory, 1987) and modified according to the guidelines established in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE, 2010). Qualified wetland scientists marked boundaries of onsite wetlands with orange surveyor's flagging labeled alphanumerically and tied to 3-foot lath or vegetation along the wetland boundary. Pink surveyor's flagging was labeled alphanumerically and tied to 3-foot lath or vegetation at formal sampling locations to mark the points where detailed data was collected. DP-1 through DP-42 were collected at the monitoring well locations MP-1 through MP-42 at the time of monitoring well installation. Data was not collected at MP-35, MP-36 and MP 38 as these locations were ponded at the time of monitoring well installation and remained so for much of the field assessment period. DP-43 through DP-52 were collected at the time of wetland delineation to verify wetland and upland conditions. Additional tests pits were excavated at regular intervals inside and outside of the wetland boundaries to further confirm each delineation.

SVC classified all wetlands using both the hydrogeomorphic (Brinson, 1993) and Cowardin (Cowardin, 1979) classification systems. Following classification and assessment, WSDOE-trained scientists rated and categorized all wetlands using the *Washington State Wetlands Rating System for Western Washington* (Hruby, 2014) and the definitions established in MMC 22E.010.060.1.

Ordinary High Water Mark (OHW) determinations were made using WSDOE's method as detailed in *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Anderson et al., 2016) and the definitions established in the Revised Code of Washington (RCW) 90.58.030(2)(b) and Washington Administrative Code (WAC) 173-22-030(11). To mark the centerline or banks of potentially-regulated streams, blue surveyor's flagging was alpha-numerically labeled and tied to vegetation. Streams and surface water features were classified using the DNR water typing system as outlined in WAC 222.16 and the guidelines established in MMC 22E.010.210.1.

Chapter 4. Background

4.1 Landscape Setting

The subject property is located in the City of Marysville in an agricultural setting (Figure 2). The subject property is actively used for agriculture. 51st Avenue Northeast borders the subject property to the east. Adjacent parcels to the north and south of the subject property consist of land for single-family residential and agricultural uses. Adjacent parcels to the west of the subject property consist of agricultural land, undeveloped land, and single-family residential land.

The study area is within the Snohomish watershed (Water Resources Inventory Area 7). Topography on the site is flat (Appendix B1).

Figure 2. Aerial Image of the Subject Property.

Subject Property Location

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4.2 Vegetation

The subject property has been used for agricultural crop and sod production. The northeast fields on the northern parcel of the subject property were in sod production during the site investigations. No other crops or sod were being grown during the site investigations, groundwater monitoring, or wetland delineation. Corn stalks from a 2017 harvest are present on the southern parcel. Herbaceous

vegetation emerged on this southern parcel during spring and summer 2018; the vegetation is dominated by common velvetgrass (*Holcus lanatus*) and colonial bentgrass (*Agrostis capillaris*). The northern parcel has been rotated through crop and sod production. The southern fields of the northern parcel are dominated by alsike clover (*Trifolium hybridium*), common velvetgrass, bird's-foot trefoil (*Lotus corniculatus*), American vetch (*Vicia americana*), and Canada thistle (*Cirsium arvense*). The northwest fields of the northern parcel are dominated by Scouler's willow saplings (*Salix scouleriana*), colonial bentgrass, common velvetgrass, orchard grass (*Dactylis glomerata*) and oxeye daisy (*Leucanthemum vulgare*). Forested patches are present along the western boundaries of the southern and northern parcels. These patches are dominated by red alder (*Alnus rubra*), black cottonwood (*Populus balsamifera*), quaking aspen (*Populus tremuloides*), twinberry (*Lonicera involucrata*), salmonberry (*Rubus spectabilis*), lady fern (*Athyrium cyclosorum*), and Himalayan blackberry (*Rubus armeniacus*).

4.3 Soils

The NRCS soil survey identifies three soil series on the subject property: Custer fine sandy loam, Mukilteo muck, and Norma loam. An NRCS soil survey map is provided in Appendix B3.

Custer fine sandy loam (13)

According to the NRCS survey, Custer fine sandy loam is a very deep, poorly drained soil formed in glacial outwash. In a typical profile, the surface layer is about 9 inches thick and consists of a dark grayish brown fine sandy loam. The upper subsoil is about 7 inches thick and consists of a loamy fine sand. The lower subsoil is about 19 inches thick and consists of gray and olive sand with iron-cemented concretions that form a discontinuous hardpan. This soil is listed as hydric by NRCS.

Mukilteo muck (34)

According to the NRCS survey, Mukilteo muck is a very deep, poorly drained soil that is formed predominantly by sedges. Permeability is moderate and water capacity is high. In a typical profile, the surface layer is about 4 inches thick and consists of a dark reddish-brown muck. The next layer is dark reddish brown to black organic material about 31 inches thick, followed by a black organic layer about 20 inches thick. The bottom layer to a depth of 60 inches or greater consists of an olive gray fine sandy loam. Large amounts of woody material are common. This soil is considered hydric by NRCS.

Norma loam (39)

According to the NRCS survey, Norma loam is a deep, poorly drained soil formed in alluvium. In a typical profile, the surface layer is very dark gray loam about 10 inches thick. The subsoil is dark grayish brown sandy loam about 18 inches thick. The substratum is a dark gray sandy loam to a depth of 60 inches or more. This soil is listed as hydric by NRCS.

4.4 Stream and Wetland Inventories

The USFWS NWI map (Appendix B2) identifies potential wetland areas in the northwest corner of the subject property and along the western boundary of the subject property. Additional offsite potential wetland areas are associated with potential streams or ditches to the south and east of the subject property. The Snohomish County wetlands inventory map (Appendix B4) also identifies potential wetland area on the northwest corner and western portion of the subject property; this potential wetland area extends offsite to the west and northwest. The DNR stream typing map (Appendix B8) identifies Type N waterbodies on the western portion of the property, including along

the western property boundary. An offsite Type N waterbody is located across 51st Avenue Northeast to the east, and an offsite Type F waterbody is located to the south of the subject property. The Snohomish County stream inventory map (Appendix B5) also identifies these features, except for the waterbody located across 51st Avenue Northeast to the east.

4.5 Priority Habitats and Species

The WDFW PHS map (Appendix B4) identifies the potential wetlands extending northwest and west from the subject property. This WDFW PHS map identifies occurrence and migration of Dolly Varden/bull trout (Salvelinus malma), coastal cutthroat (Oncorhynchus clarki), chum salmon (Oncorhynchus keta), and coho (Oncorhynchus kisutch) in the stream along the western boundary of the subject property. The WDFW Salmonscape map (Appendix B7) identifies the presence of Dolly Varden/bull trout and coho as presumed and the presence of chinook salmon (Oncorhynchus tshawytscha), pink salmon (Oncorhynchus gorbuscha), and steelhead trout (Oncorhynchus mykiss) as modeled in the stream along the western boundary of the subject property. Additionally, the WDFW Salmonscape map identifies modeled presence of pink salmon, chinook salmon, coho salmon (Oncorhynchus keta), chum salmon (Oncorhynchus keta), and steelhead trout in the stream located across 51st Avenue Northeast to the east.

4.6 Precipitation

Precipitation data was obtained from the National Oceanic and Atmospheric Administration (NOAA) weather station at Seattle-Tacoma International Airport in order to obtain precipitation values during and preceding the field investigations for the initial site investigation, monitoring well installation, wetland delineations, and follow-up site assessment. A summary of this data collected is provided in Table 1. Precipitation data for the monitoring well observations visits is provided in Appendix I.

Table 1. Precipitation Summary¹.

Date	Day Of	Day Before	1 Week Prior	2 Weeks Prior	Last 30 days (Observed/Normal)	Year-to-Date ² (Observed/Normal)	Percent of Normal (prior 30 days/year)
12/16/20	0.49	0.42	1.42	2.18	4.62/6.25	10.34/12.92	74/80.03
5/21/20	0.36	0.03	1.17	1.23	3.28/2.08	33.13/32.21	158/103
5/19/20	0.00	0.00	0.83	0.95	2.89/2.13	32.74/32.09	136/102
08/10/18	0.00	0.00	0.01	0.03	0.03/0.61	38.10/35.31	5/108
06/21/18	0.00	0.00	0.00	0.42	0.43/1.85	37.82/34.06	23/111
06/20/18	0.00	0.00	0.02	0.42	0.43/1.86	37.82/34.01	23/111
06/19/18	0.00	0.00	0.02	0.42	0.43/1.87	37.82/33.91	23/112
03/02/18	0.18	0.03	0.66	1.19	2.37/3.93	29.35/24.60	60/119
03/01/18	0.03	U^3	0.48	1.02	2.19/3.94	29.17/24.60	56/119
02/01/18	0.57	T^3	0.83	0.57	8.77/5.47	27.55/21.10	160/131

Notes:

Precipitation volume in inches. Data obtained from the NOAA (http://w2.weather.gov/climate/xmacis.php?wfo=sew) for SeaTac International Airport.

^{2.} Year-to-date precipitation is the total for the water year from October 1st to the onsite date(s).

^{3.} U = Unknown amount. T = Trace amount.

During the site reconnaissance visit on February 1, 2018, precipitation levels were significantly above statistical normal (160.32 percent of normal) for the prior 30 days and significantly above statistical normal (130.56 percent of normal) for the water year. This precipitation data suggests that wetter than normal conditions were encountered at the time of the site reconnaissance.

During the monitoring well installation visits on March 1 and 2, 2018, precipitation levels were significantly below statistical normal (55.58 to 60.30 percent of normal) for the prior 30 days and significantly above statistical normal (118.57 to 119.30 percent of normal) for the water year. However, over an inch of rain was recorded within the two weeks prior to the monitoring well installation.

During the wetland delineation visits on June 19, 20, and 21, 2018, precipitation levels were significantly below statistical normal (22.99 to 23.24 percent of normal) for the prior 30 days and above statistical normal (111.53 to 111.04 percent of normal) for the water year.

During the site assessment on August 10, 2018, precipitation levels were significantly below statistical normal (4.92 percent of normal) for the prior 30 days and slightly above statistical normal (107.90 percent of normal) for the water year.

During the follow-up site investigations in May 2020, precipitation levels were significantly above the statistical normal (158 and 136 percent of normal) and near the statistical normal for the water year (103 and 102 percent of normal). During the follow-up site visit on December 16, 2020, precipitation levels were below the statistical normal (approximately 74 percent of normal) for the prior 30 days and within the statistical normal range (approximately 80 percent of normal) for the water year. 2.18 inches of precipitation occurred during the two weeks prior to the site visit, approximately half of the precipitation that occurred during the prior 30 days.

Chapter 5. Results

The initial site investigation in February 2018 revealed that the highly disturbed conditions were present on the subject property due to the ongoing agricultural use of the site. Wet conditions were observed in several locations across the subject property. Due to the highly disturbed conditions, soils and vegetation were not considered reliable indicators of wetland conditions across the entire subject property. Groundwater monitoring from early March to early June 2018 observed water table elevation responses to precipitation during the growing season. Nine out of 42 groundwater monitoring locations met the wetland hydrology criterion; this result informed boundary determinations for Wetlands A through C and Wetland F. The site investigation in June 2018 identified and delineated six wetlands on the subject property (Wetlands A through F). Additionally, one Type F stream (Hayho Creek) was identified and delineated along the western boundary of the northern parcel (Snohomish County Tax Parcel # 31052800400100) and two artificially excavated agricultural ditches were observed on the subject property. No other potentially-regulated wetlands, fish and wildlife habitat, streams, or priority species were identified adjacent to the subject property.

5.1 Groundwater Monitoring

As the site has been historically disturbed and altered, wetland determinations based on vegetation and soils (two of the three required wetland criteria) is problematic across much of the subject property. As such, wetland determinations across much of the subject property focused on the presence or absence of wetland hydrology using monitoring wells to evaluate groundwater. Near-surface water levels were measured every six to eight days at each monitoring well over a fourteen-week period starting on March 6 and ending on June 5, 2018 and compared with local precipitation data during the same period. The wettest months during the monitoring period were March and April (Table 2).

Table 2.	Monthly	Precipitation	Summary.
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Month	Total Monthly Precipitation ¹	Normal Precipitation	Percent Normal
March	2.44	3.72	65.59
April	5.69	2.71	209.96
May	0.12	1.94	6.18
June ²	0.01	0.32	3.12

Notes:

Precipitation volume in inches. Data obtained from the NOAA (http://w2.weather.gov/climate/xmacis.php?wfo=sew) for SeaTac International Airport.

^{2.} June precipitation is only totaled up to the end of the monitoring period (June 5).

Precipitation levels during the monitoring period are shown below the monitoring well data (Figure 3) to demonstrate the rise and drop of near-surface water levels. Of note is that a measurement of zero on the Y-axis (Water Depth Below Surface) correlates to the ground surface, and anything above zero indicates the depth of ponded, or standing, water above ground.

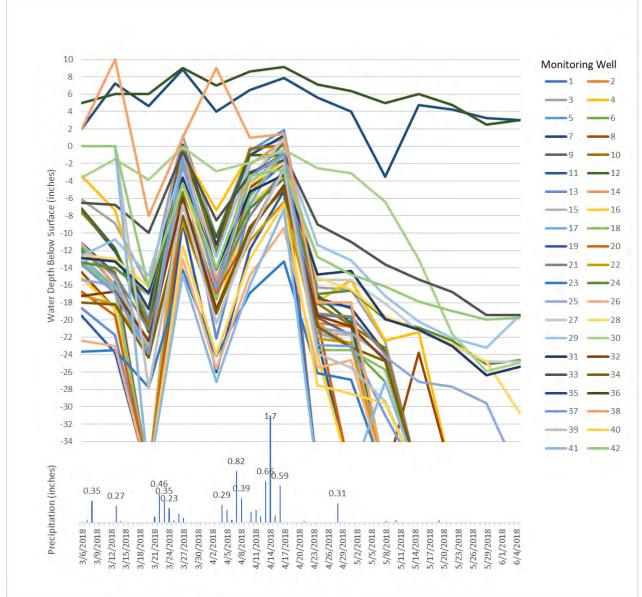


Figure 3. Monitoring Well and Precipitation Summary.

The water levels throughout the monitoring period were highly variable and showed a strong relation to precipitation events: rapid changes in water elevation after and between each precipitation event indicated soils that drain water rapidly following a period of precipitation. The highest water table elevations during the monitoring period occurred during March and April; many monitoring wells showed water table elevations that rose to be at or above 12 inches following precipitation events in these months. However, of these monitoring well locations with high water tables following precipitation events, several had water table elevations that dropped below 12 inches during periods

with low or no precipitation. The following monitoring locations were observed to have water table elevations at or above 12 inches for at least a continuous 14-day period during the monitoring period: MP-3, MP-4, MP-7, MP-12, MP-30, MP-33, MP-35, MP-36, and MP-38.

5.2 Wetlands

Highly disturbed conditions for soils and vegetation were identified across much of the subject property due to agricultural use of the site. Following current wetland delineation methodology for highly disturbed or problematic sites, groundwater monitoring data was used to determine wetland hydrology and inform the wetland delineations in locations where disturbed soils and vegetation were present. A map depicting the location and sizes of each wetland is presented in Appendix C. Data forms are provided in Appendix E, wetland rating forms are provided in Appendix F, and wetland rating maps are provided in Appendix G. Table 3 below summarizes the wetlands identified during the site investigation.

Table 3. Wetland Summary

	Predor	Predominant Wetland Classification / Rating				Standard
Wetland	Cowardin ¹	HGM ²	WSDOE ³	City of Marysville ⁴	Size Onsite (SF)	Buffer Width (feet) ⁵
A	PEMAB	Depressional	IV	IV	87,149 SF	35
В	PEMAB	Depressional	IV	IV	18,005 SF	35
С	PFO/EMBC	Depressional	III	III	56,433 SF	75
D	PEMB	Depressional	IV	IV	5,347 SF	35
E	PEMAB	Depressional	IV	IV	7,049 SF	35
F	PFO/SS/EM BC	Depressional	II	II	645,855 SF	100

Notes:

Wetland A

Wetland A is approximately 87,149 square feet (2.0 acres) in size and is located along the eastern boundary of the subject property's southern parcel. Hydrology for Wetland A is provided by seasonally-high water table, direct precipitation, and surface runoff from adjacent uplands. Wetland vegetation is dominated by common velvetgrass, toad rush (*Juncus bufonius*), spotted lady's thumb (*Persicaria maculosa*), fringed willowherb (*Epilobium ciliatum*), and marsh cudweed (*Gnaphalium uliginosum*). Wetland A is a Palustrine Emergent, Temporarily Flooded, Seasonally Saturated (PEMAB) wetland. Per MMC 22E.010.060.1, Wetland A is considered a Category IV depressional wetland. Table 4 provides a summary of Wetland A.

^{1.} Cowardin et al. (1979), Federal Geographic Data Committee (2013), or NWI Class based on vegetation: PFO = Palustrine Forested, PSS = Palustrine Scrub Shrub, PEM = Palustrine Emergent; Modifiers for Water Regime: A = Temporarily Flooded, B = Seasonally Saturated, C = Seasonally Flooded.

^{2.} Brinson, M. M. (1993).

^{3.} Current WSDOE rating (Hruby, 2014).

MMC 22E.010.060.1 wetland classification. Mount Vernon rating according to Washington State Wetland Rating System for Western Washington (Hruby, 2014).

^{5.} MMC 22E.010.100.4 standard buffer widths.

Wetland B

Wetland B is approximately 18,005 square feet (0.41 acre) in size and is located along the eastern boundary of the subject property's southern parcel. Hydrology for Wetland B is provided by a seasonally-high water table, direct precipitation, and surface runoff from adjacent uplands. Wetland vegetation is dominated by perennial ryegrass (*Lolium perenne*), marsh cudweed, and slough sedge (*Carex obnupta*). Wetland B is a Palustrine Emergent, Temporarily Flooded, Seasonally Saturated (PEMAB) wetland. Per MMC 22E.010.060.1, Wetland B is a Category IV depressional wetland. Table 5 summarizes Wetland B.

Wetland C

Wetland C is approximately 56,433 square feet (1.3 acres) in size and is located southwest corner of the subject property's southern parcel. Hydrology for Wetland C is provided by a seasonally-high water table, direct precipitation, and surface runoff from adjacent uplands. Wetland vegetation is dominated by paper birch (*Betula papyrifera*), soft rush (*Juncus effusus*), common velvetgrass, and creeping buttercup (*Ranunculus repens*). Wetland C is a Palustrine Forested/Emergent, Seasonally Saturated, Seasonally Flooded wetland (PFO/EMBC). Per MMC 22E.010.060.1, Wetland C is a Category III depressional wetland. Table 6 summarizes Wetland C.

Wetland D

Wetland D is approximately 5,347 square feet (0.12 acre) in size and is located on western portion of the subject property's southern parcel. Hydrology for Wetland D is provided by a seasonally-high water table, direct precipitation, and surface runoff from adjacent uplands. Wetland vegetation is dominated by paper birch, soft rush (*Juncus effusus*), common velvetgrass, and creeping buttercup. Wetland D is a Palustrine Emergent, Seasonally Saturated wetland (PEMB). Per MMC 22E.010.060.1, Wetland D is a Category IV depressional wetland. Table 7 summarizes Wetland D.

Wetland E

Wetland E is approximately 7,049 square feet (0.16 acre) in size and is located on the central portion of the subject property. Hydrology for Wetland E is provided by a seasonally-high water table, direct precipitation, and surface runoff from adjacent uplands. Wetland vegetation is dominated by common velvetgrass, toad rush, and fringed willowherb. Wetland E is a Palustrine Emergent, Temporarily Flooded, Seasonally Saturated wetland (PEMAB). Per MMC 22E.010.060.1, Wetland E is a Category IV depressional wetland. Table 8 summarizes Wetland E.

Wetland F

Wetland F is approximately 645,855 square feet (14.83 acres) in size and is located on the northwest portion of the subject property's northern parcel; the wetland extends offsite to the northwest and west. Hydrology for Wetland F is provided by a seasonally-high water table, direct precipitation, surface runoff from adjacent uplands, and seasonal flooding from Hayho Creek. Wetland vegetation is dominated by black cottonwood (*Populus balsamifera*), Pacific willow (*Salix lasiandra*), Schouler's willow (*Salix scouleriana*), Hooker's willow (*Salix hookeriana*), Scoulers fumewort (*Cordalis scouleri*), hardhack (*Spiraea douglasii*), common velvetgrass, soft rush, Idaho fescue (*Festuca idahoensis*), and bird'sfoot trefoil (*Lotus corniculatus*). Wetland F is a Palustrine Forested/Scrub-Shrub/Emergent, Seasonally Saturated, Seasonally Flooded wetland (PFO/SS/EMBC). Per MMC 22E.010.060.1, Wetland F is a Category II depressional wetland. Table 9 summarizes Wetland F.

Table 4. Wetland A Summary.

	WETLAND A – INFORMATION SUMMARY				
Location:	Wetland A is located along the easter parcel.	ern boundary of the subjec	t property's southern		
		Local Jurisdiction	City of Marysville		
AND AND ASSESSMENT		WRIA	7 – Snohomish		
		WSDOE Rating (Hruby, 2014)	IV		
	The second secon	Marysville Rating	IV		
		Marysville Buffer Width	35 feet		
	AND THE RESIDENCE OF THE PARTY	Wetland Size	87,149 SF		
		Cowardin Classification	PEMAB		
	"本"。 " "	HGM Classification	Depressional		
了意識的	拉性操作。中国	Wetland Data Sheet(s)	MP/DP-3, DP-3-2, MP/DP-4		
為文學。在集		Upland Data Sheet (s)	MP/DP-5, DP-43		
	And the same	Boundary Flag color	Orange		
Dominant Vegetation	Wetland vegetation is dominated by common velvetgrass (<i>Holcus lanatus</i>), toad rush (<i>Juncus bufonius</i>), spotted lady's thumb (<i>Persicaria maculosa</i>), fringed willowherb (<i>Epilobium ciliatum</i>), and marsh cudweed (<i>Gnaphalium uliginosum</i>).				
Soils	Hydric soil indicator F6 (Redox Da	rk Surface) was observed a	t DP-3		
Hydrology	Hydrology is likely provided by seas surface runoff from adjacent upland		rect precipitation, and		
Rationale for Delineation	Wetland boundaries were determin soils. Wetland hydrology was deter hydrology was observed at monitor hydrology was observed at monitor	rmined by groundwater mooring locations MP-3 and	onitoring study. Wetland		
Rationale for Local Rating	Local rating is based upon WSDOF	E's current rating system an	d MMC 22E.010.060.1		
	Wetland Function	ons Summary			
Water Quality	Wetland A can only provide minimal pollutant filtration as persistent, ungrazed plants cover less than 1/10 of the wetland and any seasonal ponded area is less than ½ of the wetland area. The area immediately surrounding Wetland A does generate pollutants, providing some potential for water quality improvement in the wetland. The value of any water quality improvement functions within Wetland A is increased as the wetland is located in a sub-basin where water quality is an issue. Wetland A scores 6 out of 9 points for water quality functions.				
Hydrologic	Wetland A can provide minimal water storage due to the lack of a constricted surface outlet. Wetland A has moderate potential to provide hydrologic functions the immediate area surrounding does not generate excessive runoff even though at least 25 percent of the contributing basin is covered in intensive human land uses. The ability of the wetland to provide water storage is valuable as the unit is in a sub-basin with flooding problems. Wetland A scores 5 out of 9 points for hydrologic functions.				

	Wetland A likely provides forage and cover for small terrestrial mammals and birds. Wetland A is dominated by native species and non-native, invasive species cover less than 25 percent of the wetland. However, the diversity of niches within the wetland is
Habitat	limited by the presence of only one Cowardin class. The value of Wetland A habitat is minimal as it is not located within 100 m of any WDFW Priority Habitats and does not provide habitat for priority species. Wetland A scores 4 out of 9 points for habitat functions.
Buffer Condition	The Wetland A onsite buffer consists of fallow agricultural land. The buffer is interrupted by 51st Avenue Northwest to the east.

Table 5. Wetland B Summary.

	WETLAND B – INFORMATION SUMMARY				
Location: Wetland B is located along the eastern boundary of the subject property's southern					
Location:	parcel.	erii boundary of the subject pr	operty's southern		
		Local Jurisdiction	City of Marysville		
		WRIA	7 – Snohomish		
		WSDOE Rating (Hruby, 2014)	IV		
		Marysville Rating	IV		
	The second secon	Marysville Buffer Width	35 feet		
	整理 * * * * * * * * * * * * * * * * * * *	Wetland Size	18,005 SF		
		Cowardin Classification	PEMAB		
三克 郑一		HGM Classification	Depressional		
TO WAR		Wetland Data Sheet(s)	MP/DP-7, DP-45		
公文学 生物	As a second second	Upland Data Sheet (s)	MP/DP -6, DP-44		
		Boundary Flag color	Orange		
Dominant Vegetation	Wetland vegetation is dominated by a slough sedge (<i>Carex obnupta</i>).	perennial ryegrass (Lolium perenn	e), marsh cudweed, and		
Soils	Hydric soil indicator F3 (Depleted Matt F6 (Redox Dark Surface) was observed		and hydric soil indicator		
Hydrology	Hydrology is likely provided by a season runoff from adjacent uplands.	nally-high water table, direct prec	cipitation, and surface		
Rationale for Delineation	Wetland boundaries were determined Wetland hydrology was determined by observed at monitoring locations MP-7 location MP-6.	groundwater monitoring study.	Wetland hydrology was		
Rationale for Local Rating	Local rating is based upon WSDOE's current rating system and MMC 22E.010.060.1				
	Wetland Functio	ns Summary			
Water Quality	Wetland B can provide some pollutant filtration as persistent, ungrazed vegetation covers less than half the area. The land immediately surrounding Wetland B is in agricultural use and generates pollutants for wetland filtration. This ability to provide pollutant filtration is valuable as the unit is in a sub-basin where water quality is an issue. Wetland B scores 6 out of 9 points for water quality functions.				
Hydrologic	Wetland B can provide minimal water storage due to the lack of a constricted surface outlet. Wetland B has moderate potential to provide hydrologic functions the immediate area surrounding does not generate excessive runoff even though at least 25 percent of the contributing basin is covered in intensive human land uses. The ability of the wetland to provide water storage is valuable as the unit is in a sub-basin with flooding problems. Wetland B scores 5 out of 9 points for hydrologic functions.				
Habitat	Wetland B likely provides forage and cover for small terrestrial mammals and birds. Wetland B is dominated by native species and non-native, invasive species cover less than 25 percent of the wetland. However, the diversity of niches within the wetland is limited by the presence of only one Cowardin class. The value of Wetland B habitat is minimal as it is not located within 100 m of any WDFW Priority Habitats and does not provide habitat for priority species. Wetland B scores 4 out of 9 points for habitat functions.				
Buffer Condition	The Wetland B onsite buffer consists 51st Avenue Northwest to the east.	of fallow agricultural land. The	buffer is interrupted by		

Table 6. Wetland C Summary.

WETLAND C - INFORMATION SUMMARY					
Location:	Wetland C is located southwest corner of the subject property's southern parcel.				
		Local Jurisdiction	City of Marysville		
		WRIA	7 – Snohomish		
		WSDOE Rating (Hruby, 2014)	III		
		Marysville Rating	III		
		Marysville Buffer Width	75 feet		
		Wetland Size	56,433 SF		
		Cowardin Classification	PFO/EMBC		
		HGM Classification	Depressional		
		Wetland Data Sheet(s)	DP-47 and MP/DP- 38		
		Upland Data Sheet (s)	DP-46 and DP-48		
		Boundary Flag color	Orange		
Dominant Vegetation	Wetland vegetation is dominated by aspen (<i>Populus tremuloides</i>), Pacific cra involucrata), lady fern (<i>Athyrium cycle</i> Himalyan blackberry (<i>Rubus armenica</i>)	ubapple (<i>Malus fusca</i>), twinber osorum), creeping buttercup	ry honeysuckle (Lonicera		
Soils	Hydric soil indicators A11 (Deplete Surface) were observed at DP-47.	ed Below Dark Surface) and l	F6 (Redox Dark		
Hydrology	Hydrology is likely provided by a se surface runoff from adjacent uplan		rect precipitation, and		
Rationale for Delineation	Wetland boundaries were determined soils. Wetland hydrology was determined by was observed at monitor observed at monitoring location M	rmined by groundwater moring locations MP-38, and non	nitoring study. Wetland		
Rationale for	Local rating is based upon WSDOI	E's current rating system and	MMC 22E.010.060.1		
Local Rating	Wotland Errort	ana Cummawa			
	Wetland Coop provide pollutant f	•	of monaistant 1		
Water Quality	Wetland C can provide pollutant filtration due to the presence of persistent, ungrazed plants that cover greater than 50 percent of the wetland and seasonal ponding that covers more than 25 percent of the wetland. This ability to provide pollutant filtration is valuable as the unit is in a sub-basin where water quality is an issue. However, Wetland C has a low potential to provide water quality functions as the majority of the land immediately surrounding the wetland is tree covered and does not generate pollutants. Wetland C scores 6 out of 9 points for water quality functions.				
Hydrologic	Wetland C can provide minimal water storage due to the lack of a constricted surface outlet. Wetland C has moderate potential to provide hydrologic functions the immediate area surrounding does not generate excessive runoff even though at least 25 percent of the contributing basin is covered in intensive human land uses. The ability of the wetland				

	to provide water storage is valuable as the unit is in a sub-basin with flooding problems.		
	Wetland C scores 5 out of 9 points for hydrologic functions.		
	Wetland C likely provides forage and cover for small terrestrial mammals and birds. The		
Habitat	wetland contains two Cowardin classes with low interspersion and special habitat features.		
	Wetland C scores 4 out of 9 points for habitat functions.		
Buffer	The buffer surrounding Wetland C consists of fallow agricultural land to the east and		
Condition	forest dominated by black cottonwood and red alder.		

Table 7. Wetland D Summary.

	WETLAND D – INFORMATION SUMMARY				
Location:	Wetland D is located on western pe		's southern parcel.		
		Local Jurisdiction	City of Marysville		
		WRIA	7 – Snohomish		
	1.6 多名建筑	WSDOE Rating (Hruby, 2014)	IV		
		Marysville Rating	IV		
2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2		Marysville Buffer Width	35 feet		
建设设计划	MATERIAL SECTION OF THE SECTION OF T	Wetland Size	5,347 SF		
5月 2 万字 7 0		Cowardin Classification	PEMB		
W W # / W		HGM Classification	Slope		
		Wetland Data Sheet(s)	DP-49		
图中数4.4 年,由	SO WAY WELL SAFE	Upland Data Sheet (s)	DP-50		
		Boundary Flag color	Orange		
Dominant Vegetation	Wetland vegetation is dominated by pap- velvetgrass (<i>Hokus lanatus</i>), and creeping		sh (Juncus effusus), common		
Soils	Hydric soil indicators A11 (Depleted Fobserved at DP-49.	Below Dark Surface) and F3 (De	pleted Matrix) were		
Hydrology	Hydrology is likely provided by direct groundwater table.	precipitation, surface sheet flow	, and a seasonally high		
Rationale for Delineation	Wetland boundaries were determined by and hydric soils.	y a topographic break and transi	tion to wetland hydrology		
Rationale for Local Rating	Local rating is based upon WSDOE's	current rating system and MMC	22E.010.060.1		
	Wetland Functio	•			
Water Quality	Wetland D can provide some pollutant filtration as persistent, ungrazed plants cover greater than 50 percent of the wetland. This ability to provide pollutant filtration is valuable as the unit is in a sub-basin where water quality is an issue. However, Wetland D has a low potential to provide water quality functions as the majority of the land immediately surrounding the wetland is tree covered and does not generate pollutants. Wetland D scores 6 out of 9 points for water quality functions.				
Hydrologic	Wetland D can provide minimal water storage due to the lack of a constricted surface outlet. Wetland D has moderate potential to provide hydrologic functions the immediate area surrounding does not generate excessive runoff even though at least 25 percent of the contributing basin is covered in intensive human land uses. The ability of the wetland to provide water storage is valuable as the unit is in a sub-basin with flooding problems. Wetland D scores 5 out of 9 points for hydrologic functions.				
Habitat	Wetland D likely provides forage and cover for small terrestrial mammals and birds. However, the diversity of niches within the wetland is limited by the presence of only one Cowardin class. The value of Wetland D habitat is increased due to WDFW priority snags/logs located within 100 m of the wetland. Wetland D scores 4 out of 9 points for habitat functions.				
Buffer Condition	The buffer surrounding Wetland D codominated by black cottonwood, red alo				

Table 8. Wetland E Summary.

WETLAND E – INFORMATION SUMMARY				
Location:				
Make A		Local Jurisdiction	City of Marysville	
A market		WRIA	7 – Snohomish	
	A STATE OF THE STA	WSDOE Rating (Hruby, 2014)	IV	
200	The Name of Street, St	Marysville Rating	IV	
	The state of the s	Marysville Buffer Width	75 feet	
nineral services	Control of the second	Wetland Size	7,049 SF	
War war	ALL THE LOCAL PROPERTY.	Cowardin Classification	PEMAB	
		HGM Classification	Depressional	
		Wetland Data Sheet(s)	DP-51	
24 (Jacob)		Upland Data Sheet (s)	DP-52	
公 本为		Boundary Flag color	Orange	
Dominant Vegetation	Wetland vegetation is dominated by common velvetgrass, toad rush, and fringed willowherb.			
Soils	Hydric soil indicators Al1 (Depleted Below Dark Surface), F3 (Depleted Matrix), and F6 (Redox Dark Surface) were observed at DP-51.			
Hydrology	Hydrology is likely provided by direct precipitation, surface sheet flow, and a seasonally high groundwater table.			
Rationale for Delineation	Wetland boundaries were determined by a transition to hydric soils.			
Rationale for Local Rating	Local rating is based upon WSDOE's current rating system and MMC 22E.010.060.1			
Wetland Functions Summary				
Water Quality	Wetland E can provide pollutant filtration due to the presence of persistent, ungrazed plants that cover greater than 10 percent of the wetland and seasonal ponding over greater than 25 percent of the wetland. Wetland E has moderate potential to provide water quality functions as some of the area surrounding the wetland generates pollutants. This ability to provide pollutant filtration is valuable as the unit is in a sub-basin where water quality is an issue. Wetland E scores 6 out of 9 points for water quality functions.			
Hydrologic	Wetland E can provide minimal water storage due to the lack of a constricted surface outlet. Wetland E has moderate potential to provide hydrologic functions the immediate area surrounding does not generate excessive runoff even though at least 25 percent of the contributing basin is covered in intensive human land uses. The ability of the wetland to provide water storage is valuable as the unit is in a sub-basin with flooding problems. Wetland E scores 5 out of 9 points for hydrologic functions.			
Habitat	Wetland E likely provides forage and cover for small terrestrial mammals and birds. Wetland E is located near WDFW Priority Habitats that increase the habitat value of the wetland. However, the wetland lacks special habitat features and contains only one Cowardin class, limiting the niche diversity within the wetland. Wetland E scores 5 out of 9 points for habitat functions.			
Buffer Condition	The onsite buffer surrounding Wetland		-	

Table 9. Wetland F Summary.

	WETLAND F – INFORMATION SUMMARY			
Location:	Wetland F is located on the northwest portion of the subject property's northern parcel; the wetland extends offsite to the northwest and west.			
		Local Jurisdiction	City of Marysville	
		WRIA	7 – Snohomish	
		WSDOE Rating (Hruby, 2014)	II	
		Marysville Rating	II	
		Marysville Buffer Width	100 feet	
		Wetland Size	645,855 SF	
	在	Cowardin Classification	PFO/SS/EMBC	
		HGM Classification	Depressional	
		Wetland Data Sheet(s)	MP/DP-30 and MP/DP-33	
		Upland Data Sheet (s)	MP/DP-29, MP/DP- 31, MP/DP-32, and MP/DP-34	
	Wetland vegetation is dominated by	Boundary Flag color	Orange	
Dominant Vegetation	(Salix lasiandra), Schouler's willow (Salix scouleriana), Hooker's willow (Salix hookeriana), Scoulers fumewort (Cordalis scouleri), hardhack (Spiraea douglasii), common velvetgrass, soft rush, Idaho fescue (Festuca idahoensis), and bird's-foot trefoil (Lotus corniculatus).			
Soils	Hydric soil indicator F6 (Redox Dark Surface) was observed at MP/DP-30 and MP/DP-33.			
Hydrology	Hydrology is likely provided by direct precipitation, surface sheet flow, and a seasonally high groundwater table.			
Rationale for Delineation	Wetland boundaries were determined by a transition to wetland hydrology and hydric soils. Wetland hydrology was determined by groundwater monitoring study. Wetland hydrology was observed at monitoring locations MP-30, MP-33, MP-35, and MP-36, and non-wetland hydrology was observed at monitoring location MP-29, MP-31, MP-32, and MP-34.			
Rationale for Local Rating				
	Wetland Function	•		
Water Quality	Wetland F can provide pollutant filtration due to the presence of persistent, ungrazed plants that cover greater than 95 percent of the wetland and an intermittently flowing outlet. This ability to provide pollutant filtration is valuable as the unit is in a sub-basin where water quality is an issue. Wetland F has moderate potential to provide water quality functions as some of the area surrounding the wetland generates pollutants. Wetland F scores 7 out of 9 points for water quality functions.			
Hydrologic	Wetland F can provide some water storage due to an intermittently flowing outlet and marks of ponding at least 6 inches above the bottom of the outlet. Wetland F has moderate potential to provide hydrologic functions the immediate area surrounding does not generate excessive runoff even though at least 25 percent of the contributing basin is covered in intensive human land uses. The ability of the wetland to provide water storage			

	is valuable as the unit is in a sub-basin with flooding problems. Wetland F scores 6 out of 9 points for water quality functions.
Habitat	Wetland F likely provides forage and cover for small terrestrial mammals and birds. Wetland F contains three Cowardin classes that provide niche diversity and contains many special habitat features. Wetland F is located near WDFW Priority Habitats that increase the habitat value of the wetland. Wetland F scores 6 out of 9 points for habitat functions.
Buffer	The onsite buffer surrounding Wetland F consists of agricultural land.
Condition	

5.3 Hayho Creek

The site investigation identified an onsite stream (Hayho Creek) along the western boundary of the subject property. Hayho Creek appears to be artificially channelized through the subject property, and the onsite portion was observed to be dry during the follow-up site assessment in early August 2018. Hayho Creek originates approximately 925 feet north and slightly west of the subject property. The creek's origin point is adjacent to single-family residential and commercial developments. The creek continues to flow south from the subject property through a straight channel for approximately 1.56 miles before meandering to the southeast and joining with the Quilceda Creek Middle Fork. DNR classifies an onsite agricultural ditch as Type N (non-fish-bearing); WDFW Salmonscape identifies the presumed presence of Dolly Varden/bull trout and coho and the modeled presence of chinook salmon (*Onchorynchus tshanytscha*), pink salmon (*Onchorynchus gorbuscha*), and steelhead trout (*Onchorynchus mykiss*) in Hayho Creek. Due to the modeled presence of salmonids by WDFW and lack of downstream barriers to fish passage, Hayho Creek is likely a Type F (fish-bearing) stream per MMC 22E.010.210.1.b. Per MMC 22E.010.220.1.a, Type F streams are subject to standard 150-foot buffers. A summary of Hayho Creek is provided in Table 10 below.

Revised April 6, 2022

Table 10. Drainage Summary – Hayho Creek.

DRAINAGE INFORMATION SUMMARY			
		Feature Name	Hayho Creek
		WRIA	7 – Snohomish
		WA Stream Catalog #	1221633481096
		Local Jurisdiction	City of Marysville
		DNR Stream Type	Type N – Non-Fish Bearing
		Local Stream Rating	Туре F
		Buffer Width	150 feet
		Documented Fish Use	None
Location of Feature	Hayho Creek is located near the western boundary of the subject property's northern tax parcel.		
Connectivity (where water flows from/to)	Hayho Creek originates approximately 925 feet north and slightly west of the subject property. The creek's origin point is adjacent to single-family residential and commercial developments. The creek continues to flow south from the subject property through a straight channel for approximately 1.56 miles before meandering to the southeast and joining with the Quilceda Creek Middle Fork.		
Riparian/Buffer Condition	The onsite buffer area consists of a narrow band of trees and agricultural land.		

5.4 Non-Regulated Drainages

Two intentionally, artificially excavated, linear, non-wetland, agricultural drainage ditches (Ditch Z and Ditch Y) were identified on the subject property as illustrated on site plan in Attachment C. Small drainage ditches are located on the western side of the south parcel, draining into Wetland C. An offsite roadside ditch (51st Avenue Northeast West Ditch) was observed along the west side of 51st Avenue Northeast. Ditch Z and Ditch Y are linear excavations draining agricultural fields. The two drainage ditches originate on the subject property and drain to Hayho Creek. DNR maps the northern ditch as a Type N waterbody, while WDFW Salmonscape includes modeled (not documented) salmonid presence within the north ditch. However, none of the observed drainage ditches exhibit natural stream characteristics (bed and bank) and do not meet the definition of a typed waterbody according to WAC 222-16-030. As such, they are likely considered non-regulated per MMC 22E.010.210.1.

Chapter 6. Regulatory Considerations

6.1 Local Critical Areas Requirements

6.1.1 Critical Area Buffers

MMC 22E.010.060.1 has adopted the 2014 wetland rating system. Category II wetlands provide moderately high levels of functions and score between 20 and 22 points on the *Washington State Wetland Rating System for Western Washington*. Category III wetlands generally provide moderate levels of functions and score less than 20 points on the revised wetland rating system. Category IV wetlands generally provide low levels of function and score less than 16 points on the revised wetland rating system (Hruby, 2014). The onsite Wetlands A, B, D, and E are Category IV wetlands. The onsite Wetland C is a Category III wetland, and the onsite Wetland F is a Category II wetland. Under MMC 22E.010.100.4 the standard buffers for Category II wetlands are 100 feet, the standard buffers for Category III wetlands are 75 feet, and the standard buffers for Category IV wetlands are 35 feet. Hayho Creek is a Type F stream with a 150-foot buffer under MMC 22E.010.220.1.a.

6.2 State and Federal Considerations

6.2.1 State Requirements

All identified onsite wetlands and Hayho Creek are likely to be regulated as waters of the state of Washington under the RCW 90.48 and WAC 173-201A. Any direct impacts to the wetlands or stream would be regulated by WSDOE under RCW 90.48 and require the seeking of an Administrative Order (AO) from WSDOE. The onsite ditches are artificially excavated features that are not likely to be regulated as wetlands. Due to surface water connections between the two onsite ditches (Ditches Z and Y) and a natural tributary (Hayho Creek), these ditches may be considered waters of the state. The drainage ditches on the western portion of the southern parcel flows into Wetland C and does not connect to any downgradient natural tributaries. This drainage ditches is not likely considered waters of the state.

6.2.2 Federal Requirements

The Federal Register published "The Navigable Waters Protection Rule: Definition of "Waters of the United States" on April 21, 2020. The Navigable Waters Protection Rule was the second step in reviewing and revising the definition of WOTUS as intended by the Executive Order "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States Rule." The Navigable Waters Protection Rule became effective June 22, 2020 and was in place during the time of the Approved Jurisdictional Determination.

The Navigable Waters Protection Rule effectively replaced the "Definition of Waters of the United States – Recodification of Pre-Existing Rules" rule published on October 22, 2019 (repealing the Clean Water Rule) and the 2008 joint guidance memorandum from USACE and EPA. The following describes potential regulatory classifications for the onsite stream, wetlands, and ditches under the Navigable Waters Protection Rule.

Under the final Navigable Waters Protection Rule, the agencies interpret the term WOTUS to encompass: 1) the territorial seas and traditional navigable waters; 2) perennial and intermittent

tributaries that contribute surface water flow to such waters; 3) certain lakes, ponds, and impoundments of jurisdictional waters; and 4) wetlands adjacent to other jurisdictional waters.

Under the final Navigable Waters Protection Rule, adjacent wetlands are subject to a different jurisdictional test than tributaries, lakes, ponds, and impoundments of jurisdictional wetlands. "Adjacent wetlands" are wetlands that: 1) abut a territorial seas or traditional navigable water, tributary, or a lake, pond, or impoundment of jurisdictional water; 2) are inundated from flooding from a territorial sea or traditional navigable water, or tributary, or from another jurisdictional lake, pond, or impoundment in a typical year; 3) are physically separated from a territorial seas, traditional navigable water, tributary, or a lake, pond, or impoundment of jurisdictional water only by a berm, bank, dune, or similar natural feature; or 4) are physically separated from a territorial sea or traditional navigable water, a tributary, or a lake, pond or impoundment of a jurisdictional water only by an artificial dike, barrier, or similar artificial structure so long as that structure allows for a direct hydrological surface connection to the territorial seas or traditional navigable water, tributary, or lake, pond, or impoundment of a jurisdictional water in a typical year.

The Navigable Waters Protection Rule specifies that WOTUS do not include: a) groundwater, including groundwater drained through subsurface drainage systems; b) ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools; c) diffuse stormwater runoff and directional sheet flow over upland; d) ditches that are not traditional navigable waters, tributaries, or that are not constructed in adjacent wetlands, subject to certain limitations; e) prior converted cropland; f) artificially irrigated areas that would revert to upland if artificial irrigation ceases; g) artificial lakes and ponds that are not jurisdictional impoundments and that are constructed or excavated in upland or non-jurisdictional waters; h) water-filled depressions constructed or excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel; i) stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff; j) groundwater recharge, water reuse, and wastewater recycling structures constructed or excavated in upland or in non-jurisdictional waters; and k) waste treatment systems.

Hayho Creek is not regulated as a WOTUS, as the creek is an artificial channel that did not relocate an existing tributary and was not constructed within a wetland (Appendix D). The onsite agricultural ditches and the offsite 51st Avenue West Ditch are artificially excavated ditches constructed for agricultural or roadside drainage purposes; these ditches are not constructed within tributaries, nor do they relocate a tributary. These ditches are not regulated as WOTUS (Appendix D). The remaining onsite wetlands (Wetlands A through E) are not regulated as WOTUS because they are not abutting a potentially regulated tributary and do not contribute surface water to a potentially regulated tributary. Wetlands A and B are separated from the 51st Avenue West Ditch by a berm that prevents a direct hydrologic surface connection between the wetlands and the ditch. In addition, Wetlands A and B are seasonally saturated, temporarily flooded depressional wetlands located near the 51st Avenue West Ditch near the eastern boundary of the south parcel. Wetland E is similarly separated from an adjacent onsite ditch by an upland berm that prevents a direct hydrologic surface connection to potentially jurisdictional waters. Wetlands C and D are a closed depression that lack an outlet and direct surface

vater connection to potentially jurisdictional waters. Please refer to Appendix D for the <i>Apprairies apprairies and July 13</i> , 2021.	roved

Chapter 7. Closure

The findings and conclusions documented in this report have been prepared for specific application to this project. They have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. Our work was also performed in accordance with the terms and conditions set forth in our proposal. The conclusions and recommendations presented in this report are professional opinions based on an interpretation of information currently available to us and are made within the operation scope, budget, and schedule of this project. No warranty, expressed or implied, is made. In addition, changes in government codes, regulations, or laws may occur. Due to such changes, our observations and conclusions applicable to this project may need to be revised wholly or in part.

Wetland and OHW status and boundaries identified by SVC are based on conditions present at the time of the site visit and considered preliminary until the estimated offsite wetland boundaries and flagged OHW boundaries are validated by the jurisdictional agencies. Validation of the wetland and OHW boundaries and jurisdictional status of such features by the regulatory agencies provides a certification, usually written, that the wetland and OHW determination and boundaries verified are the units that will be regulated by the agencies until a specific date or until the regulations are modified. Only the regulatory agencies can provide this certification.

As wetlands and aquatic areas are dynamic communities affected by both natural and human activities, changes in boundaries may be expected; therefore, delineations cannot remain valid for an indefinite period of time. Regulatory agencies typically recognize the validity of wetland and OHW delineations for a period of 5 years after completion of an assessment report. Development activities on a site five years after the completion of this assessment report may require reassessment of the wetland and OHW boundaries. In addition, changes in government codes, regulations, or laws may occur. Due to such changes, our observations and conclusions applicable to this site may need to be revised wholly or in part.

Chapter 8. References

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Appendix A — Methods and Tools

Table A-1. Methods and tools used to prepare the report.

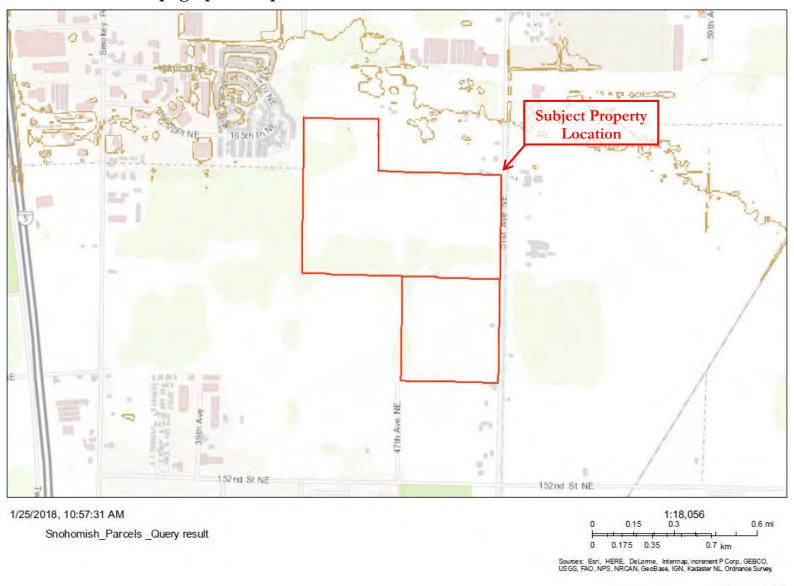
Table A-1.	Methods and tools used to prepare the report.			
Parameter	Method or Tool	Website	Reference	
Wetland Delineation	USACE 1987 Wetland Delineation Manual	http://el.erdc.usace.army.mil/e lpubs/pdf/wlman87.pdf	Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.	
	Regional Supplement to the Core of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)	http://www.usace.army.mil/C ECW/Documents/cecwo/reg /west_mt_finalsupp.pdf	U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.	
Wetland Classification	USFWS / Cowardin Classification System	http://www.fws.gov/nwi/Pub s_Reports/Class_Manual/class _titlepg.htm	Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. Government Printing Office, Washington, D.C.	
	Hydrogeomorphic Classification (HGM) System	http://el.erdc.usace.army.mil/ wetlands/pdfs/wrpde4.pdf	Brinson , M. M. (1993). "A hydrogeomorphic classification for wetlands," Technical Report WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.	
Wetland Rating	Washington State Wetland Rating System	https://fortress.wa.gov/ecy/p ublications/documents/140602 9.pdf	Hruby, T. (2014). Washington State Wetland Rating System for Western Washington: 2014 Update. (Publication #14-06-029). Olympia, WA: Washington Department of Ecology.	
	Marysville Municipal Code	https://www.codepublishing.c om/WA/Marysville/	Most current wetland rating system adopted per MMC 22E.010.060.1	
Wetland Indicator Status	2016 National Wetland Plant List	https://www.fws.gov/wetlands/documents/National- Wetland-Plant-List-2016- Wetland-Ratings.pdf	Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. <i>The National Wetland Plant List: 2016 wetland ratings.</i> Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X	
Stream Classification	Department of Natural Resources Water Typing System	Forest Practices Water Typing: http://www.stage.dnr.wa.gov/f orestpractices/watertyping/	Washington Administrative Code (WAC) 222-16-030. DNR Water typing system.	
Plant Names	USDA Plant Database	http://plants.usda.gov/	Website	
	Flora of the Pacific Northwest	http://www.washington.edu/u wpress/search/books/HITFL C.html	Hitchcock , C.L. and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press. Seattle, Washington.	
Soils Data	NRCS Soil Survey	http://websoilsurvey.nrcs.usda. gov/app/WebSoilSurvey.aspx	Website GIS data based upon: Debose, A. and M. Klungland. 1983. Soil Survey of Snohomish County Area, Washington. United States Department of Agriculture, Soil Conservation Service, in cooperation with the Washington Agricultural Experiment Station.	
Hydric Soils Data	Snohomish County Hydric Soils List	http://www.wa.nrcs.usda.gov/technical/soils/hydric_lists/hydsoil-wa-653.pdf	Natural Resources Conservation Service. 1979. Hydric Soils List: Skagit County, Washington. U.S. Department of Agriculture. Washington D.C.	
	Washington Natural Heritage Program	http://data- wadnr.opendata.arcgis.com/dat	Washington Natural Heritage Program (Data published 07/19/17). Endangered, threatened, and sensitive plants of Washington. Washington State	

Parameter	Method or Tool	Website	Reference
Threatened and Endangered		asets/wnhp-current-element- occurrences	Department of Natural Resources, Washington Natural Heritage Program, Olympia, WA
Species	Washington Priority Habitats and Species	http://wdfw.wa.gov/hab/phsp age.htm	Priority Habitats and Species (PHS) Program (Data requested 01/25/18). Map of priority habitats and species in project vicinity. Washington Department of Fish and Wildlife (WDFW).
	NOAA fisheries species list and maps	http://www.nwr.noaa.gov/ES A-Salmon-Listings/Salmon- Populations/Index.cfm and http://www.nmfs.noaa.gov/pr /species/	Website
	USFWS species lists by County	http://www.fws.gov/westwaf wo/se/SE_List/endangered_S pecies.asp	Website
Species of Local Importance	WDFW GIS Data	http://wdfw.wa.gov/mapping/ salmonscape/	Website
Report Preparation	Marysville Municipal Code	https://www.codepublishing.c om/WA/Marysville/	MMC Chapter 22E.010 Critical Areas

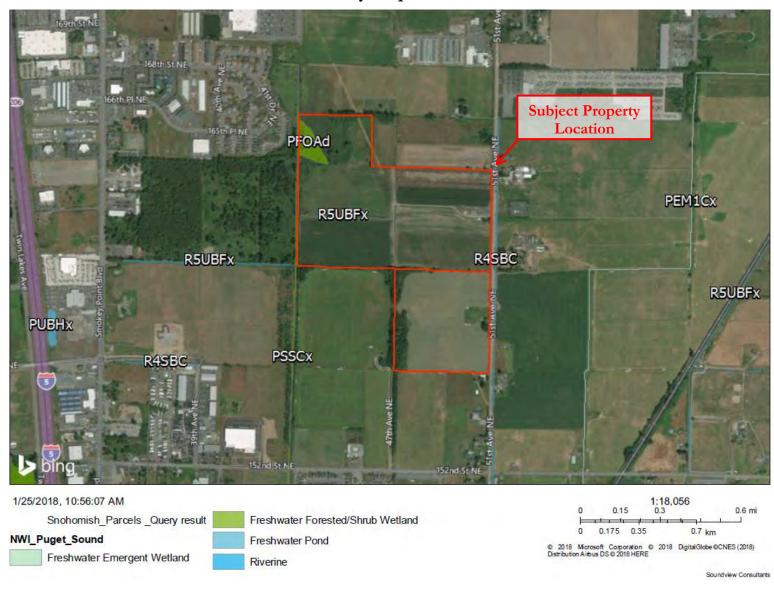
Appendix B — Background Information

This appendix includes a USGS Topographic Map (B1); USFWS NWI map (B2); NRCS soil survey map (B3); Snohomish County wetland inventory (B4); Snohomish County stream inventory (B5); WDFW PHS map (B6); WDFW SalmonScape map (B7); and DNR stream typing map (B8).

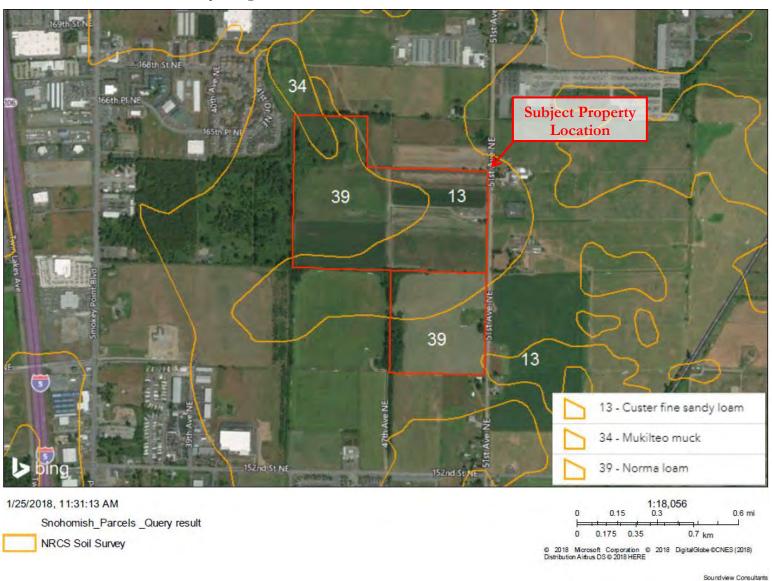
Appendix B1 – USGS Topographic Map



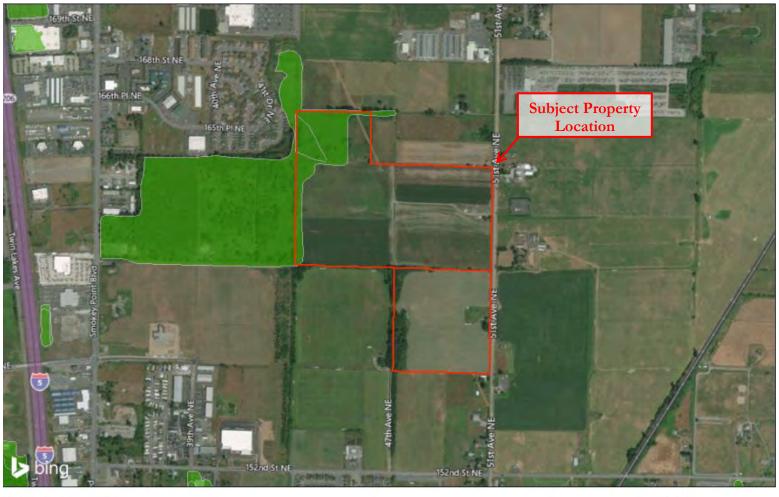
Appendix B2 – USFWS National Wetland Inventory Map



Appendix B3 - NRCS Soil Survey Map



Appendix B4 – Snohomish County Wetland Inventory Map

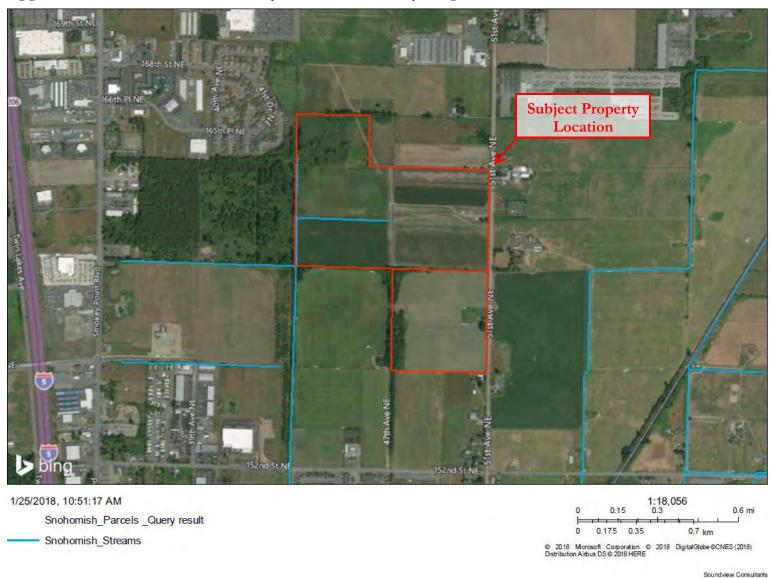


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Snohomish_Wetlands

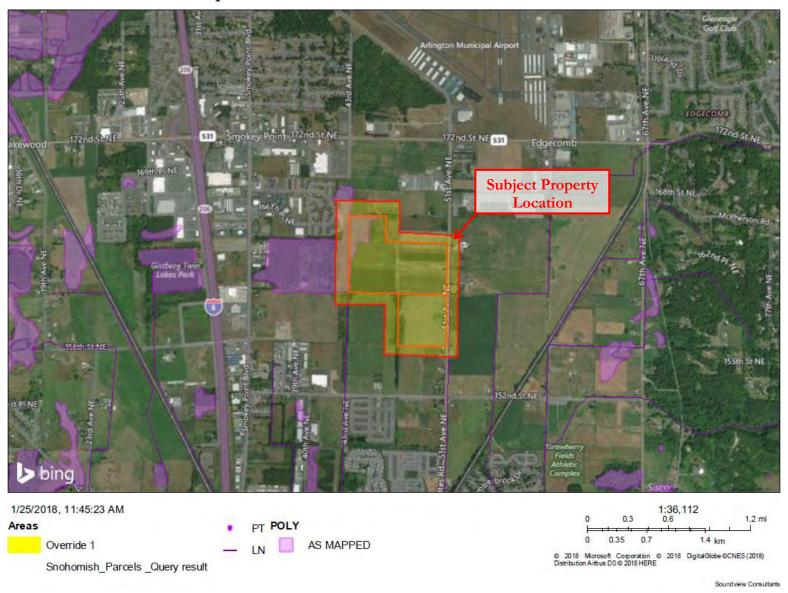


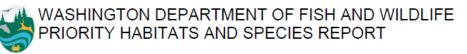
Soundview Consultants

Appendix B5 – Snohomish County Stream Inventory Map



Appendix B6 – WDFW PHS Map





SOURCE DATASET: PHSPlusPublic Query ID: P180125120252

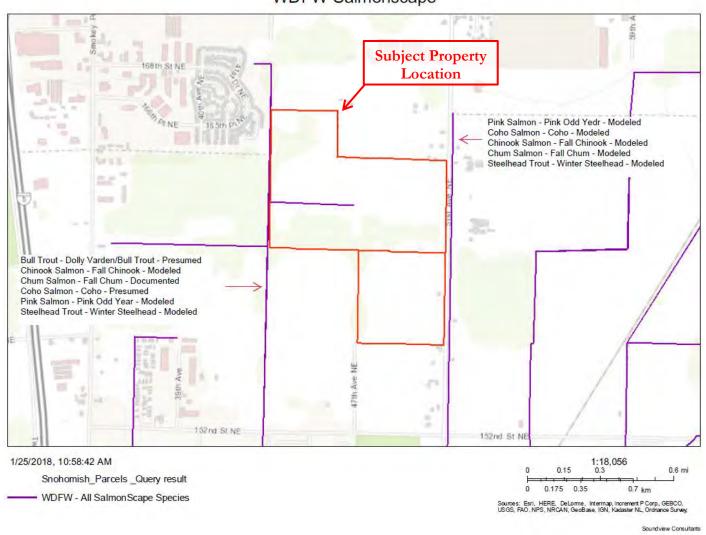
REPORT DATE: 01/25/2018 12.03

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Coho Oncorhynchus kisutch	SWIFD 34621	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/divers http://wdfw.wa.gov/publication	•	N/A N/A PHS LISTED	N AS MAPPED	Lines
Dolly Varden/ Bull Trout Salvelinus malma	SWIFD 34623	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/divers http://wdfw.wa.gov/publicatior	•	N/A N/A PHS LISTED	N AS MAPPED	Lines
Fall Chum Oncorhynchus keta	SWIFD 34618	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/divers http://wdfw.wa.gov/publication	•	N/A N/A PHS LISTED	N AS MAPPED	Lines
Fall Chum Oncorhynchus keta	SWIFD 34619	Breeding Area Breeding area http://wdfw.wa.gov/wlm/divers http://wdfw.wa.gov/publication	•	N/A N/A PHS LISTED	N AS MAPPED	Lines
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Resident Coastal Cutthroat Oncorhynchus clarki	SWIFD 34098	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/divers http://wdfw.wa.gov/publicatior	•	N/A N/A PHS LISTED	N AS MAPPED	Lines
Resident Coastal Cutthroat Oncorhynchus clarki	SWIFD 34616	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/divers http://wdfw.wa.gov/publicatior	-	N/A N/A PHS LISTED	N AS MAPPED	Lines

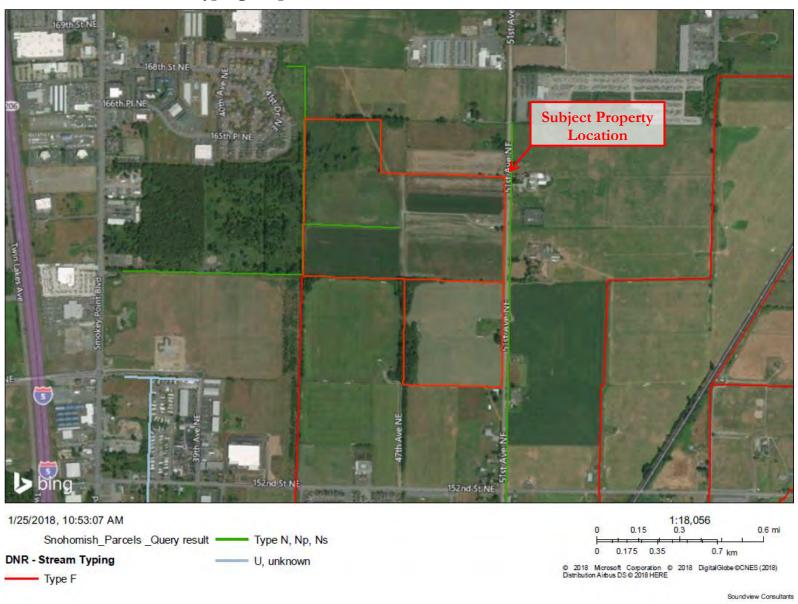
Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Wetlands	QUILCEDA CREEK PHSREGION 902737	Aquatic Habitat N/A	1/4 mile (Quarter	N/A N/A	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
		http://www.ecy.wa.		PHS LISTED		

Appendix B7 – WDFW SalmonScape Map

WDFW Salmonscape

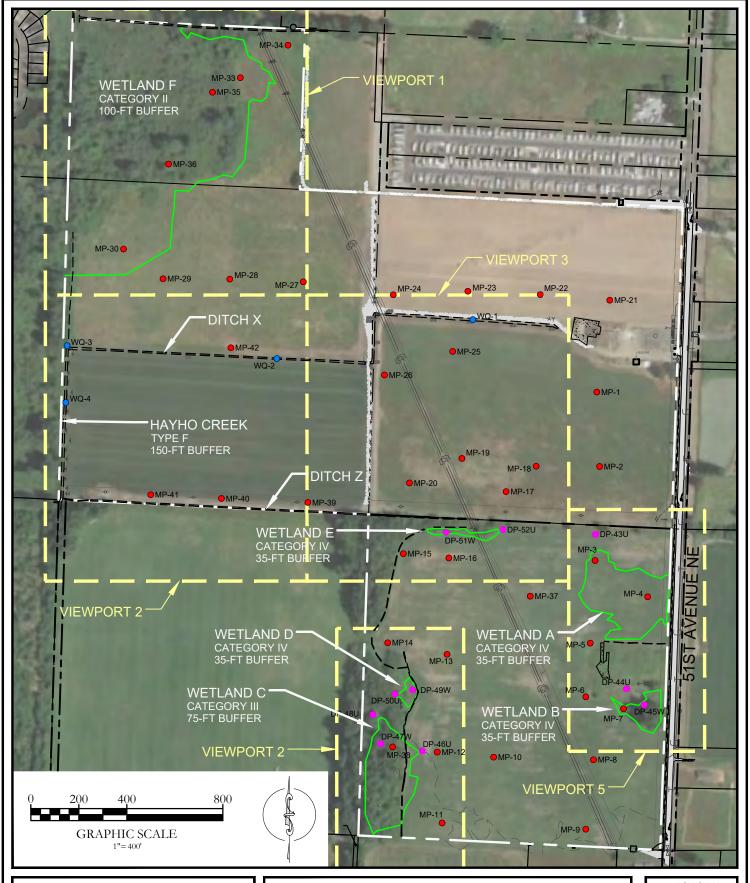


Appendix B8 – DNR Steam Typing Map



Appendix C — Existing Conditions Map

WILLIAMS INVESTMENTS - EXISTING CONDITIONS



WILLIAMS INVESTMENTS

15808 & 16204 51ST AVENUE NE MARYSVILLE, WASHINGTON 98271-7506

THE SE **½** OF SECTION 28, TOWNSHIP 31, RANGE 5E, W.M.



2907 HARBORVIEW DRIVE, SUITE D P. 253.514.8952
GIG HARBOR, WASHINGTON 98335 F. 253.514.8954

WWW.SOLINDVIEW.CONSULTANTS.COM

DATE: 1/28/2020 JOB: 1778.0003

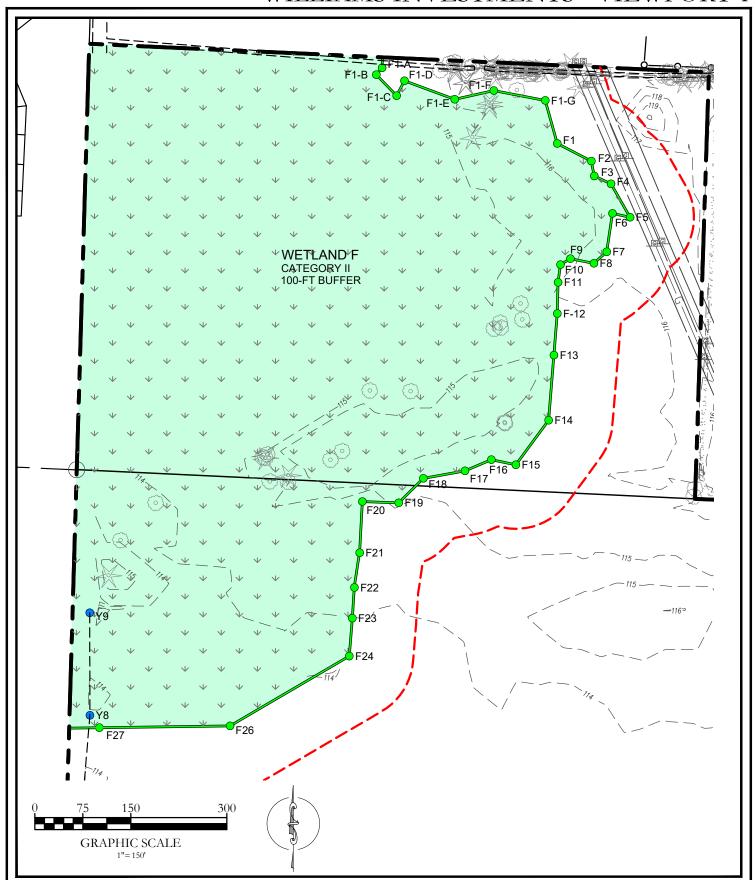
BY: MW

SCALE: AS SHOWN

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WILLIAMS INVESTMENTS - VIEWPORT 1



WILLIAMS INVESTMENTS

15808 & 16204 51ST AVENUE NE MARYSVILLE, WASHINGTON 98271-7506

THE SE **½** OF SECTION 28, TOWNSHIP 31, RANGE 5E, W.M.



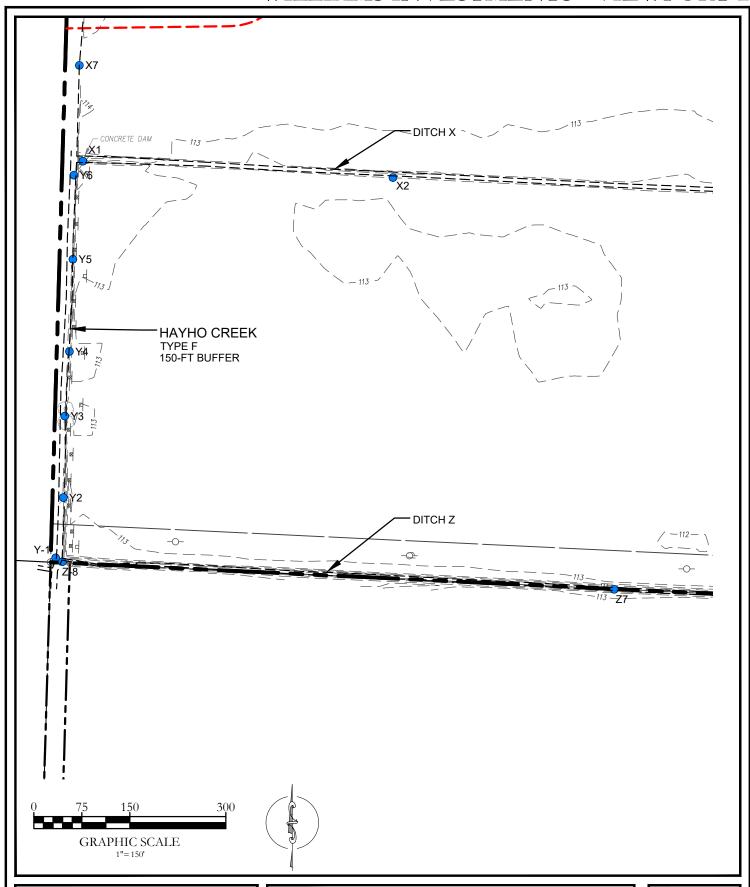
2907 HARBORVIEW DRIVE, SUITE D P. 253.514.8952
GIG HARBOR, WASHINGTON 98335 F. 253.514.8954
WWW.SOUNDVIEWCONSULTANTS.COM

DATE: 1/28/2020 JOB: 1778.0003 BY: MW

SCALE: AS SHOWN

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WILLIAMS INVESTMENTS - VIEWPORT 2



WILLIAMS INVESTMENTS

15808 & 16204 51ST AVENUE NE MARYSVILLE, WASHINGTON 98271-7506

THE SE **½** OF SECTION 28, TOWNSHIP 31, RANGE 5E, W.M.



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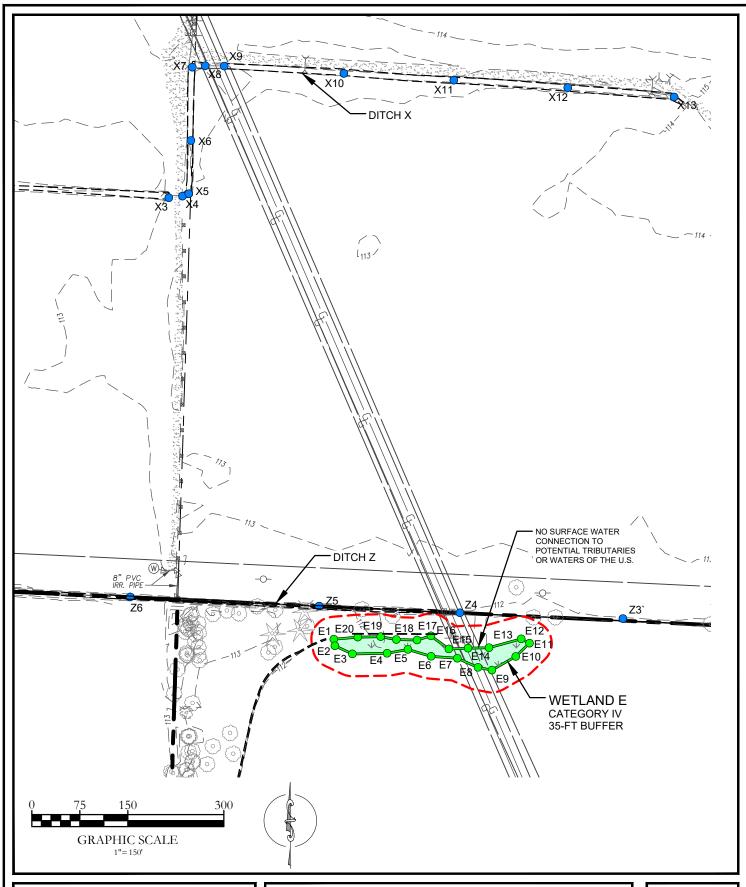
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SCALE: AS SHOWN

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WILLIAMS INVESTMENTS - VIEWPORT 3



WILLIAMS INVESTMENTS

15808 & 16204 51ST AVENUE NE MARYSVILLE, WASHINGTON 98271-7506

THE SE $\frac{1}{4}$ OF SECTION 28, TOWNSHIP 31, RANGE 5E, W.M.



2907 HARBORVIEW DRIVE, SUITE D P. 253.514.8952
GIG HARBOR, WASHINGTON 98335 F. 253.514.8954
WWW.SOUNDVIEWCONSULTANTS.COM

DATE: 1/28/2020 JOB: 1778.0003

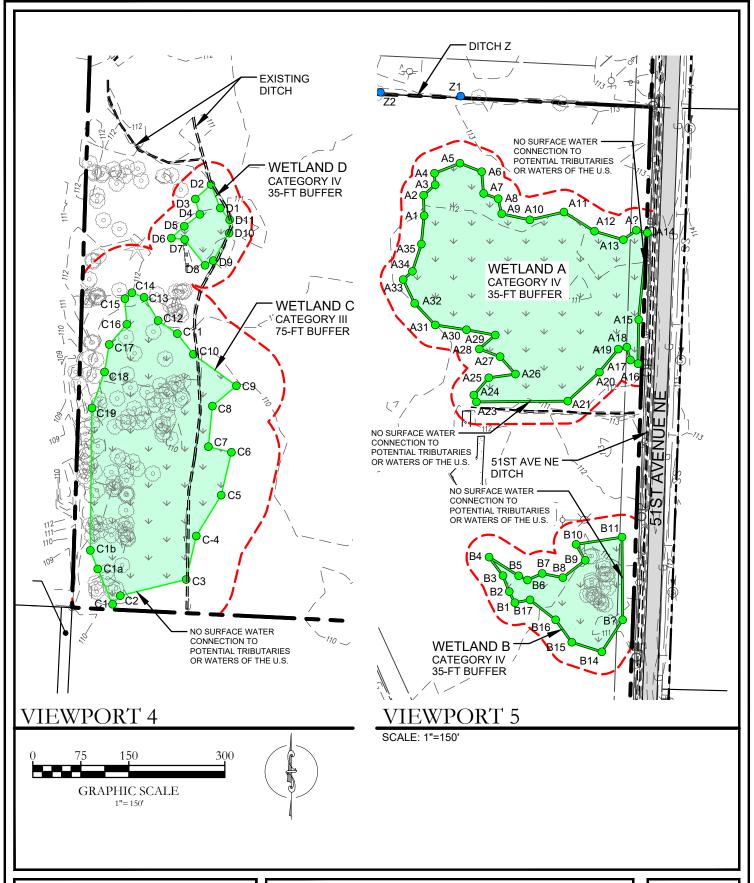
BY: MW

SCALE: AS SHOWN

SHEET: 4

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WILLIAMS INVESTMENTS - VIEWPORTS 4 & 5



WILLIAMS INVESTMENTS

15808 & 16204 51ST AVENUE NE MARYSVILLE, WASHINGTON 98271-7506

THE SE **Z** OF SECTION 28, TOWNSHIP 31, RANGE 5E, W.M.



DATE: 1/28/2020 JOB: 1778.0003 BY: MW SCALE: AS SHOWN

SHEET: 5

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Appendix D —Approved Jurisdictional Determinations



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT P.O. BOX 3755 SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

February 24, 2021

Mr. Ryan Kilby Williams Investments 2517 Colby Avenue Everett, Washington 98201

Reference: NWS-2021-130

Williams Investments

(AJD Request)

Dear Mr. Kilby:

On February 18, 2021, we conducted a review of your Wetland Delineation, Groundwater Monitoring, and Fish and Wildlife Habitat Assessment Report for Williams Investments dated January 2021 for the property at Marysville, Washington in response to your request for verification of the jurisdictional limits of waters of the U.S. in the review area as shown on the enclosed drawings dated February 16, 2021. The U.S. Army Corps of Engineers has determined that Wetland F is a water of the U.S. This determination applies only to the review area. Other waters and wetlands that may occur on this property outside the review area are not the subject of this determination.

We have also determined that Hayho Creek, Ditch X, Ditch Z, the 51st Avenue West Ditch, the linear drainage feature adjacent to Wetland A, the southern drainage ditch, and Wetlands A – E are not waters of the U.S. because they are excluded non-waters of the U.S. per 33 CFR Part 328.3 (b). As such, work that would occur within these areas does not require Department of the Army authorization under Section 404 of the Clean Water Act. Other state and local regulations may still apply to these wetlands. For example, the Washington State Department of Ecology (Ecology) may regulate these wetlands. For information on how to obtain State approval for your project, you should contact Ecology's Federal Permit Coordinator at ecyrefedpermits@ecy.wa.gov or at (360) 407-6068. Information regarding State permitting requirements can also be found at the following website: https://ecology.wa.gov/Water-Shorelines/Wetlands/Regulations. We are sending a copy of this letter to Ecology and to the Environmental Protection Agency's Aquatic Resources Unit.

This approved jurisdictional determination is valid for a period of five years from the date of this letter unless new information warrants revisions of the determination. A copy of this jurisdictional determination, dated February 24, 2021 is enclosed and can be found on our website at www.nws.usace.army.mil select "Regulatory Branch, Permit Information" and then

"Jurisdictional Determinations". If you object to this determination, you may request an administrative appeal under our regulations (33 Code of Federal Regulations, Part 331) as described in the enclosed *Notification of Administrative Appeal Options and Process and Request for Appeal* form.

A copy of this letter with drawings will be furnished to Mr. Jon Pickett at jon@soundviewconsultants.com. If you propose to do any work in the areas identified to be waters of the U.S., you should contact our office prior to commencing work to determine permit requirements. Please note that conducting certain activities in waters of the U.S. without Department of the Army authorization would violate Federal law. If you have any questions, please contact Ms. Amanda Nadjkovic at amanda.n.nadjkovic@usace.army.mil or at (206) 316-3156.

Sincerely,

Kristina G. Tong, Section Chief

Regulatory Branch

Enclosures



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT P.O. BOX 3755 SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

July 13, 2021

Mr. Ryan Kilby Williams Investments 2517 Colby Avenue Everett, Washington 98201

Reference: NWS-2021-130

Williams Investments

(AJD Request)

Dear Mr. Kilby:

Based on an availability of new information, the U.S. Army Corps of Engineers (Corps) has re-evaluated your request for verification of the jurisdictional limits of Wetland F, located at Marysville, Washington in the review area as shown on the enclosed drawings dated February 16, 2021. The Corps has determined that Wetland F is not a water of the U.S. because it is an excluded non-water of the U.S. per 33 CFR Part 328.3 (b). As such, work that would occur within this area does not require Department of the Army authorization under Section 404 of the Clean Water Act. This determination supersedes the previous determination by this office dated February 24, 2021. All other determinations contained in the original approved jurisdictional determination, dated February 24, 2021, remain unchanged.

Other state and local regulations may still apply to this wetland. For example, the Washington State Department of Ecology (Ecology) may regulate this wetland. For information on how to obtain State approval for your project, you should contact Ecology's Federal Permit Coordinator at ecyrefedpermits@ecy.wa.gov or at (360) 407-6068. Information regarding State permitting requirements can also be found at the following website: https://ecology.wa.gov/Water-Shorelines/Wetlands/Regulations. We are sending a copy of this letter to Ecology and to the Environmental Protection Agency's Aquatic Resources Unit.

This approved jurisdictional determination is valid for a period of five years from the date of this letter unless new information warrants revisions of the determination. A copy of this jurisdictional determination, dated June 16, 2021, is enclosed and can be found on our website at www.nws.usace.army.mil select "Regulatory Branch, Permit Information" and then "Jurisdictional Determinations". If you object to this determination, you may request an administrative appeal under our regulations (33 Code of Federal Regulations, Part 331) as described in the enclosed *Notification of Administrative Appeal Options and Process and Request for Appeal* form.

A copy of this letter with drawings will be furnished to Mr. Jon Pickett at jon@soundviewconsultants.com. If you propose to do any work in the areas identified to be waters of the U.S., you should contact our office prior to commencing work to determine permit requirements. Please note that conducting certain activities in waters of the U.S. without Department of the Army authorization would violate Federal law. If you have any questions, please contact Ms. Amanda Nadjkovic at amanda.n.nadjkovic@usace.army.mil or at (206) 316-3156.

Sincerely,

Amanda Nadikovic, Project Manager

Regulatory Branch

Enclosures

cc:

Washington State Department of Ecology (ecyrefedpermits@ecy.wa.gov) EPA, Region 10 (R10 Wetlands and Oceans@epa.gov)

Appendix E — Data Sheets

Project/Site: 1655.0001 / Schoultes Property		City/Count	_{y:} Marysv	rille / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-1
Investigator(s): Emily Swaim, Jon Pickett, Richard F					
Landform (hillslope, terrace, etc.): Valley Floor		Local reli	ef (concave,	convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: _48.	.142584		Long: -122.1633602	22 Datum: WGS 84
Soil Map Unit Name: Custer fine sandy loam				NWI classificat	ion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes 🗷] No 🗌 (I	f no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	(If neede	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplin	ıg point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☐ No 🗵			ne Sampled		F-7
Wetland Hydrology Present? Yes ☐ No 🗵		with	nin a Wetlar	nd? Yes ☐ No) <u>X</u>
Remarks: Not all three wetland criteria observed, only	nydrophytic	vegetatio	on present :	disked: non-wetland hydr	cology confirmed by
groundwater monitoring study	J P J		r ,		8,,
VEGETATION – Use scientific names of plan	ts.				
	Absolute			Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			Number of Dominant Spo That Are OBL, FACW, or	
2				Total Number of Domina	_
3				Species Across All Strata	a: <u>2</u> (B)
4 Sapling/Shrub Stratum (Plot size: 15 ft)	^	= Total C	Cover	Percent of Dominant Spe That Are OBL, FACW, or	
1				Prevalence Index work	sheet:
2.				Total % Cover of:	Multiply by:
3				OBL species 0	x 1 = <u>0</u>
4					x 2 = 100
5					x 3 = <u>150</u>
Harl Otrature (Distains 5 ft)	0	= Total C	Cover		x 4 = 0
<u>Herb Stratum</u> (Plot size: <u>5 ft)</u> 1. Viola glabella	50	Yes	FACW	UPL species 0	x 5 = 0
2 Cardamine oligosperma	50	Yes	FAC	Column Totals: 100	(A) <u>250</u> (B)
3				Prevalence Index	= B/A = <u>2.5</u>
4				Hydrophytic Vegetation	
5				☐ Rapid Test for Hydro	phytic Vegetation
6.				▼ Dominance Test is >	50%
7				▼ Prevalence Index is :	≤3.0 ¹
8.					ations ¹ (Provide supporting or on a separate sheet)
9				□ Wetland Non-Vascul	• ,
10				l -	nytic Vegetation¹ (Explain)
11	400				and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	100	= Total C		be present, unless distur	
1		-		Hydrophytic	
2	0			Vegetation	V No□
% Bare Ground in Herb Stratum 0	<u> </u>	= Total C	Jover	Present? Yes	⊠ No □
Remarks: Hydrophytic vegetation criterion observ			nance test	indicator	
Trydrophytic vegetation circenon observ	voa unou(gii aoiiill	idiloe lesi	i maloator.	

Profile Dese	Matrix			Red	ox Feature	25					
(inches)	Color (moist)	%	Colo	or (moist)	<u>%</u>	Type ¹	Loc ²	Textur	<u>e</u>	<u>Remarks</u>	
0 - 15	10YR 2/2	100		· · · · · ·				SaLo)	Gravelly	
15 - 35	5Y 4/3	50	2.5	YR 3/6	50	С	M	Sand			
					_						
	Concentration, D=De Indicators: (Appl						ed Sand Gr			ation: PL=Pore Lining, M=Matrix rs for Problematic Hydric Soils	
-		icable to				ieu.,				•	•
☐ Histosol	pipedon (A2)			Sandy Redox (Stripped Matrix						Muck (A10) Parent Material (TF2)	
	istic (A3)			_oamy Mucky		1) (except	MIRA1)			Shallow Dark Surface (TF12)	
	en Sulfide (A4)			_oamy Gleyed	•				-	r (Explain in Remarks)	
	d Below Dark Surfa	ce (A11)		Depleted Matri		,				,	
	ark Surface (A12)	,		Redox Dark Sı				³ 1	ndicato	rs of hydrophytic vegetation and	
☐ Sandy M	Mucky Mineral (S1)			Depleted Dark	Surface (F	7)			wetla	nd hydrology must be present,	
	Gleyed Matrix (S4)		I	Redox Depres	sions (F8)				unles	s disturbed or problematic.	
	Layer (if present):										
Type:				_							
Depth (in	nches):							Hydr	ic Soil	Present? Yes 🗌 No 🗵	
Remarks:											
No hydric	soils indicators	observ	ed.								
, ,											
	nev										
		e·									
Wetland Hy	drology Indicator		uired: che	eck all that an	oly)				Secon	dary Indicators (2 or more requir	2d)
Wetland Hy	drology Indicators		uired; che			os (B0) (a	voont MI R			dary Indicators (2 or more require	
Wetland Hy Primary Indi Surface	drology Indicators icators (minimum of Water (A1)		uired; che	☐ Water-Sta	ained Leav		xcept MLR	RA		ater-Stained Leaves (B9) (MLRA	
Wetland Hy Primary Indi ☐ Surface ☑ High Wa	rdrology Indicators icators (minimum of Water (A1) ater Table (A2)		uired; che	☐ Water-Sta	ained Leav I A, and 4E		xcept MLR	RA	□ W:	ater-Stained Leaves (B9) (MLRA 4A, and 4B)	
Wetland Hy Primary Indi ☐ Surface ☒ High Wa ☒ Saturatio	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3)		uired; che	☐ Water-Sta 1, 2, 4 ☐ Salt Crust	ained Leav I A, and 4E t (B11)	3)	xcept MLR	RA	☐ W	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10)	
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Wetland Hy Primary Indi ☐ Surface ☑ High Wa ☑ Saturatio ☐ Water M ☐ Sedimer ☐ Drift Dep ☐ Algal Ma	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; che	Water-Star 1, 2, 4 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence	ained Leav IA, and 4E t (B11) avertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) res along ed Iron (C4	Living Root	ts (C3)	Wa	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3)	1, 2,
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Project/Site: 1655.0001 / Schoultes Property		City/C	County:	Marysv	ille / Snohomish	Samplir	ng Date: 03/0)1/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-		State: WA		_	
Investigator(s): Richard Peel, Emily Swaim			§	Section, To	wnship, Range: 28, 3	31, 05N		
Landform (hillslope, terrace, etc.): Valley Floor		Loca	al relief	(concave,	convex, none): Conc	cave	Slope (%	6): <u>0</u>
Subregion (LRR): A-2	_ Lat: 48	.138	471		Long: -122.1649	8662	Datum: V	VGS 84
Soil Map Unit Name: Norma Ioam					NWI classi			
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remark			
Are Vegetation, Soil, or Hydrology sign					ormal Circumstances" p	resent? Ye	es 🗵 No 🗌	J
Are Vegetation, Soil, or Hydrology natu	-			(If neede	ed, explain any answer	s in Remark	is.)	
SUMMARY OF FINDINGS – Attach site map				point lo	ocations, transec	ts, impor	tant featur	es, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				Sampled		N. 63		
Wetland Hydrology Present? Yes ☐ No 🗵			withii	n a Wetlan	ıd? Yes □	No 🔀		
Remarks: Not all three wetland criteria observed, hydro groundwater monitoring study.	phytic vege	etation	n & we	tland hydi	rology present. Non-w	vetland hydi	rology confir	med by
VEGETATION - Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			Indicator	Dominance Test wo			
1					Number of Dominant That Are OBL, FACV		1	(A)
2.								- ()
3					Total Number of Don Species Across All S		1	_ (B)
4					Percent of Dominant	Species		
Sapling/Shrub Stratum (Plot size: 15 ft)	0	= To	otal Co	ver	That Are OBL, FACV		100%	_ (A/B)
1					Prevalence Index w	orksheet:		
2.					Total % Cover of	<u>f:</u>	Multiply by:	
3.					OBL species 0	x	1 = 0	
4					FACW species 0			
5							3 = <u>75</u>	
Herb Stratum (Plot size: 5 ft)	0	= To	otal Co	ver			4 = 0	
1. Holcus lanatus	25	Ye	es.	FAC		X		
2					Column Totals: 25	(A)) <u>75</u>	(B)
3.					Prevalence Ind	ex = B/A =	3	
4					Hydrophytic Vegeta	tion Indicat	tors:	
5					☐ Rapid Test for Hy	/drophytic V	egetation	
6					■ Dominance Test	is >50%		
7					Prevalence Index			
8					☐ Morphological Addata in Rema			
9					☐ Wetland Non-Vas		•	,,,
10					☐ Problematic Hydi			lain)
11	25				¹Indicators of hydric s	. , .		,
Woody Vine Stratum (Plot size: 30 ft)		= To	otal Co	ver	be present, unless di	sturbed or p	roblematic.	
1					Hydrophytic			
2					Vegetation			
% Bare Ground in Herb Stratum 75	0	= To	otal Co	ver	Present?	Yes ⊠ No) 📙	
Remarks: Hydrophytic vegetation criterion observ	vod throu	ah d	omina	ance test	indicator			
r rydropriytic vegetation criterion obser	v e น แทบน์	gii u	OHIIII	ance test	mulcalur.			

D "				5 . 5 .			
Depth (inches)	Matrix Color (moist)	%	Colo	Redox Features or (moist) % Type ¹	Loc2	Textu	re Remarks
0 - 10	10YR 3/2	100		70 Type		SaL	
10 - 30	10YR 3/2	100	_			San	
10 00	10111 0/2	_ 100				Odin	<u> </u>
			_				
				luced Matrix, CS=Covered or Coate	ed Sand Gr		² Location: PL=Pore Lining, M=Matrix.
=		icable to		s, unless otherwise noted.)			dicators for Problematic Hydric Soils ³ :
Histosol	, ,			Sandy Redox (S5)			2 cm Muck (A10)
☐ Histic Ep	oipedon (A2)			Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except	MI DA 1)		Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Gleyed Matrix (F2)	WILKA I)		_
	d Below Dark Surfa	ce (A11)		Depleted Matrix (F3)		_	Guier (Explain in Nemarks)
-	ark Surface (A12)	,		Redox Dark Surface (F6)		3	ndicators of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark Surface (F7)			wetland hydrology must be present,
☐ Sandy G	Gleyed Matrix (S4)		□ I	Redox Depressions (F8)			unless disturbed or problematic.
Restrictive	Layer (if present):						
Type:							
Depth (in	ches):					Hydr	ic Soil Present? Yes □ No 🗵
Remarks:							
No hvdric s	soils indicators	observ	ed.				
		0.000.1					
	ncv						
		s.					
Wetland Hy	drology Indicator		uired: che	eck all that apply)			Secondary Indicators (2 or more required)
Wetland Hy	drology Indicators		uired; che		cent MI R	2Δ	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MI RA 1 2
Wetland Hyder Primary India	drology Indicators cators (minimum of Water (A1)		uired; che	☐ Water-Stained Leaves (B9) (ex	xcept MLR	 RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary India ☐ Surface ☐ High Wa	rdrology Indicators cators (minimum of Water (A1) ater Table (A2)		uired; che	☐ Water-Stained Leaves (B9) (each 1, 2, 4A, and 4B)	xcept MLR		☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hy Primary India □ Surface □ High Wa □ Saturatio	cators (minimum of Water (A1) ater Table (A2) on (A3)		uired; che	 ☐ Water-Stained Leaves (B9) (extended in the state of th	xcept MLR	æA.	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hy Primary India □ Surface □ High Wa □ Saturatio □ Water M	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)		uired; che	☐ Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13)	xcept MLR	RA	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2)
Wetland Hy Primary India □ Surface □ High Wa □ Saturatio □ Water M □ Sedimen	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		uired; che	 □ Water-Stained Leaves (B9) (extended to the state of the st			 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		uired; che	 □ Water-Stained Leaves (B9) (extended to the control of the control of	Living Root		 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; cho	Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4)	Living Root	ts (C3)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; che	Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	Living Roof) d Soils (C6)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	one requ		Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D	Living Roof) d Soils (C6)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydelic Primary India Surface Selection High Water Mage Sediment Control Prift Dep Algal Mater Mage Iron Dep Surface Selection Inundation	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial	one requ	(B7)	Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	Living Roof) d Soils (C6)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar crations: ter Present? Present? Present?	Imagery ve Surfac Yes Yes Yes Yes Yes Yes Yes Yes	(B7) te (B8) No ⊠ No □ No □	Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): 10	Living Roof) d Soils (C6) 1) (LRR A) Wetla	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P (includes cal	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar crations: ter Present? Present? Present?	Imagery ve Surfac Yes Yes Yes Yes Yes Yes Yes Yes	(B7) te (B8) No ⊠ No □ No □	Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): 10	Living Roof) d Soils (C6) 1) (LRR A) Wetla	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cal Describe Re	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar reations: ter Present? Present? pillary fringe) corded Data (streat	Imagery ve Surfac Yes Yes Yes Yes Margange	(B7) se (B8) No ☑ No ☐ No ☐ , monitor	Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (Dr. Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): 1	Living Roof) d Soils (C6) 1) (LRR A) Wetla	ts (C3)) and Hyo	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Wetland Hyderimary India Surface High Wa Saturation Water M Sediment Drift Dept Algal Mater Iron Dept Surface Inundation Sparsely Field Obsert Surface Water Table Saturation P (includes cape Describe Reserved Remarks:	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar reations: ter Present? Present? pillary fringe) ecorded Data (streat	Imagery ve Surface Yes Yes Yes Yes Magauge On obse	(B7) te (B8) No ☑ No ☐ No ☐ the monitor Perved the monitor is t	Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (Dr. Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): 1	Living Roof) I Soils (C6) (I) (LRR A) Wetla expections),	and Hyd	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7) drology Present? Yes □ No ☑ ble: on-growing season at time of

Project/Site: 1655.0001 / Schoultes Property	(City/Co	_{ounty:} Mai	rysvil	le / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper					_ State: WA	Sampling Point: DP-11
					vnship, Range: 28, 31,	
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief (cond	cave, c	convex, none): None	Slope (%): 2
Subregion (LRR): A-2	_ Lat: <u>48.</u>	13772	20		Long: -122.1658326	4 Datum: WGS 84
Soil Map Unit Name: Norma Ioam					NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Ye	s 🗷 No [☐ (If	no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed'	? Are	e "Nor	mal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If r	neede	d, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	oling poi	nt lo	cations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐						
Hydric Soil Present? Yes ☐ No 🗵			Is the Sam	-		
Wetland Hydrology Present? Yes ☐ No 🗵		'	within a W	etiano	d? Yes ☐ No) <u>X</u>
Remarks: Not all three wetland criteria observed, hydro	phytic vege	etation	present; d	lisked.	. Non-wetland hydrolog	y confirmed by groundwater
monitoring study.					, 3.	, , , , , ,
VEGETATION – Use scientific names of plan	ts.					
			nant Indica		Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			<u>us</u>	Number of Dominant Spo That Are OBL, FACW, or	
2					Total Number of Domina	
3					Species Across All Strata	a: <u>1</u> (B)
4 Sapling/Shrub Stratum (Plot size: 15 ft)	0				Percent of Dominant Spe That Are OBL, FACW, or	
1					Prevalence Index work	sheet:
2					Total % Cover of:	Multiply by:
3						x 1 = <u>0</u>
4						x 2 = 0
5						x 3 = 165
Herb Stratum (Plot size: 5 ft)	0	= Tot	al Cover			x 4 = 0
1. Holcus lanatus	55	Yes	FAC	;	UPL species 0 Column Totals: 55	x = 0
2.					Column Totals: 33	(A) <u>165</u> (B)
3.					Prevalence Index	= B/A = <u>3</u>
4				[Hydrophytic Vegetation	n Indicators:
5					☐ Rapid Test for Hydro	phytic Vegetation
6					■ Dominance Test is >	50%
7					➤ Prevalence Index is:	
8						ations ¹ (Provide supporting or on a separate sheet)
9					☐ Wetland Non-Vascul	,
10	-				☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
11	55		al Cover			and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)				-	be present, unless distur	bed or problematic.
1 2		-		-	Hydrophytic	
	0	= Tot	al Cover	_	Vegetation Present? Yes	No □
% Bare Ground in Herb Stratum 45						
Remarks: Hydrophytic vegetation criterion observ	ved throug	gh do	minance	test	indicator.	

Profile Des	 Matrix			Red	dox Featur	es				
(inches)	Color (moist)	%	Colc	or (moist)	%	Type ¹	Loc ²	Textur		Remarks
0 - 16	10YR3/2	100						SaLo)	
16 - 30	5Y 4/3	99	10	YR 4/4	1	CS	M, PL			
		_						-		
										
		<u> </u>								
1									21	
	Concentration, D=D Indicators: (Appl						ed Sand Gr			cation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils ³ :
=		icable to				icu.,				•
☐ Histosol	pipedon (A2)			Sandy Redox Stripped Matri						ı Muck (A10) Parent Material (TF2)
	istic (A3)			Loamy Mucky	. ,	1) (excep	MLRA 1)			Shallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Gleyed			,		-	er (Explain in Remarks)
	d Below Dark Surfa	ice (A11)		Depleted Matı		,			-	,
☐ Thick Da	ark Surface (A12)			Redox Dark S	urface (F6)		³ lı	ndicato	ors of hydrophytic vegetation and
	/lucky Mineral (S1)			Depleted Dark	s Surface (F7)				nd hydrology must be present,
	Sleyed Matrix (S4)			Redox Depres	ssions (F8))			unles	s disturbed or problematic.
	Layer (if present)									
Type:										
Depth (in	nches):			•				Hydr	ic Soil	Present? Yes ☐ No ☒
Remarks:										
No hydric	soils indicators	observ	ed.							
•										
HYDROLO	OGY									
Wetland Hy	drology Indicator	s:								
Primary Indi	cators (minimum o	f one req	uired; ch	eck all that ap	ply)				Secor	ndary Indicators (2 or more required)
☐ Surface	Water (A1)			☐ Water-St	ained Leav	ves (B9) (e	xcept MLR	RA	□ w	ater-Stained Leaves (B9) (MLRA 1, 2,
★ High Wa	ater Table (A2)				4A, and 4I		·			4A, and 4B)
★ Saturation	on (A3)			☐ Salt Crus	st (B11)	•			☐ Di	rainage Patterns (B10)
☐ Water M	larks (B1)			☐ Aquatic I	nvertebrate	es (B13)			☐ Di	ry-Season Water Table (C2)
☐ Sedimer	nt Deposits (B2)			☐ Hydroge					☐ Sa	aturation Visible on Aerial Imagery (C9)
☐ Drift Dep	posits (B3)			Oxidized	Rhizosphe	eres along	Living Root	ts (C3)		eomorphic Position (D2)
☐ Algal Ma	at or Crust (B4)			☐ Presence	e of Reduc	ed Iron (C	1)		☐ SI	nallow Aquitard (D3)
☐ Iron Dan	oosits (B5)			☐ Recent I	ron Reduct	tion in Tille	d Soils (C6))	□ FA	AC-Neutral Test (D5)
☐ Iron Dep	(20)			Churchard.	01	. DI 4 - /D				sized Ant Mounds (DC) (LDD A)
	Soil Cracks (B6)			□ Stunted to	or Stressed	ם Plants (ב	1) (LRR A)		∐ Ra	aised Ant Mounds (D6) (LRR A)
☐ Surface		l Imagery	(B7)		or Stressed xplain in R	•	1) (LRR A)			rost-Heave Hummocks (D7)
☐ Surface	Soil Cracks (B6)					•	1) (LRR A)			
☐ Surface	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca					•	1) (LRR A)			
☐ Surface ☐ Inundati ☐ Sparsely Field Obser	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca				xplain in R	•	1) (LRR A)			
☐ Surface ☐ Inundati ☐ Sparsely Field Obser	Soil Cracks (B6) on Visible on Aeria y Vegetated Concarvations: ter Present?	ve Surfac	No 🔀	Other (E	xplain in R es):	•	1) (LRR A)			
☐ Surface ☐ Inundati ☐ Sparsely Field Obser Surface War	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	ve Surfac Yes ☐ Yes ☒	No 🔀	Other (E. Depth (inch	es):es): 9	•			☐ Fr	ost-Heave Hummocks (D7)
Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation F (includes ca	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? pillary fringe)	ve Surface Yes ☐ Yes ☒ Yes ☒	No 🔀 No 🗆	Depth (inch	es): es): es): 6	emarks)	Wetla	and Hyd	☐ Fr	ost-Heave Hummocks (D7)
Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation F (includes ca	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present?	ve Surface Yes ☐ Yes ☒ Yes ☒	No 🔀 No 🗆	Depth (inch	es): es): es): 6	emarks)	Wetla	and Hyd	☐ Fr	ost-Heave Hummocks (D7)
Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation F (includes ca	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? pillary fringe)	ve Surface Yes ☐ Yes ☒ Yes ☒	No 🔀 No 🗆	Depth (inch	es): es): es): 6	emarks)	Wetla	and Hyd	☐ Fr	ost-Heave Hummocks (D7)
Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation F (includes ca	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? pillary fringe)	ve Surface Yes ☐ Yes ☒ Yes ☒	No 🔀 No 🗆	Depth (inch	es): es): es): 6	emarks)	Wetla	and Hyd	☐ Fr	ost-Heave Hummocks (D7)
Surface Inundati Sparsely Field Obser Surface War Water Table Saturation F (includes ca Describe Re Remarks: Wetland h	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? Present? pillary fringe) ecorded Data (strea	Yes Yes X Yes X mm gauge	No 🗵 No 🗆 No 🗆 , monitor	Depth (inch Depth (inch Depth (inch ing well, aeria	es):es): _6 al photos, p	emarks)	Wetla spections),	and Hydia if availa	Fring Frings	y Present? Yes □ No ☒ Dwing season at time of
Surface Inundati Sparsely Field Obser Surface War Water Table Saturation F (includes ca Describe Re Remarks: Wetland h monitoring	Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? Present? pillary fringe) ecorded Data (strea	Yes Yes Yes Yes Im gauge	No 🗵 No 🗆 No one (B8)	Depth (inch Depth (inch Depth (inch ing well, aeria arrough A2 a 2018. Moi	es):es):es): _6 al photos, photos, photoring v	orevious in	Wetlaspections),	and Hyd if availa uring no	Free Free Free Free Free Free Free Free	y Present? Yes □ No ☒ Dwing season at time of cation MP-11 indicated

Project/Site: 1655.0001 / Schoultes Property		City/C	county:	Marysv	ille / Snohomish	Samp	ling Date: 03/0	01/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA			
Investigator(s): Richard Peel, Emily Swaim			s	Section, To	wnship, Range: 28, 3	31, 05N		
Landform (hillslope, terrace, etc.): Valley Floor		_Loca	al relief	(concave,	convex, none): Conc	cave	Slope (%	%): <u>0</u>
Subregion (LRR): A-2	_ _{Lat:} 48.	1385	523	•	Long: -122.1659	3010	Datum: V	VGS 84
Soil Map Unit Name: Norma Ioam					NWI classi			
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remark			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed	d?	Are "No	ormal Circumstances" p	present?	Yes ☒ No ☐]
Are Vegetation, Soil, or Hydrology natu	-			(If neede	ed, explain any answer	rs in Rema	rks.)	
SUMMARY OF FINDINGS – Attach site map				point lo	ocations, transec	ts, impo	rtant featu	res, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				Sampled		N. SZ		
Wetland Hydrology Present? Yes ☐ No 🗵			withii	n a Wetlan	id? Yes ∐	No 🗵		
Remarks: Not all three wetland criteria observed, only h monitoring study.	nydrophytic	veget	tation]	present. N	on-wetland hydrolog	y confirme	ed by groundw	rater
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			Indicator	Dominance Test wo			
1					Number of Dominant That Are OBL, FACV		1	_ (A)
2.								_ (' ')
3					Total Number of Dor Species Across All S		1	_ (B)
4					Percent of Dominant	Species		_ 、,
Condition/Charle Charles are (Dich sings 45 ft)	0	= To	otal Co	ver	That Are OBL, FACV		100%	_ (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft)					Prevalence Index w	orksheet:		
1 2					Total % Cover o			
3					,		x 1 = 0	
4.					FACW species 0			
5							x 3 = <u>225</u>	
	0	= To	otal Co	ver	FACU species 0	;	x 4 = <u>0</u>	
Herb Stratum (Plot size: 5 ft)	75	Vo	c	EΛC	· _	>	<u>-</u>	
1. Holcus lanatus					Column Totals: 75	(/	A) <u>225</u>	(B)
2 3					Prevalence Ind	lex = B/A =	= 3	
4					Hydrophytic Vegeta		•	<u>-</u>
5					☐ Rapid Test for H			
6.					■ Dominance Test	is >50%		
7.					➤ Prevalence Inde	x is ≤3.0¹		
8.					☐ Morphological Ad			
9							a separate shee	et)
10					☐ Wetland Non-Va			lain)
11					☐ Problematic Hyd Indicators of hydric			,
Woody Vine Stratum (Plot size: 30 ft)	75	= To	otal Co	over	be present, unless d			y must
1					Hydrophytic			
2					Vegetation	v 🖘 -		
% Bare Ground in Herb Stratum 25	0	= To	otal Co	over	Present?	Yes ⊠ N	10 🗆	
	1.41							
Remarks: Hydrophytic vegetation criterion observ	vea tnrou	yn ac	Jinina	ance test	indicator.			

Depth	Matrix	0/			dox Feature		. 2	- .			_		
(<u>inches)</u> 0 - 8	Color (moist) 10YR 3/2	<u>%</u> 100	<u>C010</u>	r (moist)	%	Type ¹	Loc ²	SaLo			Re	<u>emarks</u>	
	-			0/4									
8 - 30	10YR 3/4	70	5yr	3/4	30	<u>CS</u>	<u>M</u>	Sano	<u></u>				
	-												
	oncentration, D=D						ed Sand Gr					ELining, N	
ydric Soil	Indicators: (Appl	icable to	all LRR	s, unless oth	erwise no	ted.)		In	dicato	rs for P	roblem	atic Hydi	ric Soils³:
Histosol	, ,			Sandy Redox						Muck (,		
	oipedon (A2)			Stripped Matri	. ,					Parent N		,	
	stic (A3)			oamy Mucky			MLRA 1)		-			Surface (T	F12)
	en Sulfide (A4)	(4.4.4)		oamy Gleyed		2)			Othe	r (Expla	in in Re	marks)	
	d Below Dark Surfa	ice (A11)		Depleted Matr				31	adie-+-	ro of le	المراجع من المراجع	0.1100-1-1	ion on d
_	ark Surface (A12)			Redox Dark S	•	•		٩Ir		-		c vegetat	
-	Mucky Mineral (S1) Bleyed Matrix (S4)			Depleted Dark Redox Depres		-7)				-		ust be pre roblemati	
	Layer (if present):	•		redox Depies	5510115 (1-0)				uilles	s uistuit	bed of p	TODICITIALI	<u>. </u>
Type:													
· · ·	ches):			•				Hydri	ic Sail	Presen	+2 V	es ⊟ No	o 🗵
	/							пуин	C SOII	Fresen	ir it	:2 IA	
	soils indicators	observ	ed.										
o hydric	OGY		ed.										
o hydric	IGY drology Indicator	s:							0			(0,	
o hydric YDROLO Vetland Hy rimary Indi	OGY drology Indicator cators (minimum o	s:				(00)							e required)
O hydric /DROLC /etland Hy rimary Indi] Surface	OGY drology Indicator cators (minimum o Water (A1)	s:		☐ Water-St	ained Leav		xcept MLR	RA		ater-Sta	ined Le		re required)
O hydric OROLO Vetland Hy rimary Indi Surface High Wa	ogy drology Indicator cators (minimum o Water (A1) ater Table (A2)	s:		☐ Water-St	ained Leav		xcept MLR	RA	□ W	ater-Sta 4A, an	ined Le	aves (B9)	
O hydric O POPOLO O Vetland Hy rimary Indi O Surface High Wa Saturation	ody drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	s:		☐ Water-St 1, 2,	ained Leav 4A, and 4B st (B11)	3)	xcept MLR	RA	□ W	ater-Sta 4A, an ainage l	ined Le I d 4B) Patterns	aves (B9)	(MLRA 1, 2
/DROLO /etland Hy rimary Indi Surface High Wa Saturatio Water M	drology Indicator cators (minimum or Water (A1) ater Table (A2) on (A3) larks (B1)	s:		☐ Water-St 1, 2, 4 ☐ Salt Crus ☐ Aquatic I	ained Leav 4A, and 4E st (B11) nvertebrate	B) es (B13)	xcept MLR		W	ater-Sta 4A , an rainage I	ined Le I d 4B) Patterns on Wate	aves (B9) s (B10) er Table (0	(MLRA 1, 2
/DROLO /etland Hy rimary Indi Surface High Wa Saturation Water M Sedimer	edrology Indicator cators (minimum or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	s:		☐ Water-St 1, 2, 4 ☐ Salt Crus ☐ Aquatic I ☐ Hydroger	ained Leav 4A, and 4E st (B11) nvertebrate n Sulfide C	es (B13) dor (C1)			☐ W ☐ Di ☐ Di ☐ Si	ater-Sta 4A, an rainage I	ined Le od 4B) Patterns on Wate Visible	aves (B9) s (B10) er Table (0	(MLRA 1, 2
/DROLO /etland Hy rimary Indi Surface High Wa Saturati Water M Sedimer Drift Dep	oddy drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) and Deposits (B2) cosits (B3)	s:		Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized	ained Leaven AA, and 4E at (B11) and the contraction of the contractio	es (B13) dor (C1) eres along	Living Roo		☐ W ☐ Di ☐ Di ☐ Si ☐ Gi	ater-Sta 4A, an rainage I ry-Seaso aturation	ined Le d 4B) Patterns on Wate Visible nic Posi	aves (B9) s (B10) er Table (0 on Aerial tion (D2)	(MLRA 1, 2
O hydric O hydr	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4)	s:		Water-St 1, 2, 4 Salt Crus Aquatic I Hydrogel Oxidized Presence	ained Leaver 4A, and 4E of (B11) envertebrate on Sulfide Control Rhizosphere of Reduce	es (B13) dor (C1) eres along ed Iron (C4	Living Roo	ts (C3)	W Di Di Sa Gi	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph	ined Le Id 4B) Patterns on Wate Visible nic Posi quitard	aves (B9) s (B10) r Table (0 on Aerial tion (D2) (D3)	(MLRA 1, 2
/DROLO /etland Hy rimary Indi Surface Saturati Water M Sedimer Drift Dep Algal Ma	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	s:		Water-St 1, 2, 4 Salt Crus Aquatic I Hydroget Oxidized Presence Recent Ir	ained Leav 4A, and 4B of (B11) nvertebrate n Sulfide O Rhizosphe e of Reduct ron Reduct	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille	Living Root) d Soils (C6)	ts (C3)	W Di Di Si Gi Si F#	ater-Sta 4A, an rainage I ry-Seaso aturation eomorph nallow A	ined Le d 4B) Patterns on Wate Visible nic Posi quitard ral Test	aves (B9) s (B10) r Table (Con Aerial tion (D2) (D3) (D5)	(MLRA 1, 2 C2) Imagery (C
/DROLO /etland Hy rimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicator cators (minimum or Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	s: f one req	uired; che	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ained Leav 4A, and 4B at (B11) nvertebrate in Sulfide O Rhizosphe e of Reduct on Reduct or Stressec	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille I Plants (D	Living Roo	ts (C3)	W Di Di Sa Gi Si F#	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut	ined Le Id 4B) Patterns on Wate Visible hic Posi quitard ral Test	aves (B9) s (B10) er Table (Con Aerial tion (D2) (D3) (D5) ds (D6) (L	(MLRA 1, 2 C2) Imagery (C
/DROLO /etland Hy rimary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	drology Indicator cators (minimum or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	s: f one requ	uired; che	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ained Leav 4A, and 4B of (B11) nvertebrate n Sulfide O Rhizosphe e of Reduct ron Reduct	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille I Plants (D	Living Root) d Soils (C6)	ts (C3)	W Di Di Sa Gi Si F#	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut	ined Le Id 4B) Patterns on Wate Visible hic Posi quitard ral Test	aves (B9) s (B10) r Table (Con Aerial tion (D2) (D3) (D5)	(MLRA 1, 2 C2) Imagery (C
/DROLO /etland Hy rimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	or vegetated Conca	s: f one requ	uired; che	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ained Leav 4A, and 4B at (B11) nvertebrate in Sulfide O Rhizosphe e of Reduct on Reduct or Stressec	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille I Plants (D	Living Root) d Soils (C6)	ts (C3)	W Di Di Sa Gi Si F#	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut	ined Le Id 4B) Patterns on Wate Visible hic Posi quitard ral Test	aves (B9) s (B10) er Table (Con Aerial tion (D2) (D3) (D5) ds (D6) (L	(MLRA 1, 2 C2) Imagery (C
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/DROLO /etland Hy rimary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely ield Observation	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) aters (B1) at or Crust (B4) cosits (B3) at or Crust (B4) soil Cracks (B6) on Visible on Aeria v Vegetated Concarvations:	s: f one requirements I Imagery ve Surface	uired; che (B7) ce (B8) No ⊠	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leav 4A, and 4B st (B11) nvertebrate n Sulfide O Rhizosphe e of Reduct on Reduct or Stressed xplain in Re es):	es (B13) dor (C1) eres along ed Iron (C4) ion in Tille I Plants (Demarks)	Living Root) d Soils (C6)	ts (C3)	W Di Di Sa Gi Si F#	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut	ined Le Id 4B) Patterns on Wate Visible hic Posi quitard ral Test	aves (B9) s (B10) er Table (Con Aerial tion (D2) (D3) (D5) ds (D6) (L	(MLRA 1, 2 C2) Imagery (C
Vetland Hy Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely ield Observator	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) aters (B1) at or Crust (B4) posits (B5) soil Cracks (B6) on Visible on Aeria v Vegetated Concarvations: ter Present?	s: f one requirements I Imagery ve Surface Yes Yes Yes X	uired; che (B7) ee (B8) No ⊠ No □	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav 4A, and 4B st (B11) nvertebrate n Sulfide O Rhizosphe e of Reduct on Reduct or Stressed xplain in Re es):	es (B13) dor (C1) eres along ed Iron (C4) ion in Tille I Plants (Demarks)	Living Root d Soils (C6) 1) (LRR A)	ts (C3)	W	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut aised An ost-Hea	ined Le id 4B) Patterns on Wate Visible nic Posi quitard ral Test it Moun ve Hum	aves (B9) s (B10) er Table (C on Aerial tion (D2) (D3) (D5) ds (D6) (L emocks (D	(MLRA 1, 2 C2) Imagery (C
YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Iron Dep Iron Dep Inundati Sparsely Field Obset Surface Water Table Saturation F	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) ater Table (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria v Vegetated Concarvations: ter Present?	s: f one requirements I Imagery ve Surface	uired; che (B7) ce (B8) No ⊠	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leav 4A, and 4B st (B11) nvertebrate n Sulfide O Rhizosphe e of Reduct on Reduct or Stressed xplain in Re es):	es (B13) dor (C1) eres along ed Iron (C4) ion in Tille I Plants (Demarks)	Living Root d Soils (C6) 1) (LRR A)	ts (C3)	W	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut aised An ost-Hea	ined Le id 4B) Patterns on Wate Visible nic Posi quitard ral Test it Moun ve Hum	aves (B9) s (B10) er Table (C on Aerial tion (D2) (D3) (D5) ds (D6) (L emocks (D	(MLRA 1, 2 C2) Imagery (C
YDROLO Vetland Hy Primary Indi Surface High Wa Saturatio High Wa Staturatio Surface Inundati Sparsely Field Obser Surface Water Table Staturation Fincludes ca	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) aters (B1) at or Crust (B4) posits (B5) soil Cracks (B6) on Visible on Aeria v Vegetated Concarvations: ter Present?	s: f one require I Imagery ve Surface Yes □ Yes ☒ Yes ☒ Yes ☒	uired; che (B7) te (B8) No 🖾 No 🗆	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav 4A, and 4B st (B11) nvertebrate in Sulfide O Rhizosphe e of Reduct or Reduct or Stressed explain in Re es): es): 4	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille I Plants (D emarks)	Living Root Soils (C6) Control (CRR A)	ts (C3)) and Hyd	W Di Si Gi Si F/F Fr	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut aised An ost-Hea	ined Le id 4B) Patterns on Wate Visible nic Posi quitard ral Test it Moun ve Hum	aves (B9) s (B10) er Table (C on Aerial tion (D2) (D3) (D5) ds (D6) (L emocks (D	(MLRA 1, 2 C2) Imagery (C
YDROLO Vetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Inon Dep Inon Dep Inon Dep Inon Dep Surface Inundatio Sparsely Field Observation Forbudes ca	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) ater Section (B4) at or Crust (B4) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concarvations: ter Present? Present? Present? Present? Present?	s: f one require I Imagery ve Surface Yes □ Yes ☒ Yes ☒ Yes ☒	uired; che (B7) te (B8) No 🖾 No 🗆	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav 4A, and 4B st (B11) nvertebrate in Sulfide O Rhizosphe e of Reduct or Reduct or Stressed explain in Re es): es): 4	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille I Plants (D emarks)	Living Root Soils (C6) Control (CRR A)	ts (C3)) and Hyd	W Di Si Gi Si F/F Fr	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut aised An ost-Hea	ined Le id 4B) Patterns on Wate Visible nic Posi quitard ral Test it Moun ve Hum	aves (B9) s (B10) er Table (C on Aerial tion (D2) (D3) (D5) ds (D6) (L emocks (D	(MLRA 1, 2 C2) Imagery (C
/DROLO /etland Hy rimary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely ield Observator Table aturation Fincludes ca	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) ater Section (B4) at or Crust (B4) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concarvations: ter Present? Present? Present? Present? Present?	s: f one require I Imagery ve Surface Yes □ Yes ☒ Yes ☒ Yes ☒	uired; che (B7) te (B8) No 🖾 No 🗆	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav 4A, and 4B st (B11) nvertebrate in Sulfide O Rhizosphe e of Reduct or Reduct or Stressed explain in Re es): es): 4	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille I Plants (D emarks)	Living Root Soils (C6) Control (CRR A)	ts (C3)) and Hyd	W Di Si Gi Si F/F Fr	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph nallow A AC-Neut aised An ost-Hea	ined Le id 4B) Patterns on Wate Visible nic Posi quitard ral Test it Moun ve Hum	aves (B9) s (B10) er Table (C on Aerial tion (D2) (D3) (D5) ds (D6) (L emocks (D	(MLRA 1, 2 C2) Imagery (C
/DROLO /etland Hy rimary Indi Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely /etland Observation Findudes carescribe Ref	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) ater Section (B4) at or Crust (B4) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concarvations: ter Present? Present? Present? Present? Present?	s: f one required in the second secon	uired; che (B7) te (B8) No No No nonitor	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav 4A, and 4B at (B11) nvertebrate in Sulfide O Rhizosphe e of Reduct or Reduct or Stressed explain in Re es):	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille I Plants (Demarks) erevious inservious inserv	Living Root Soils (C6) Cators du	and Hyd	☐ W ☐ Di ☐ Si ☐ Gi ☐ St ☐ Fr ☐ Ri ☐ Fr	ater-Sta 4A, an rainage I ry-Seasc aturation eomorph hallow Ar AC-Neut aised An ost-Hear	ined Le id 4B) Patterns on Wate Visible nic Posi quitard ral Test it Moun ve Hum	aves (B9) s (B10) er Table (C on Aerial tion (D2) (D3) (D5) ds (D6) (L mocks (D	(MLRA 1, 2 C2) Imagery (C LRR A) (7)

Project/Site: 1655.0001 / Schoultes Property	(City/Co	ounty	: Marysv	rille / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Sampling Point: DP-13
					ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local	l relie	f (concave,	convex, none): None	Slope (%): 0
Subregion (LRR): A-2	Lat: _48.	.1396	379		Long: -122.1658310	Datum: WGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Ye	s 🗷	No ☐ (I	f no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed	?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?		(If neede	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samı	pling	g point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵						
Hydric Soil Present? Yes ☐ No 🗵				e Sampled		_
Wetland Hydrology Present? Yes ☐ No 🗵			withi	n a Wetlar	nd? Yes ☐ No) 🛚
Remarks:		<u> </u>				
No wetland criteria observed. Nor	ı-wetland	d hyo	drol	ogy con	firmed by groundw	ater monitoring study.
VEGETATION – Use scientific names of plan	ts.					
T 0 (D	Absolute				Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dominant Sports That Are OBL, FACW, or	
2					Total Number of Domina	
3					Species Across All Strata	a: <u>2</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0			over	Percent of Dominant Spe That Are OBL, FACW, or	
1					Prevalence Index work	sheet:
2.					Total % Cover of:	
3.						x 1 = 0
4.						x 2 = 0
5					FAC species 25	x 3 = <u>75</u>
	0	= To	tal Co	over	FACU species 0	x 4 = <u>0</u>
Herb Stratum (Plot size: <u>5 ft</u>)	0.5	V -		- 40	UPL species 10	x 5 = <u>50</u>
1. Holcus lanatus	25			FAC	Column Totals: 35	(A) <u>125</u> (B)
2. Geranium molle	10	Yes		<u>UPL</u>	Prevalence Index	= B/A = 3.57
3					Hydrophytic Vegetation	
5					☐ Rapid Test for Hydro	
6.					☐ Dominance Test is >	
7					☐ Prevalence Index is:	≤3.0 ¹
8.						ations ¹ (Provide supporting
9						or on a separate sheet)
10					☐ Wetland Non-Vascul	
11					- , .	nytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	35	= To	tal Co	over	be present, unless distur	and wetland hydrology must bed or problematic.
1					Hydrophytic	
2					Vegetation	
% Bare Ground in Herb Stratum 65	0	= To	tal Co	over	Present? Yes	□ No ⊠
Remarks:	la a a a a a a					
No hydrophytic vegetation indicators o	pserved.					

Depth	Matrix			Redox Features	. 2	- .		Б	
(inches) 0 - 9	Color (moist) 10YR 3/2	<u>%</u> 100		r (moist) % Type ¹	Loc ²	SaLo		Remarks	
	-							0	
9 - 12	10YR 3/4	100				Sand		Coarse	
2 - 30	10YR3/3	100				Sand	<u> </u>	Very gravelly compacte	ed coarse
				uced Matrix, CS=Covered or Coates, unless otherwise noted.)	ed Sand Gr			ntion: PL=Pore Lining, M=Ms for Problematic Hydric S	
Histosol	, ,			Sandy Redox (S5)] 2 cm l	Muck (A10)	
	oipedon (A2)			Stripped Matrix (S6)				arent Material (TF2)	
Black His	, ,			_oamy Mucky Mineral (F1) (excep t	MLRA 1)		-	Shallow Dark Surface (TF12	2)
	n Sulfide (A4)	(* 4 4)		Loamy Gleyed Matrix (F2)] Other	(Explain in Remarks)	
	d Below Dark Surfa	ice (A11)		Depleted Matrix (F3)		31	!! 4	£	
_	ark Surface (A12) lucky Mineral (S1)			Redox Dark Surface (F6) Depleted Dark Surface (F7)		٩In		s of hydrophytic vegetation d hydrology must be preser	
-	Gleyed Matrix (S4)			Redox Depressions (F8)				disturbed or problematic.	it,
	Layer (if present):	•	<u> </u>	todox Bopressions (1 0)			unicoo	dictarbed of problematic.	
Type:									
• • • • • • • • • • • • • • • • • • • •	ches):					Hydri	ic Sail E	Present? Yes ☐ No ⊠	ก
emarks:	,					пушт	ic 30ii r	Tesent: Tes NO M	<u> </u>
o nyaric :	soils indicators	observ	ed.						
YDROLO	GY		ed.						
YDROLO	GY drology Indicator	s:		eck all that apply)			Second	dary Indicators (2 or more re	equired)
PROLO Vetland Hydrimary Indic	OGY drology Indicator cators (minimum o	s:			xcept MLR	 		dary Indicators (2 or more reter-Stained Leaves (B9) (M	
/DROLO /etland Hydrimary India] Surface \	OGY drology Indicator cators (minimum o	s:		☐ Water-Stained Leaves (B9) (e	xcept MLR	RA	☐ Wa	ter-Stained Leaves (B9) (M	
/DROLO /etland Hyorimary India] Surface \(\)] High Wa	drology Indicator cators (minimum o Water (A1) ater Table (A2)	s:		☐ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B)	xcept MLR		☐ Wa	ter-Stained Leaves (B9) (M 4A, and 4B)	
/DROLO /etland Hydrimary India Surface Name High Water Saturation	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	s:		 Water-Stained Leaves (B9) (e1, 2, 4A, and 4B) Salt Crust (B11)	xcept MLR		☐ Wa	ter-Stained Leaves (B9) (M 4A, and 4B) inage Patterns (B10)	
/DROLO /etland Hydrimary Indice Surface Name High Water Mail Wat	drology Indicator cators (minimum or Water (A1) hter Table (A2) on (A3) larks (B1)	s:		 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) 	xcept MLR		☐ Wa	ter-Stained Leaves (B9) (M 4A, and 4B) inage Patterns (B10) -Season Water Table (C2)	LRA 1, 2
/DROLO /etland Hydrimary Indic] Surface Note that the second sec	drology Indicator cators (minimum or Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2)	s:		 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) 			☐ Wa	ter-Stained Leaves (B9) (M 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Im	LRA 1, 2
YDROLO Yetland Hydrimary India Surface V High Wa Saturatio Water Mater M	drology Indicator cators (minimum or Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2)	s:		 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along 	Living Root		☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Gee	ter-Stained Leaves (B9) (M 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Importance (D2)	LRA 1, 2
YDROLO Yetland Hydrimary India Surface V High Wa Saturatio Water Ma Sedimen Drift Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4)	s:		 Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4) 	Living Root	ts (C3)	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Gee	ter-Stained Leaves (B9) (M 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Improprise Position (D2) allow Aquitard (D3)	LRA 1, 2
"DROLO "etland Hydrimary Indic "Surface V High Wa Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	s:		Water-Stained Leaves (B9) (e	Living Roof I) d Soils (C6)	ts (C3)	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Gee ☐ Sha ☐ FAc	ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imporphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	LRA 1 , 2
PROLO Petland Hydrimary India Surface N High War Saturatic Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S	drology Indicator cators (minimum or Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	s: f one req	uired; che	 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along □ Presence of Reduced Iron (C4 □ Recent Iron Reduction in Tille □ Stunted or Stressed Plants (D 	Living Roof I) d Soils (C6)	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Important (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR	LRA 1, 2
"DROLO "etland Hydrimary India"] Surface Nater Mail] Saturation] Water Mail] Sediment] Drift Dept] Algal Mail] Iron Dept] Surface Saturation	drology Indicator cators (minimum or Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	s: f one requ	uired; che	Water-Stained Leaves (B9) (e	Living Roof I) d Soils (C6)	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imporphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	LRA 1 , 2
/DROLO /etland Hydrimary India Surface \(\) High Wa Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface \(\) Surface \(\) Inundatio Sparsely	drology Indicator cators (minimum of Water (A1) after Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca	s: f one requ	uired; che	 □ Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along □ Presence of Reduced Iron (C4 □ Recent Iron Reduction in Tille □ Stunted or Stressed Plants (D 	Living Roof I) d Soils (C6)	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Important (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR	LRA 1, 2
/DROLO /etland Hydrimary India Surface Valler Mail Saturation Water Mail Sedimen Drift Dep Algal Mail Iron Dep Surface Saturation Inundation Sparsely ideld Observirus Inundation Inundation Sparsely ideld Observirus Inundation I	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria (Vegetated Concarvations:	s: f one requ I Imagery ve Surfac	uired; che	Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C² Recent Iron Reduction in Tille Stunted or Stressed Plants (D	Living Roof I) d Soils (C6)	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Important (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR	LRA 1, 2
rDROLO retland Hydrimary India Surface N High War Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely reld Observariace Water	drology Indicator cators (minimum or water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca	s: f one requirements I Imagery ve Surface	uired; che	Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C₄ Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks) Depth (inches):	Living Roof I) d Soils (C6)	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Important (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR	LRA 1, 2
VDROLO Vetland Hydrimary India Surface V High Wat Saturatia Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatia Sparsely ield Obser vater Table	drology Indicator cators (minimum or water (A1) ter Table (A2) on (A3) tarks (B1) th Deposits (B2) tosits (B3) at or Crust (B4) tosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Conca	s: f one requ I Imagery ve Surfac	uired; che	Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C² Recent Iron Reduction in Tille Stunted or Stressed Plants (D	Living Roof l) d Soils (C6) 1) (LRR A)	ts (C3)	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Gee ☐ Sha ☐ FA(ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Important (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR	LRA 1, 2
YDROLO Vetland Hyd Primary India Surface V High Wat Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatic Sparsely Field Obser Surface Wat Vater Table Saturation Princludes cap	drology Indicator cators (minimum or water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca reations: ter Present? Present?	s: f one required in the second seco	uired; che	Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks) Depth (inches): Depth (inches):	Living Roof Soils (C6) Control Wetla	ts (C3)) and Hyd	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Gee ☐ Sha ☐ FAG ☐ Rai ☐ Fro	ter-Stained Leaves (B9) (M 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Importance (D3) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR st-Heave Hummocks (D7)	LRA 1, 2 agery (C
YDROLO Vetland Hyd Primary Indid Surface V High Wa Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Obser Surface Water Table Saturation Princludes cap Describe Rec	drology Indicator cators (minimum or water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca reations: ter Present? Present?	s: f one required in the second seco	uired; che	Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	Living Roof Soils (C6) Control Wetla	ts (C3)) and Hyd	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Gee ☐ Sha ☐ FAG ☐ Rai ☐ Fro	ter-Stained Leaves (B9) (M 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Importance (D3) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR st-Heave Hummocks (D7)	LRA 1, 2 agery (C
Vortland Hydrimary India Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely ield Observator Table saturation Procludes cap Describe Rec	drology Indicator cators (minimum or water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Conca reations: are Present? Present? Present? pillary fringe) corded Data (streat	s: f one required from the second se	uired; che	Water-Stained Leaves (B9) (e 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	Living Roof Soils (C6) Control Wetland Spections),	ts (C3)) and Hyd if availat	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Gee ☐ Sha ☐ FAG ☐ Fro	ter-Stained Leaves (B9) (M4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Importance (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR st-Heave Hummocks (D7)	agery (C

Project/Site: 1655.0001 / Schoultes Property	City/County: Marysville / Snohomish					Samplir	Sampling Date: 03/01/2018				
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Samplir					
Investigator(s): Emily Swaim, Richard Peel			s	ection, To	wnship, Range: 28, 3	1, 05N					
Landform (hillslope, terrace, etc.): Valley Floor		_Loca	l relief	(concave,	convex, none): Conc	ave	Slope (%	6): <u>0</u>			
Subregion (LRR): A-2	Lat: 48.	1397	'50		Long: -122.16685	359	Natum: W	/GS 84			
Soil Map Unit Name: Custer fine sandy loam					NWI classif						
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 sign	nificantly dis	turbec	1?	Are "No	rmal Circumstances" p	resent? Ye	es 🗷 No 🗌				
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	•	(If neede	ed, explain any answers	s in Remark	is.)				
SUMMARY OF FINDINGS – Attach site map				point lo	ocations, transect	ts, impor	tant featur	es, etc.			
Hydrophytic Vegetation Present? Yes ☒ No ☐											
Hydric Soil Present? Yes ☐ No 🗵	Is the Sample			-							
Wetland Hydrology Present? Yes ☐ No 🗵			within	ı a Wetlan	d? Yes □	No 🔀					
Remarks: Not all three wetland criteria observed, only h monitoring study.	ydrophytic	veget	ation p	oresent. N	on-wetland hydrology	confirmed	by groundwa	ater			
VEGETATION – Use scientific names of plan	ts.										
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			ndicator	Dominance Test wo						
1		-			Number of Dominant That Are OBL, FACW		1	(A)			
2.								- ()			
3					Total Number of Dom Species Across All St		1	_ (B)			
4					Percent of Dominant	Snecies					
Capling/Chrub Stratum (Diet size: 45 ft)	0	= To	otal Cov	ver	That Are OBL, FACW		100%	_ (A/B)			
Sapling/Shrub Stratum (Plot size: 15 ft) 1					Prevalence Index we	orksheet:					
2.					Total % Cover of		Multiply by:				
3.							1 = 0				
4					FACW species 0						
5							3 = <u>180</u>				
	0	= To	otal Cov	ver	FACU species 0						
Herb Stratum (Plot size: <u>5 ft)</u> 1. Holcus lanatus	60	Ye	S	FAC		x	·				
2.			<u> </u>	1710	Column Totals: 60	(A)) 180	(B)			
3.		·			Prevalence Inde	ex = B/A =	3				
4					Hydrophytic Vegeta	tion Indica	tors:				
5.					☐ Rapid Test for Hy	drophytic V	egetation				
6					▼ Dominance Test	is >50%					
7					▼ Prevalence Index	is ≤3.0¹					
8					☐ Morphological Ad						
9					data in Rema ☐ Wetland Non-Vas		•	:t)			
10					☐ Problematic Hydr			ain)			
11					¹ Indicators of hydric s			,			
Woody Vine Stratum (Plot size: 30 ft)	60	= Tc	otal Cov	ver	be present, unless di						
1					Hydrophytic						
2					Vegetation	. = :	_				
% Bare Ground in Herb Stratum 40	0	= Tc	otal Cov	ver	Present?	∕es⊠ No	,				
<u> </u>	حالا ام مر	ا مارم	!	mas 4	indiant						
Remarks: Hydrophytic vegetation criterion observation	vea inrou	yn ac	חווזוכ	nce test	indicator.						

trix. pils³:
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RA 1, 2,
RA 1, 2,
)

Project/Site: 1655.0001 / Schoultes Property	(City/C	ounty: N	/larysvi	lle / Snohomish	Sampling Date: 03/01/2018					
Applicant/Owner: Columbia Bank / Rob Draper					State: WA						
					wnship, Range: <u>28, 31,</u>						
Landform (hillslope, terrace, etc.): Valley Floor		Loca	l relief (co	oncave,	convex, none): Concav	e Slope (%): 0					
Subregion (LRR): A-2	_ Lat: <u>48.</u>	1407	'84		Long: -122.1666170	Datum: WGS 84					
Soil Map Unit Name: Custer fine sandy loam					NWI classificat	tion: None					
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)											
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed	1?	Are "Nor	rmal Circumstances" pres	ent? Yes ☒ No ☐					
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	, ((If neede	d, 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 🗵	Is the Sampled Area										
Wetland Hydrology Present? Yes ☐ No 🗵			within a	wetiano	d? Yes ☐ No) X					
Remarks: Not all three wetland criteria observed, hydro	phytic vege	tation	present.	. Non-w	etland hydrology confirm	ned by groundwater					
monitoring study.											
VEGETATION – Use scientific names of plants.											
	Absolute				Dominance Test works	heet:					
Tree Stratum (Plot size: 30 ft) 1	% Cover			tatus_	Number of Dominant Sp That Are OBL, FACW, o						
2					Total Number of Domina						
3					Species Across All Strate	a: <u>1</u> (B)					
4Sapling/Shrub Stratum (Plot size: 15 ft)	0			r	Percent of Dominant Spo That Are OBL, FACW, o						
1					Prevalence Index work	sheet:					
2					Total % Cover of:						
3						x 1 = 0					
4						x 2 = 0					
5						x 3 = <u>270</u>					
Herb Stratum (Plot size: 5 ft)	0	= To	otal Cove	r		x 4 = 0 x 5 = 0					
1. Holcus lanatus	90	Yes	s F	AC		070					
2.					Column Totals. Co	(A) <u>270</u> (B)					
3					Prevalence Index	= B/A = <u>3</u>					
4					Hydrophytic Vegetation	n Indicators:					
5					☐ Rapid Test for Hydro						
6					■ Dominance Test is >	50%					
7					revalence Index is:						
8						tations ¹ (Provide supporting or on a separate sheet)					
9					☐ Wetland Non-Vascul	, ,					
10	-				☐ Problematic Hydroph	nytic Vegetation¹ (Explain)					
11	90		tal Cove			and wetland hydrology must					
Woody Vine Stratum (Plot size: 30 ft)				' <u> </u>	be present, unless distur	bed or problematic.					
1					Hydrophytic						
2	0	= To	tal Cove		Vegetation Present? Yes	■ No ■					
% Bare Ground in Herb Stratum 10											
Remarks: Hydrophytic vegetation criterion observ	ved throu	gh do	ominano	ce test	indicator.						
	•	-									

Depth	Matrix				dox Featu		12	Taretron	_	Damandra	
inches)) - 13	Color (moist) 10YR 3/2	<u>%</u> 98		r (moist) YR 3/6	2	Type ¹	Loc ² PL, M	SaLo		Remarks	
	-										
13 - 16	10Y 5/1	98		YR 5/6	$-\frac{2}{2}$	_ <u>C</u>	PL, M	SiCIL			
16 - 21	10y 5/1	98		YR 5/6	2	CS	M	SaLo		Very coarse	
21 - 30	10YR 5/1	97	10	YR 4/6	3	CS	M	LoSa	<u> </u>	Very coarse	
	oncentration, D=D						ed Sand G			ation: PL=Pore Lining,	
-		iicabie io				otea.)				-	iric solis":
] Histosol	oipedon (A2)			Sandy Redox Stripped Matr						Muck (A10) Parent Material (TF2)	
Black His				_oamy Mucky	. ,	-1) (excep	t MLRA 1)	_		Shallow Dark Surface (TF12)
	n Sulfide (A4)			_oamy Gleye			,		-	(Explain in Remarks)	,
	d Below Dark Surfa	ace (A11)		Depleted Mat		,		_		,	
Thick Da	ark Surface (A12)		☐ F	Redox Dark S	Surface (F6	6)		³In	dicator	s of hydrophytic vegeta	ition and
-	lucky Mineral (S1)			Depleted Dar		. ,				nd hydrology must be p	
	Gleyed Matrix (S4)		F	Redox Depre	ssions (F8)		_	unless	disturbed or problema	tic.
	Layer (if present)	:									
Type:				-							
Depth (inc	ches):							Hydrid	c Soil I	Present? Yes 🗌 🛚 1	lo ⊠
	soils indicators	observ	ed.								
o hydric s			ed.								
o hydric s /DROLO /etland Hyd	GY	's:		eck all that ap	oply)				Secon	dary Indicators (2 or mo	ore required)
O hydric s OROLO Vetland Hydrimary India	GY drology Indicator	's:		eck all that ap □ Water-S		ves (Β9) (ε	except MLF			dary Indicators (2 or mo ater-Stained Leaves (B	
D hydric s DROLO Vetland Hydrimary India Surface N	OGY drology Indicator cators (minimum o	's:		☐ Water-S			except MLF				
D hydric s DROLO Tolor of the second secon	drology Indicator cators (minimum o Water (A1) ater Table (A2)	's:		☐ Water-S	tained Lea 4A, and 4		except MLF		☐ Wa	ater-Stained Leaves (B	
D hydric s TDROLO Tetland Hydrimary Indic Surface N High Wa Saturation	drology Indicator cators (minimum o Water (A1) ater Table (A2)	's:		☐ Water-S 1, 2,	tained Lea 4A, and 4 st (B11)	В)	except MLF	RA	☐ Wa	ater-Stained Leaves (B9	9) (MLRA 1, 2
TDROLO Tetland Hydrimary India Surface V High Wa Saturatio Water Ma	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	's:		☐ Water-Single 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11) Invertebrat	B) tes (B13)	except MLF	RA	☐ Wa	ater-Stained Leaves (B9 4A, and 4B) ainage Patterns (B10)	(C2)
TDROLO Tetland Hydrimary India Surface V High Wa Saturatio Water Ma Sedimen	drology Indicator cators (minimum o Water (A1) hter Table (A2) on (A3) larks (B1)	's:		☐ Water-S 1, 2, ☐ Salt Crus ☐ Aquatic ☐ Hydroge	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (es (B13) Odor (C1)	except MLF	RA	☐ Wa	ater-Stained Leaves (B9 4A, and 4B) ainage Patterns (B10) y-Season Water Table	(C2) (Magery (C9)
TOROLO Tetland Hydrimary India Surface N High Wa Saturatic Water Ma Sedimen Drift Dep	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2)	's:		Water-S 1, 2, Salt Crue Aquatic Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph	es (B13) Odor (C1)	Living Roo	RA	☐ Wa	ater-Stained Leaves (B9 4A, and 4B) ainage Patterns (B10) y-Season Water Table turation Visible on Aeria	(C2) (Magery (C9)
D hydric s TDROLO Tetland Hydrimary Indic Surface N High Wa Saturatic Water M Sedimen Drift Dep Algal Ma	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2)	's:		Water-S 1, 2, Salt Crus Aquatic Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph e of Reduc	tes (B13) Odor (C1) eres along ced Iron (C	Living Roo	ts (C3)	☐ Wa	ater-Stained Leaves (B9 4A, and 4B) ainage Patterns (B10) y-Season Water Table turation Visible on Aeria omorphic Position (D2)	(C2) (Magery (C9)
TOROLO Tetland Hydrimary Indice Surface V High Wa Saturatic Water Ma Sedimen Drift Dep Algal Ma Iron Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	's:		Water-S 1, 2, Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) Investebrat Inve	B) des (B13) Odor (C1) eres along ded Iron (C- tion in Tille d Plants (C	Living Roo 4)	ts (C3)	☐ Wa ☐ Dra ☐ Dry ☐ Sa ☐ Ge ☐ Sh ☐ FA	ater-Stained Leaves (B9 4A, and 4B) ainage Patterns (B10) /-Season Water Table turation Visible on Aeria omorphic Position (D2) allow Aquitard (D3)	(C2) (Magery (C9)
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Project/Site: 1655.0001 / Schoultes Property	(City/Co	ounty: Ma	arysvil	le / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper					_ State: WA	Sampling Point: DP-16
					vnship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief (con	ncave, d	convex, none): Concav	
Subregion (LRR): A-2	_ Lat: <u>48</u> .	.1407	40		Long: -122.165787	27 Datum: WGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI classifica	ation: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Ye	s 🗷 No	☐ (If	no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	ificantly dist	turbed	? A	re "Nor	mal Circumstances" pres	sent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If	neede	d, explain any answers ir	າ Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	oling po	int lo	cations, transects,	, important features, etc
Hydrophytic Vegetation Present? Yes ☒ No ☐					_	
Hydric Soil Present? Yes ☐ No 🗵			Is the San	-		. 🖼
Wetland Hydrology Present? Yes ☐ No 🗵			within a V	vetiano	d? Yes □ N	0 X
Remarks: Not all three wetland criteria observed, hydro	phytic vege	tation	present. N	Non-we	etland hydrology confir	med by groundwater
monitoring study.			•		, 3,	, 0
VEGETATION – Use scientific names of plan	ts.					
	Absolute				Dominance Test works	sheet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			atus_	Number of Dominant Sp That Are OBL, FACW, o	
2					Total Number of Domina	
3				-	Species Across All Strat	ta: <u>1</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0				Percent of Dominant Sp That Are OBL, FACW, o	
1					Prevalence Index work	sheet:
2					Total % Cover of:	Multiply by:
3						x 1 = <u>0</u>
4						x 2 = 0
5						x 3 = 90
Harle Christians (Diet sines 5 ft)	0	= Tot	tal Cover			x 4 = 0
Herb Stratum (Plot size: <u>5 ft)</u> 1. Agrostis capillaris	30	Yes	s FAC	c	UPL species 0	x 5 = 0
2				_	Column Totals: 30	(A) <u>90</u> (B)
3					Prevalence Index	= B/A = <u>3</u>
4					Hydrophytic Vegetatio	n Indicators:
5.				,	☐ Rapid Test for Hydro	ophytic Vegetation
6					■ Dominance Test is >	>50%
7					▼ Prevalence Index is	≤3.0 ¹
8.						tations¹ (Provide supporting s or on a separate sheet)
9					☐ Wetland Non-Vascu	,
10					☐ Problematic Hydrop	hytic Vegetation¹ (Explain)
11	30				¹ Indicators of hydric soil	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)			tal Cover		be present, unless distu	rbed or problematic.
1				-	Hydrophytic	
2	0	= Tot	tal Cover	_	Vegetation Present? Yes	s⊠ No□
% Bare Ground in Herb Stratum 70						
Remarks: Hydrophytic vegetation criterion observ	ved through	gh do	minance	e test	indicator.	
		-				

	N A - 4			Daday Fastons				
Depth (inches)	Matrix Color (moist)	%	Colo	Redox Features or (moist) % Type ¹	Loc ²	Texture	e Remarks	
0 - 13	10YR 3/2	100		70 <u>1 y p c</u>		SaLo		
13 - 30	5y 3/2	100				Sand	Coarse	
10 00	Oy O/L					Cario	<u> </u>	
	-							
								
				luced Matrix, CS=Covered or Coate	d Sand Gr		² Location: PL=Pore Lining, M=Matrix.	
=		icable to		s, unless otherwise noted.)			dicators for Problematic Hydric Soils ³ :	
☐ Histosol	, ,			Sandy Redox (S5)			2 cm Muck (A10)	
☐ Histic Ep	oipedon (A2)			Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except	MI DA 1\		Red Parent Material (TF2) Very Shallow Dark Surface (TF12)	
	n Sulfide (A4)			Loamy Gleyed Matrix (F2)	WILKA I)			
	d Below Dark Surfa	ice (A11)		Depleted Matrix (F3)			Other (Explain III Remarks)	
	ark Surface (A12)	,		Redox Dark Surface (F6)		³ In	dicators of hydrophytic vegetation and	
	Mucky Mineral (S1)			Depleted Dark Surface (F7)			wetland hydrology must be present,	
☐ Sandy G	Gleyed Matrix (S4)			Redox Depressions (F8)			unless disturbed or problematic.	
Restrictive	Layer (if present):	:						
Type:				-				
Depth (in	ches):					Hydri	c Soil Present? Yes ☐ No ⊠	
Remarks:						ı		
No hydric s	soils indicators	observ	ed.					
HYDROLO	ic.							
	Gi							
Wetland Hy	drology Indicator	s.						
_	drology Indicators		uired: ch	eck all that apply)			Secondary Indicators (2 or more required	1)
Primary Indi	cators (minimum of		uired; ch		cent MI R		Secondary Indicators (2 or more required	_
Primary India	cators (minimum of Water (A1)		uired; ch	☐ Water-Stained Leaves (B9) (ex	cept MLR		☐ Water-Stained Leaves (B9) (MLRA 1	
Primary India Surface High Wa	cators (minimum of Water (A1) uter Table (A2)		uired; ch	☐ Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B)	cept MLR	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)	_
Primary India Surface High Wa Saturation	cators (minimum of Water (A1) hter Table (A2) on (A3)		uired; ch	☐ Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) ☐ Salt Crust (B11)	cept MLR	RA	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)□ Drainage Patterns (B10)	
Primary India Surface High Wa Saturatio Water M	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)		uired; ch	 □ Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) 	cept MLR	RA	 Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) 	, 2 ,
Primary India Surface High Wa Saturatio Water M Sedimen	cators (minimum of Water (A1) Inter Table (A2) In (A3) Intarks (B1) Int Deposits (B2)		uired; ch	☐ Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1)		RA	 Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (, 2 ,
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	cators (minimum of Water (A1) Inter Table (A2) In (A3) Intraks (B1) Int Deposits (B2) Intraks (B3)		uired; ch	Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L	iving Root	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2)	, 2 ,
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1) ot Deposits (B2) posits (B3) at or Crust (B4)		uired; ch	Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4)	.iving Root	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3)	, 2 ,
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Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	cators (minimum of Water (A1) Inter Table (A2) Ion (A3) Iarks (B1) Int Deposits (B2) Ioosits (B3) Inter Crust (B4) Ioosits (B5) Soil Cracks (B6)	f one req		Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1)	.iving Roof) Soils (C6)	RA ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (□ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)	, 2 ,
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	cators (minimum of Water (A1) Inter Table (A2) In (A3) Int Deposits (B2) Int Deposits (B2) Int Orecessits (B3) Interpretation of the control	f one req	· (B7)	Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	.iving Roof) Soils (C6)	RA ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	, 2 ,
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	cators (minimum of Water (A1) Inter Table (A2) Ion (A3) Iarks (B1) Int Deposits (B2) Ioosits (B3) Int or Crust (B4) Ioosits (B5) Soil Cracks (B6) Ion Visible on Aerial	f one req	· (B7)	Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1)	.iving Roof) Soils (C6)	RA ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (□ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)	, 2 ,
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar evations:	f one req	r (B7) ce (B8)	Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1	.iving Roof) Soils (C6)	RA ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (□ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)	, 2 ,
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Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P	cators (minimum of Water (A1) water (A1) water Table (A2) on (A3) warks (B1) ont Deposits (B2) woosits (B3) wat or Crust (B4) woosits (B5) Soil Cracks (B6) on Visible on Aerial water Present? water Present?	f one req	y (B7) ce (B8) No ⊠	Water-Stained Leaves (B9) (ex 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1	Living Root Soils (C6)) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (□ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)	, 2 ,
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Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P (includes ca Describe Re Remarks: Wetland hy	cators (minimum of Water (A1) ater Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar vations: are Present? Present? Present? pillary fringe) acorded Data (streat	I Imagery ve Surface Yes Yes Yes Imagery Yes Imagery	v (B7) ce (B8) No 🖾 No 🗆 No 🗆 c, monitor	Water-Stained Leaves (B9) (ex. 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks) Depth (inches): Depth (inches): 12 Depth (inches): 11	wetla	ts (C3)) and Hyd if availat	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (□ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7) rology Present? Yes □ No ☑ on-growing season at time of	, 2 ,

Project/Site: 1655.0001 / Schoultes Property	ı	City/C	County:	Marysv	ille / Snohomish	Sam	pling Date: 03	/01/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-		State: WA		-	
Investigator(s): Richard Peel, Emily Swaim			8	Section, To	wnship, Range: 28,	31, 05N		
Landform (hillslope, terrace, etc.): Valley Floor		Loca	al relief	(concave,	convex, none): Con	cave	Slope	(%): <u>0</u>
Subregion (LRR): A-2	_ Lat: 48	.141	518		Long: -122.1648	38202	Datum:	WGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI class	ification: _	None	
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remar			
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology <u>v</u> sign	nificantly dis	turbe	d?	Are "No	ormal Circumstances"	present?	Yes ⊠ No l	
Are Vegetation, Soil, or Hydrology natu	urally probler	matic'	?	(If neede	ed, explain any answe	rs in Rem	arks.)	
SUMMARY OF FINDINGS - Attach site map	showing	sam	pling	point lo	ocations, transed	ts, imp	ortant featı	ures, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵								
Hydric Soil Present? Yes ☐ No 🗵				Sampled				
Wetland Hydrology Present? Yes ☐ No 🗵			withii	n a Wetlan	id? Yes _	No ⊠		
Remarks:	n watlan	d by	rd mole	2000	Ermad by arrays	drivatar	monitorin	o otudu
No wetland criteria observed. No	n-wenam	u ny	aroic	ogy com	iimied by groun	uwater	momtorm	g study.
VEGETATION – Use scientific names of plan	ts.							
T 0 (D	Absolute			Indicator	Dominance Test w	orksheet:		
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dominan That Are OBL, FAC			(A)
2					Total Number of Do	minant		
3					Species Across All S	Strata:	1	(B)
4	0	= T	otal Co	over	Percent of Dominan That Are OBL, FAC		: <u>0%</u>	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft)								
1					Prevalence Index v			
2					Total % Cover of OBL species 0		x 1 = 0	_
3					FACW species 0			
4							x = 0	
J	_	= T	otal Co	over	FACU species 0			
Herb Stratum (Plot size: 5 ft)					· ·		x 5 = 100	
1. Geranium molle	20	Ye	es	UPL	Column Totals: 20		(A) 100	(B)
2					Dravalance Inc	dov = D/A	- 5	
3					Prevalence Inc Hydrophytic Veget		<u> </u>	_
4					Rapid Test for H			
5					☐ Dominance Test		, vegetation	
6					☐ Prevalence Inde			
7 8					☐ Morphological A		s¹ (Provide sur	portina
9.							a separate she	
10					☐ Wetland Non-Va	ıscular Pla	ants ¹	
11					☐ Problematic Hyd	lrophytic √	/egetation¹ (Ex	plain)
Woody Vine Stratum (Plot size: 30 ft)	20	= T	otal Co	over	¹ Indicators of hydric be present, unless of			gy must
1					Uydromby#i-			
2					Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 80	0	= T	otal Co	ver	•	Yes 🗌	No 🗵	
Remarks: No hydrophytic vegetation indicators o	bserved.							

Depth	Matrix			Re	dox Featur	es		the abs	
(inches)	Color (moist)	%	Colc	r (moist)	%	Type ¹	Loc ²	Texture	
0 - 10	10YR 2/2	100						SaLo	<u> </u>
10 - 24	10YR 3/3	99	10`	YR 3/6	1	CS	M	Sand	
24 - 30	5gy 5/1	70	7.5	yr 5/8	30	CS	M	LoSa	
-			· · ·	•			-		
			<u> </u>						
¹Type: C=C	Concentration, D=D	epletion	RM=Red	uced Matrix	CS=Covere	ed or Coate	ed Sand Gr	ains	² Location: PL=Pore Lining, M=Matrix.
	Indicators: (App						ou ourid or		dicators for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox		,			2 cm Muck (A10)
	pipedon (A2)			Stripped Matr					,
☐ Black Hi	istic (A3)			_oamy Mucky			MLRA 1)		Very Shallow Dark Surface (TF12)
	en Sulfide (A4)			_oamy Gleye		2)			Other (Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Depleted Mat					
	ark Surface (A12)			Redox Dark S	•	•		³ In	dicators of hydrophytic vegetation and
-	Mucky Mineral (S1)			Depleted Darl	•	•			wetland hydrology must be present,
	Bleyed Matrix (S4) Layer (if present)			Redox Depres	ssions (F8)				unless disturbed or problematic.
Type:	Layer (II present)								
	nches):			_				I I and at	Oction of the Market
								Hydric	c Soil Present? Yes ☐ No 区
Remarks:									
No hydric	soils indicators	observ	ed.						
HYDROLO)GY								
Wetland Hy	drology Indicator	s:							
Primary Indi	icators (minimum o	f one req	uired; ch	eck all that ap	ply)				Secondary Indicators (2 or more required)
☐ Surface	Water (A1)			☐ Water-S	ained Leav	(50) (
★ High Wa	ater Table (A2)					/es (B9) (e	xcept MLR		☐ Water-Stained Leaves (B9) (MLRA 1, 2,
▼ Saturation	on (A3)			1, 2,	4A, and 4I		xcept MLR		Water-Stained Leaves (B9) (MLRA 1, 2,4A, and 4B)
☐ Water M	(54)			1, 2, ☐ Salt Crus	4A, and 4I		xcept MLR	2A	
	larks (B1)			• • •	4A, and 4l st (B11)	3)	xcept MLR	RA	4A, and 4B)
	nt Deposits (B2)			Salt Crus	4A, and 4l st (B11)	B)	xcept MLR	XA	4A , and 4B) ☐ Drainage Patterns (B10)
Sedimer	` ,			☐ Salt Crus ☐ Aquatic ☐ ☐ Hydroge	4A, and 4l st (B11) nvertebrate n Sulfide C	es (B13) edor (C1)	xcept MLR	A.	4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2)
☐ Sedimer	nt Deposits (B2)			Salt Crus Aquatic I Hydroge Oxidized	4A, and 4l st (B11) nvertebrate n Sulfide C	es (B13) dor (C1) eres along	Living Root	ts (C3)	4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9)
Sedimer Drift Dep Algal Ma	nt Deposits (B2) posits (B3)			Salt Crus Aquatic Hydroge Oxidized	4A, and 4I st (B11) nvertebrate n Sulfide C Rhizosphe e of Reduc	es (B13) odor (C1) eres along ed Iron (C4	Living Root	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2)
Sedimer Drift Dep Algal Ma	nt Deposits (B2) posits (B3) at or Crust (B4)			Salt Crus Aquatic I Hydroge Oxidized Presence	4A, and 4I st (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct ron Reduct	es (B13) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C4)	Living Root	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3)
Sedimer Drift Dep Algal Ma Iron Dep Surface	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ıl Imagery	v (B7)	Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted	4A, and 4I st (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct ron Reduct	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Root I) d Soils (C6)	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
Sedimer Drift Dep Algal Ma Iron Dep Surface	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)			Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted	4A, and 4B st (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct ron Reduct or Stressed	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Root I) d Soils (C6)	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Sedimer Drift Dep Algal Ma Iron Dep Surface	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca			Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted	4A, and 4B st (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct ron Reduct or Stressed	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Root I) d Soils (C6)	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca			Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted	4A, and 4B st (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct ron Reduct or Stressed xplain in Re	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Root I) d Soils (C6)	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	ve Surfac	ce (B8)	Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted Other (E	4A, and 4B st (B11) nvertebrate n Sulfide C Rhizosphe e of Reductor Reductor Stressed xplain in Reductor Stressed	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Root I) d Soils (C6)	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	ve Surfac Yes ☐ Yes ☒	No 🔀	Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	4A, and 4B st (B11) invertebrate in Sulfide C Rhizosphe e of Reduction Reduction Stressed explain in Research in R	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Root I) d Soils (C6) 1) (LRR A)	ts (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? pillary fringe)	Yes Yes X	No 🔀 No 🗆	Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted Other (E	4A, and 4B st (B11) nvertebraten Sulfide C Rhizosphe e of Reductor Reductor Stressed xplain in Reses: 10 es): 10 es): 8	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	Living Root I) d Soils (C6) 1) (LRR A)	ds (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present?	Yes Yes X	No 🗵 No 🗆	Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted Other (E	4A, and 4B st (B11) nvertebraten Sulfide C Rhizosphe e of Reductor Reductor Stressed xplain in Reses: 10 es): 10 es): 8	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	Living Root I) d Soils (C6) 1) (LRR A)	ds (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? pillary fringe)	Yes Yes X	No 🗵 No 🗆	Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted Other (E	4A, and 4B st (B11) nvertebraten Sulfide C Rhizosphe e of Reductor Reductor Stressed xplain in Reses: 10 es): 10 es): 8	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	Living Root I) d Soils (C6) 1) (LRR A)	ds (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? pillary fringe)	Yes Yes X	No 🗵 No 🗆	Salt Crus Aquatic Hydroge Oxidized Presence Recent I Stunted Other (E	4A, and 4B st (B11) nvertebraten Sulfide C Rhizosphe e of Reductor Reductor Stressed xplain in Reses: 10 es): 10 es): 8	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	Living Root I) d Soils (C6) 1) (LRR A)	ds (C3)	4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
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Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Res Remarks: Wetland h monitoring	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? Present? pillary fringe) ecorded Data (strea	Yes Yes Yes Yes Yes Yes Yes On obse	No 🗵 No 🗆 No one (B8)	Salt Crus Aquatic I Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E Depth (inch Depth (inch Depth (inch ing well, aeria	4A, and 4B st (B11) nvertebrate in Sulfide Con Reduct from Reduct for Stressed explain in Research in Sulfide Stresses in Sulf	es (B13) eles (B13) eles (C1) eres along eled Iron (C4) ion in Tille d Plants (Demarks) elemarks) erevious inservious inservious inservious	Living Root I) d Soils (C6) 1) (LRR A) Wetla spections), i	and Hyd if availab	AA, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7) rology Present? Yes □ No ☑ on-growing season at time of glocation MP-17 indicated

Project/Site: 1655.0001 / Schoultes Property		City/C	county: Mar	rysville	e / Snohomis	shsan	npling Date: 03	/01/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-				npling Point: D	
Investigator(s): Richard Peel, Emily Swaim			Section	n, Towr	nship, Range: <u>2</u>	28, 31, 05N	1	
Landform (hillslope, terrace, etc.): Valley Floor		Loca	al relief (conc	cave, co	nvex, none): C	Concave	Slope	(%): <u>0</u>
Subregion (LRR): A-2	_ Lat: 48.	1418	368		ong: -122.1	6445431	Datum:	WGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI c	lassification:	None	
Are climatic / hydrologic conditions on the site typical for this					o, explain in Re			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed	d? Are	re "Norm	nal Circumstanc	es" present?	Yes 🗵 No	
Are Vegetation, Soil, or Hydrology natu	ırally probleı	matic?	? (If n	needed,	explain any an	swers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sam	pling poir	int loc	ations, tran	sects, imp	oortant feat	ıres, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵								
Hydric Soil Present? Yes ☐ No 🗵			Is the Samp	-				
Wetland Hydrology Present? Yes ☐ No ☒			within a We	/etland1	? Ye	s No 🗵		
Remarks:								
No wetland criteria observed. Nor	n-wetlan	d hy	drology c	confir	med by gro	oundwate	r monitorin	g study.
VEGETATION – Use scientific names of plan	ts.							
	Absolute		inant Indicat		Dominance Tes	st worksheet	:	
Tree Stratum (Plot size: 30 ft) 1			cies? Statu		Number of Domi That Are OBL, F			(A)
2					otal Number of	Dominant		
3				^s	Species Across	All Strata:	0	(B)
4		= To	otal Cover		Percent of Domi That Are OBL, F			(A/D)
Sapling/Shrub Stratum (Plot size: 15 ft)			J. 100701	'	rial Are Obl., F	ACW, OF FAC	J. <u>U</u>	(A/D)
1				F	Prevalence Ind			
2				-			Multiply by	_
3						_	x 1 = 0	
4		. —					x 2 = 0	
5		·			AC species		x 3 = 0	
Herb Stratum (Plot size: <u>5 ft</u>)	0	= To	otal Cover		ACU species	_	x 4 = 0	—
1					JPL species		x = 0	(D)
2				_ '	Column Totals:	0	(A) <u>0</u>	(B)
3.				_	Prevalence	e Index = B/A	A =	_
4.				ŀ	lydrophytic Ve	egetation Ind	licators:	
5				[☐ Rapid Test f	or Hydrophyt	ic Vegetation	
6				[Dominance	Test is >50%		
7					▼ Prevalence l	Index is ≤3.01	1	
8				[ns¹ (Provide sup n a separate sh	
9		-		— [☐ Wetland Nor	n-Vascular Pl	ants ¹	,
10		-		— [☐ Problematic	Hydrophytic	Vegetation¹ (Ex	plain)
11	0		-1-1-0				wetland hydrolo	gy must
Woody Vine Stratum (Plot size: 30 ft)		= 10	otal Cover	k	e present, unle	ss disturbed	or problematic.	
1					lydrophytic			
2	0				egetation/ Present?	Yes □	No ⊠	
% Bare Ground in Herb Stratum 100		= 10	otal Cover	'	riesentr	res 🗀	NO 🔼	
<u> </u>	boomrodi	thora		nlonto	procent du	o to roconi	t plauing	
Remarks: No hydrophytic vegetation indicators o	iDSEIVEU,	uieie	weie no	Piarits	present, du	e to recen	i piowing.	

Depth	Matrix				dox Featur		12	T 4	_		ъ.		
(<u>inches)</u> 0 - 22	Color (moist) 10YR 3/2	<u>%</u> 98		r (moist) YR 3/6	2	<u>Type¹</u> C	M, PL	SaLo			Re	<u>marks</u>	
	-						 _						
22 - 30	5y 4/1	98	7.5	yr 4/6	2	CS	M	LoSa	<u> </u>				
	-												
	-							-					
	oncentration, D=D						ted Sand Gr					Lining, M=	
-	Indicators: (Appl	licable to				oted.)						atic Hydric	Soils ³ :
Histosol	• •			Sandy Redox						Muck (A	,		
	pipedon (A2)			Stripped Matr	. ,					Parent N		, ,	
Black His				_oamy Mucky			t MLRA 1)		-			Surface (TF	12)
	n Sulfide (A4)	(Δ44)		_oamy Gleye		-2)			Othe	r (Explai	n in Re	marks)	
	d Below Dark Surfa ark Surface (A12)	ice (ATT)		Depleted Mati Redox Dark S		2)		31	dicata	ro of by	lranh, #i	c vegetatior	and
_	lucky Mineral (S1)			Depleted Dark	•	,		-11				ust be prese	
-	Gleyed Matrix (S4)			Redox Depres		. ,				-		roblematic.	511L,
	Layer (if present)	•	<u> </u>	todox Bopies	0 1) 6110166	,			unico	o diotari	ou or p	TODIOTTIALIO.	
Type:													
	ches):							Hydri	انه ی	Present	2 Va	s ⊟ No i	⊽
emarks:	/							пуш	C SOII	Fieseiii	ir re	S NO	<u> </u>
o hydric :	soils indicators	observ	ed.										
DROLO	GY		ed.										
DROLO	GY drology Indicator	s:		ock all that an	only)				Sacar	adary Inc	licators	(2 or more	roquirod)
DROLO /etland Hyerimary Indic	GY drology Indicator cators (minimum o	s:				nyoo (PO) (oveent MI E					(2 or more	
/DROLO /etland Hydrimary India] Surface	drology Indicator cators (minimum o	s:		☐ Water-St	tained Lea		except MLR	RA		ater-Sta	ned Le	<u>(2 or more</u> aves (B9) (I	
TDROLO Tetland Hydrimary India Surface V High Wa	drology Indicator cators (minimum o Water (A1) tter Table (A2)	s:		☐ Water-St	tained Lea 4A, and 4		except MLR	RA	□ w	ater-Sta 4A, an	ned Le d 4B)	aves (B9) (I	
TDROLO Tetland Hydrimary India Surface V High Wa Saturation	drology Indicator cators (minimum o Water (A1) tter Table (A2) on (A3)	s:		☐ Water-St 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	·B)	except MLF		□ W	ater-Sta 4A , an ainage l	ined Le d 4B) Patterns	aves (B9) (I	WLRA 1, 2
'DROLO letland Hydrimary India Surface High Wa Saturatic Water M	drology Indicator cators (minimum o Water (A1) tter Table (A2) on (A3) arks (B1)	s:		☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	tained Lea 4A, and 4 st (B11) Invertebrat	tes (B13)	except MLR		☐ W	ater-Sta 4A, an rainage I	ined Le d 4B) Patterns on Wate	aves (B9) (I s (B10) r Table (C2	WILRA 1, 2
TOROLO Tetland Hydrimary India Surface V High Wa Saturatic Water Mater Ma	drology Indicator cators (minimum o Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2)	s:		Water-Si 1, 2, Salt Crus Aquatic I Hydroge	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (tes (B13) Odor (C1)			☐ W ☐ Dr ☐ Dr ☐ Sa	ater-Sta 4A, an rainage I y-Seaso	ined Le d 4B) Patterns in Wate Visible	aves (B9) (I s (B10) r Table (C2 on Aerial Ir	MLRA 1, 2
TDROLO Tetland Hydrimary India Surface V High Wa Saturatic Water Mater Ma	drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	s:		Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph	tes (B13) Odor (C1) heres along	Living Roo		☐ W ☐ Dr ☐ Dr ☐ Sa	ater-Sta 4A, an rainage I y-Seaso aturation	ined Le d 4B) Patterns on Wate Visible lic Posit	aves (B9) (I s (B10) r Table (C2 on Aerial Intion (D2)	MLRA 1, 2
TDROLO Tetland Hydrimary India Timary India Surface V High Wa Saturatio Water M Sediment Drift Dep Algal Ma	drology Indicator cators (minimum o Water (A1) ther Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	s:		Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph e of Reduc	tes (B13) Odor (C1) teres along ced Iron (C	Living Roo 4)	ts (C3)	☐ W ☐ Dr ☐ Dr ☐ Sa ☐ Ge	ater-Sta 4A, an ainage I y-Seaso aturation eomorph nallow A	ined Le d 4B) Patterns on Wate Visible ic Posit	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3)	MLRA 1, 2
TDROLO Tetland Hydrimary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	drology Indicator cators (minimum of Water (A1) ther Table (A2) on (A3) arks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	s:		Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	tained Lea 4A, and 4 st (B11) Invertebrat in Sulfide (I I Rhizosph e of Reduction Reduction	tes (B13) Odor (C1) heres along ced Iron (C- tion in Tille	Living Roo 4) ed Soils (C6	ts (C3)	W Dr Dr Sa Ga St Ga FA	ater-Sta 4A, an rainage I y-Seasc aturation eomorph hallow Ac-Neuti	ned Le d 4B) Patterns n Wate Visible lic Posit quitard ral Test	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5)	MLRA 1, 2
/DROLO /etland Hydrimary India Surface Name High Wa Saturatic Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S	drology Indicator cators (minimum o Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	s: f one requ	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) Investebrat Inve	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4)	ts (C3)	W Dr Dr Sa Gr Sr F#	ater-Sta 4A, an ainage I ay-Seasc aturation eomorph nallow Ac AC-Neuti	ned Le d 4B) Patterns on Wate Visible lic Posit quitard ral Test	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5) ds (D6) (LR	MLRA 1, 2) nagery (CS
TDROLO Tetland Hydrimary India Tetland Hydrimary India Tetland Wall Te	drology Indicator cators (minimum of Water (A1) Inter Table (A2) on (A3) arks (B1) Int Deposits (B2) posits (B3) art or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	s: f one requ	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat in Sulfide (I I Rhizosph e of Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) ed Soils (C6	ts (C3)	W Dr Dr Sa Gr Sr F#	ater-Sta 4A, an ainage I ay-Seasc aturation eomorph nallow Ac AC-Neuti	ned Le d 4B) Patterns on Wate Visible lic Posit quitard ral Test	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5)	MLRA 1, 2) nagery (CS
YDROLO Yetland Hydrimary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely	drology Indicator cators (minimum o Water (A1) ther Table (A2) on (A3) arks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	s: f one requ	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) Investebrat Inve	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) ed Soils (C6	ts (C3)	W Dr Dr Sa Gr Sr F#	ater-Sta 4A, an ainage I ay-Seasc aturation eomorph nallow Ac AC-Neuti	ned Le d 4B) Patterns on Wate Visible lic Posit quitard ral Test	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5) ds (D6) (LR	MLRA 1, 2) nagery (CS
/DROLO /etland Hydrimary India Surface Variable High Wa Saturation Water March	drology Indicator cators (minimum of Water (A1) of the Table (A2) on (A3) arks (B1) of Deposits (B2) deposits (B3) of the Crust (B4) deposits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations:	s: f one requ I Imagery ve Surfac	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) In Sulfide	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) ed Soils (C6	ts (C3)	W Dr Dr Sa Gr Sr F#	ater-Sta 4A, an ainage I ay-Seasc aturation eomorph nallow Ac AC-Neuti	ned Le d 4B) Patterns on Wate Visible lic Posit quitard ral Test	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5) ds (D6) (LR	MLRA 1, 2) nagery (CS
/DROLO /etland Hydrimary India Surface Valle High Wa Saturation Water Male Sedimen Drift Dep Algal Male Iron Dep Surface Surface Inundation Sparsely Inundation Inundation Sparsely Inundation Sparsely Inundation Inundation	drology Indicator cators (minimum of water (A1) atter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) attor Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations:	s: f one requirements I Imagery ve Surface	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) In Sulfide	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) ed Soils (C6	ts (C3)	W Dr Dr Sa Gr Sr F#	ater-Sta 4A, an ainage I ay-Seasc aturation eomorph nallow Ac AC-Neuti	ned Le d 4B) Patterns on Wate Visible lic Posit quitard ral Test	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5) ds (D6) (LR	MLRA 1, 2) nagery (CS
/DROLO /etland Hydrimary India Surface Valle Saturatio Water Male Sedimen Drift Dep Algal Male Iron Dep Surface Valle Sparsely ield Obserurface Water Table	drology Indicator cators (minimum o Water (A1) Iter Table (A2) In (A3) In Deposits (B2) In Crust (B4) In Or Crust (B4) In Or Crust (B4) In Or Crust (B6) In Visible on Aeria In Vegetated Conca In Vations: Iter Present? In Present?	s: f one requ I Imagery ve Surfac Yes □ Yes ⊠	uired; che (B7) ce (B8) No 🔀	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduc ron Reduc or Stresse xplain in R	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) ad Soils (C6 01) (LRR A)	tts (C3)	W Dr Sa Sa Sa Sa Sa Sa Sa S	ater-Sta 4A, an ainage I y-Seasc aturation ecomorph nallow Ar AC-Neuti aised An ost-Hear	ined Le d 4B) Patterns on Wate Visible pic Posit quitard ral Test t Mound we Hum	aves (B9) (I s (B10) r Table (C2 on Aerial Ir cition (D2) (D3) (D5) ds (D6) (LR mocks (D7)	MLRA 1, 2
YDROLO Vetland Hydrimary India Surface V High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatic Sparsely Field Obser Gurface Water Table Saturation P	drology Indicator cators (minimum of water (A1) and water (A2) on (A3) arks (B1) and Deposits (B2) cosits (B3) and or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria water Present?	s: f one requirements I Imagery ve Surface	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduc ron Reduc or Stresse xplain in R	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) ad Soils (C6 01) (LRR A)	ts (C3)	W Dr Sa Sa Sa Sa Sa Sa Sa S	ater-Sta 4A, an ainage I y-Seasc aturation ecomorph nallow Ar AC-Neuti aised An ost-Hear	ined Le d 4B) Patterns on Wate Visible pic Posit quitard ral Test t Mound we Hum	aves (B9) (I s (B10) r Table (C2 on Aerial Ir cition (D2) (D3) (D5) ds (D6) (LR mocks (D7)	MLRA 1, 2
YDROLO Vetland Hydrimary India Surface Very High Water March Sedimen Drift Dep Algal March Iron Dep Surface Sedimen Unundation Sparsely Field Obser Surface Water Table Staturation Pencludes cap	drology Indicator cators (minimum o Water (A1) Iter Table (A2) In (A3) In Deposits (B2) In Crust (B4) In Or Crust (B4) In Or Crust (B4) In Or Crust (B6) In Visible on Aeria In Vegetated Conca In Vations: Iter Present? In Present?	s: f one require I Imagery ve Surface Yes □ Yes ☒ Yes ☒ Yes ☒	uired; che (B7) ce (B8) No 🖾 No 🖂	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduc ron Reduc or Stresse xplain in R nes): 10 nes): 7	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (C Remarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	ts (C3)) and Hyd	W	ater-Sta 4A, an ainage I y-Seasc aturation ecomorph nallow Ar AC-Neuti aised An ost-Hear	ined Le d 4B) Patterns on Wate Visible pic Posit quitard ral Test t Mound we Hum	aves (B9) (I s (B10) r Table (C2 on Aerial Ir cition (D2) (D3) (D5) ds (D6) (LR mocks (D7)	MLRA 1, 2
VDROLO Vetland Hydrimary India Surface Votal High Wa Saturatio Water Male Sedimen Drift Dep Algal Male Iron Dep Surface Solution Inundatio Sparsely ield Obser Surface Water Table Staturation P Includes cap Describe Reserver	drology Indicator cators (minimum of water (A1) atter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria at Vegetated Concarvations: are Present? Present? Present?	s: f one require I Imagery ve Surface Yes □ Yes ☒ Yes ☒ Yes ☒	uired; che (B7) ce (B8) No 🖾 No 🖂	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduc ron Reduc or Stresse xplain in R nes): 10 nes): 7	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (C Remarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	ts (C3)) and Hyd	W	ater-Sta 4A, an ainage I y-Seasc aturation ecomorph nallow Ar AC-Neuti aised An ost-Hear	ined Le d 4B) Patterns on Wate Visible pic Posit quitard ral Test t Mound we Hum	aves (B9) (I s (B10) r Table (C2 on Aerial Ir cition (D2) (D3) (D5) ds (D6) (LR mocks (D7)	MLRA 1, 2
/DROLO /etland Hydrimary India Surface High Wa Saturatio Water Mall Sedimen Drift Dep Algal Mall Iron Dep Surface Inundatio Sparsely ield Obserurface Water Table aturation Pencludes capescribe Reservants:	drology Indicator cators (minimum of water (A1) atter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: The Present? Present? Present? Present? Present? pillary fringe) corded Data (streat	s: f one require I Imagery ve Surface Yes □ Yes ☒ Yes ☒ am gauge	uired; che (B7) ce (B8) No 🔲 No 🖂	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide Coll Rhizosph e of Reduct or Reduct or Stresse xplain in Reduct nes): nes): 10 nes): 17 al photos,	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (C Remarks) previous in	Living Roo 4) ed Soils (C6 01) (LRR A) Weth	ts (C3)) and Hyd if availat	Dr Dr Dr Sa Go Go Go F#	ater-Sta 4A, an ainage I y-Seasc aturation eomorph nallow Ar AC-Neutr aised An ost-Hear	ined Le d 4B) Patterns on Wate Visible lic Posit quitard ral Test t Mound ve Hum	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5) ds (D6) (LR mocks (D7)	MLRA 1, 2) nagery (CS
EDROLO etland Hydimary India Surface Valle High Waa Saturatio Water Maale Orift Dep Algal Maa Iron Dep Surface Valle Inundatio Sparsely eld Observation Package Valle India Vall	drology Indicator cators (minimum of water (A1) atter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria at Vegetated Concarvations: are Present? Present? Present? pillary fringe)	s: f one required from the second sec	uired; che (B7) ce (B8) No □ No □ , monitor	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduct or Reduct or Stresse xplain in R nes): nes): 10 nes): 17 al photos,	tes (B13) Odor (C1) heres along ced Iron (Cition in Tille d Plants (Citemarks) previous in	Wetlaspections),	and Hyd	W	ater-Sta 4A, an ainage I y-Seaso aturation eomorph hallow Ar AC-Neutr aised An ost-Hear y Preser	ined Le d 4B) Patterns on Wate Visible lic Posit quitard ral Test t Mound ve Hum	aves (B9) (I s (B10) r Table (C2 on Aerial Ir tion (D2) (D3) (D5) ds (D6) (LR mocks (D7)	MLRA 1, 2) nagery (C:

Project/Site: 1655.0001 / Schoultes Property	ı	City/C	ounty: Mary	sville / Snol	nomish	Sampling Date: 0	3/01/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-			Sampling Point:	
Investigator(s): Emily Swaim, Richard Peel			Section,	Township, Ra	_{nge:} 28, 3	1, 05N	
Landform (hillslope, terrace, etc.): Valley Floor		_Loca	ıl relief (conca	ve, convex, no	_{ne):} Conc	ave Slop	e (%): 0
Subregion (LRR): A-2	_ _{Lat:} 48.	1418	867	Long:^	122.16558	3453 Datum	WGS 84
Soil Map Unit Name: Custer fine sandy loam						_{ication:} None	
Are climatic / hydrologic conditions on the site typical for this				(If no, explair			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbec	d? Are "	Normal Circur	nstances" pr	resent? Yes 🗷 No	o 🗌
Are Vegetation, Soil, or Hydrology natu	urally probler	matic?	? (If nee	eded, explain a	any answers	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site map				t locations,	transect	s, important fea	itures, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵							
Hydric Soil Present? Yes ☐ No ☒			Is the Sample			=	
Wetland Hydrology Present? Yes ☐ No ☒			within a Wet	land?	Yes 🗌	No 🗵	
Remarks:							
No wetland criteria observed. No	n-wetland	d hy	drology co	onfirmed b	y ground	lwater monitori	ing study.
VEGETATION – Use scientific names of plan	ts.						
	Absolute		inant Indicato		ce Test wo	rksheet:	
Tree Stratum (Plot size: 30 ft) 1			cies? Status	Nullibel C	of Dominant OBL, FACW		(A)
2					nber of Dom	inant	
3				Species A	cross All St	rata: <u>0</u>	(B)
4			otal Cover		f Dominant S		(-
Sapling/Shrub Stratum (Plot size: 15 ft)	<u> </u>	- 10	otal Covel	That Are	OBL, FACW	, or FAC: <u>U</u>	(A/B)
1				Prevalen	ce Index wo	orksheet:	
2					% Cover of:	: Multiply	<u>by:</u>
3				OBL spec	ies <u>0</u>	x 1 = <u>0</u>	
4				FACW sp		x 2 = <u>0</u>	
5				FAC spec		x 3 = 0	
Hart Otrature (Districtor 5 ft)	0	_ = To	otal Cover	FACU spe	_	x 4 = 0	
Herb Stratum (Plot size: 5 ft)				UPL spec		x 5 = 0	
1 2				- Column T	otals: U	(A) <u>0</u>	(B)
3.				Prev	/alence Inde	ex = B/A =	
4.						tion Indicators:	
5				☐ Rapid	Test for Hy	drophytic Vegetation	
6.				☐ Domir	nance Test i	s >50%	
7.				➤ Preva	lence Index	is ≤3.0 ¹	
8.						aptations¹ (Provide si	
9						rks or on a separate s cular Plants¹	meet)
10				-		ophytic Vegetation¹ (I	Evnlain)
11					•	oil and wetland hydro	. ,
Woody Vine Stratum (Plot size: 30 ft)	0	_ = To	otal Cover			sturbed or problemation	
1				Hydrophy	ytic		
2	0			- Vegetatio		/oo□ No⊡	
% Bare Ground in Herb Stratum 100	<u> </u>	= To	otal Cover	Present?	Y	′es □ No ⊠	
Remarks: No hydrophytic vegetation indicators of	hoomical			ı			
ino nyuropnytic vegetation indicators o	wserveu.						

Depth	Matrix	0/			dox Featur		12	T •	_		_		
(inches)	Color (moist)	<u>%</u>	Colo	r (moist)	%	Type ¹	Loc ²	Textur			Re	<u>emarks</u>	
0 - 18	10YR 3/2	100						SaLo					
18 - 30	10YR 3/3	99	10\	YR 3/6	<u> </u>	CS	<u>M</u>	LoSa	3				
		_											
								-		-			
										-			
	-												
	oncentration, D=D						ed Sand G						M=Matrix.
lydric Soil	Indicators: (Appl	icable to	all LRR	s, unless oth	erwise no	oted.)		In	dicato	rs for P	roblem	atic Hyd	dric Soils³:
Histosol	, ,			Sandy Redox						Muck (A	,		
	oipedon (A2)			Stripped Matri	. ,					Parent N		` ,	
Black Hi				_oamy Mucky			t MLRA 1)		•			Surface (TF12)
	en Sulfide (A4)	(Δ11)		_oamy Gleyed		2)) Othe	r (Explai	n in Re	emarks)	
	d Below Dark Surfa ark Surface (A12)	ice (ATT)		Depleted Matri Redox Dark Si		:1		31.	ndicata	re of hus	tranh: 4	ic vegete	ation and
	Mucky Mineral (S1)			Depleted Dark	•	,		-11		-		ust be p	
_	Gleyed Matrix (S4)			Redox Depres						-		problema	
	Layer (if present)			todox Boproo	0.010 (1.0)	<u>'</u>			unioo	o diotars	- Cu - Ci - F	7,00,01114	
Type:	,			_									
												_	
Depth (in	ches):							Hydri	c Soil	Present	2 Y	1 Pe	Jo X
Remarks:	soils indicators							Hydri	c Soil	Present	1? Y	es 📙 N	No ⊠
Remarks: lo hydric :	soils indicators	observ						Hydri	c Soil	Present	1? Y	es 📙 N	No ⊠
Remarks: Io hydric s YDROLO Wetland Hy	soils indicators GY drology Indicator	observ s:	ed.		nh/)			Hydri					
Remarks: Io hydric s YDROLO Vetland Hy Primary India	soils indicators OGY drology Indicator cators (minimum o	observ s:	ed.	eck all that ap		vos (BO) (a	veent MI E		Secon	ndary Inc	licators	: (2 or mo	ore required)
Remarks: O hydric s YDROLO Vetland Hy Primary Indi Surface	oGY drology Indicator cators (minimum o	observ s:	ed.	eck all that ap ☐ Water-Sta	ained Lea		xcept MLF		Secon	ndary Inc	licators	: (2 or mo	
YDROLO Vetland Hy Crimary India Surface High Wa	or soils indicators OGY Odrology Indicator Cators (minimum o Water (A1) Ater Table (A2)	observ s:	ed.	eck all that ap ☐ Water-Sta 1, 2, 4	ained Lea 4 A, and 4		xcept MLF		Secon	ndary Inc ater-Stai 4A, an	licators ined Le d 4B)	s (2 or mo	ore required)
YDROLO Yetland Hy Primary India Surface High Wa Saturatio	or soils indicators or o	observ s:	ed.	eck all that app ☐ Water-Sta 1, 2, 4 ☐ Salt Crus	ained Lea 4A, and 4 t (B11)	В)	xcept MLF		Secon W	ndary Inc ater-Stai 4A, an ainage F	licators ined Le d 4B) Pattern	: (2 or mo eaves (BS s (B10)	ore required)
POROLO PO	oGY drology Indicators cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)	observ s:	ed.	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir	ained Lea 4A, and 4 It (B11) Invertebrat	B) es (B13)	xcept MLF		Secor W	ndary Inc ater-Stai 4A, an rainage F y-Seaso	licators ined Le d 4B) Pattern	s (2 or mo eaves (B9 s (B10) er Table (ore required) 9) (MLRA 1,
Primary India Surface High Water M Water M Sedimer	or (A1) ater Table (A2) bon (A3) larks (B1) at Deposits (B2)	observ s:	ed.	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic In Hydroger	ained Lea 4A, and 4 t (B11) nvertebrat n Sulfide C	es (B13) Odor (C1)		RA	Secon W Di Di Si	adary Inc ater-Stai 4A, an ainage F y-Seaso aturation	dicators ined Le d 4B) Patterna on Wate Visible	eaves (Bs s (B10) er Table	ore required) (MLRA 1,
YDROLO Yetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	or (A3) larks (B1) nt Deposits (B2) posits (B3)	observ s:	ed.	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized	ained Lea 4A, and 4 it (B11) invertebrat in Sulfide C Rhizosph	es (B13) Odor (C1) eres along	Living Roo	RA	Secon W Di Di Si	adary Inc ater-Stai 4A, an ainage F y-Seasc aturation eomorph	ined Le d 4B) Pattern on Wate Visible iic Posi	s (2 or mo eaves (Bs s (B10) er Table e on Aeria tion (D2)	ore required) (MLRA 1,
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	pGY drology Indicators cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	observ s:	ed.	eck all that ap Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Lea 4A, and 4 it (B11) invertebrat in Sulfide C Rhizosphi e of Reduc	es (B13) Odor (C1) eres along ed Iron (C4	Living Roo 4)	RA ts (C3)	Secon W Di Di Si Gi Si	adary Inc ater-Stai 4A, an ainage F y-Seaso aturation eomorph nallow Ad	licators ined Le d 4B) Pattern on Wate Visible iic Posi quitard	s (2 or mo eaves (Bs s (B10) er Table e on Aeria tion (D2) (D3)	ore required) (MLRA 1,
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	observ s:	ed.	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Lea 4A, and 4 It (B11) Invertebrat In Sulfide C Rhizospho In Reduction Reduction	es (B13) Odor (C1) eres along red Iron (C4	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W DI DI Si Gi Si	adary Inc ater-Stai 4A, an ainage F y-Seaso aturation eomorph nallow Ac	licators ined Le d 4B) Pattern on Wate Visible ic Posi quitard ral Tes	s (2 or mo eaves (Bs s (B10) er Table (e on Aeria tion (D2) (D3) t (D5)	ore required) (MLRA 1, (C2) al Imagery (C
YDROLO Vetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep	or (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	observ s: f one requ	ed.	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse	es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	Living Roo 4)	RA ts (C3)	Secor W Di Di Si Gi Si F/4 Ri	adary Inc ater-Star 4A, an rainage F y-Seasc aturation eomorph nallow Ac AC-Neutraised An	dicators ined Le d 4B) Pattern on Wate Visible iic Posi quitard ral Tesi t Moun	s (2 or mo eaves (89 s (B10) er Table (e e on Aeria tion (D2) (D3) t (D5) ds (D6) (Ore required) (C2) (C2) (Imagery (C)
YDROLO YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria	observ s: f one requ	ed. uired; che	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Lea 4A, and 4 It (B11) Invertebrat In Sulfide C Rhizospho In Reduction Reduction	es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W Di Di Si Gi Si F/4 Ri	adary Inc ater-Star 4A, an rainage F y-Seasc aturation eomorph nallow Ac AC-Neutraised An	dicators ined Le d 4B) Pattern on Wate Visible iic Posi quitard ral Tesi t Moun	s (2 or mo eaves (Bs s (B10) er Table (e on Aeria tion (D2) (D3) t (D5)	Ore required) (C2) (C2) (Imagery (C)
YDROLO Vetland Hy Primary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	soils indicators OGY Orology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca	observ s: f one requ	ed. uired; che	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse	es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W Di Di Si Gi Si F/4 Ri	adary Inc ater-Star 4A, an rainage F y-Seasc aturation eomorph nallow Ac AC-Neutraised An	dicators ined Le d 4B) Pattern on Wate Visible iic Posi quitard ral Tesi t Moun	s (2 or mo eaves (89 s (B10) er Table (e e on Aeria tion (D2) (D3) t (D5) ds (D6) (Ore required) (C2) (C2) (Imagery (C)
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	posits (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria v Vegetated Conca	observ s: f one requirements I Imagery	ed. uired; che	eck all that ap Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o	ained Lea 4A, and 4 it (B11) nvertebrat in Sulfide C Rhizospho e of Reduct on Reduct or Stressed kplain in R	es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W Di Di Si Gi Si F/4 Ri	adary Inc ater-Star 4A, an rainage F y-Seasc aturation eomorph nallow Ac AC-Neutraised An	dicators ined Le d 4B) Pattern on Wate Visible iic Posi quitard ral Tesi t Moun	s (2 or mo eaves (89 s (B10) er Table (e e on Aeria tion (D2) (D3) t (D5) ds (D6) (Ore required) (C2) (C2) (Imagery (C)
YDROLO YDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser	or vegetated Concarvations:	observ s: f one requirements I Imagery ve Surface Yes	ed. uired; che (B7) ce (B8)	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse xplain in R	es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W Di Di Si Gi Si F/4 Ri	adary Inc ater-Star 4A, an rainage F y-Seasc aturation eomorph nallow Ac AC-Neutraised An	dicators ined Le d 4B) Pattern on Wate Visible iic Posi quitard ral Tesi t Moun	s (2 or mo eaves (89 s (B10) er Table (e e on Aeria tion (D2) (D3) t (D5) ds (D6) (Ore required) (C2) (C2) (Imagery (C)
Primary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Water Table	GGY Idrology Indicators Cators (minimum or	s: f one requirements I Imagery ve Surface Yes Yes	ed. uired; che (B7) ce (B8) No 🏽	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresser xplain in R es):	es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	RA tts (C3)	Secor W Di Di Si Gi St	adary Inc ater-Stai 4A, an ainage F y-Seaso aturation eomorph nallow Ad AC-Neuti aised An ost-Heav	dicators ined Le d 4B) Patterna on Wate Visible iic Posi quitard ral Tesi t Moun ve Hum	s (2 or mo eaves (Bs s (B10) er Table e e on Aeria tion (D2) (D3) t (D5) ds (D6) ((C2) al Imagery (C) (LRR A) (D7)
YDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Princludes ca	pGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar crustions: ter Present? Present? Present? pillary fringe)	observ s: f one required Yes Surface Yes Yes Yes Yes	ed. uired; che (B7) ce (B8) No No No No	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse xplain in R es):	es (B13) Odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Secon W Di Di Si Gi Si FA	adary Inc ater-Stai 4A, an ainage F y-Seaso aturation eomorph nallow Ad AC-Neuti aised An ost-Heav	dicators ined Le d 4B) Patterna on Wate Visible iic Posi quitard ral Tesi t Moun ve Hum	s (2 or mo eaves (Bs s (B10) er Table e e on Aeria tion (D2) (D3) t (D5) ds (D6) (Ore required) (C2) (C2) (Imagery (C)
YDROLO YDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Princludes ca	pGY drology Indicators cators (minimum of Water (A1)) ater Table (A2) on (A3) larks (B1) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca	observ s: f one required Yes Surface Yes Yes Yes Yes	ed. uired; che (B7) ce (B8) No No No No	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse xplain in R es):	es (B13) Odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Secon W Di Di Si Gi Si FA	adary Inc ater-Stai 4A, an ainage F y-Seaso aturation eomorph nallow Ad AC-Neuti aised An ost-Heav	dicators ined Le d 4B) Patterna on Wate Visible iic Posi quitard ral Tesi t Moun ve Hum	s (2 or mo eaves (Bs s (B10) er Table e e on Aeria tion (D2) (D3) t (D5) ds (D6) ((C2) al Imagery (C) (LRR A) (D7)
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P Includes ca Describe Re	pGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar crustions: ter Present? Present? Present? pillary fringe)	observ s: f one required Yes Surface Yes Yes Yes Yes	ed. uired; che (B7) ce (B8) No No No No No	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse xplain in R es):	es (B13) Odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Secon W Di Di Si Gi Si FA	adary Inc ater-Stai 4A, an ainage F y-Seaso aturation eomorph nallow Ad AC-Neuti aised An ost-Heav	dicators ined Le d 4B) Patterna on Wate Visible iic Posi quitard ral Tesi t Moun ve Hum	s (2 or mo eaves (Bs s (B10) er Table e e on Aeria tion (D2) (D3) t (D5) ds (D6) ((C2) al Imagery (C) (LRR A) (D7)
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P includes ca Describe Re	pGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar crustions: ter Present? Present? Present? pillary fringe)	observ s: f one required Yes Surface Yes Yes Yes Yes Yes Im gauge	ed. uired; che (B7) ce (B8) No No No No No No No No No No	eck all that app Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted co Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse xplain in R es):	es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A) Wetl	ts (C3)	Secor W Di Di Si GG Si Fr	adary Inc ater-Stai 4A, an rainage F ry-Seasc aturation eomorph nallow Ac AC-Neutr aised An ost-Heav	dicators ined Le d 4B) Pattern on Wate Visible ic Posi quitard ral Tesi t Moun ve Hum	s (2 or more eaves (88 s (810) er Table (e on Aeriation (D2) (D3) ds (D5) ds (D6) (nmocks (ore required) (C2) (C2) (Imagery (C) (LRR A) D7)

Project/Site: 1655.0001 / Schoultes Property		City/Count	_{y:} Marysv	rille / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-2
Investigator(s): Emily Swaim, Jon Pickett, Richard					
Landform (hillslope, terrace, etc.): Valley Floor		Local reli	ef (concave,	convex, none): None	Slope (%): 0
Subregion (LRR): A-2	Lat: 48	.141819		Long: -122.163288	Datum: WGS 84
Soil Map Unit Name: Custer fine sandy loam				NWI classificat	ion: None
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology sign	nificantly dist	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu			(If neede	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ⊠ No □			ne Sampled		_
Wetland Hydrology Present? Yes ☐ No 🗵		with	nin a Wetlar	nd? Yes ☐ No) X
Remarks: Not all three wetland criteria observed; only h	vydeophystia	vocatation	a and hydrid	a sails present Distract by	t typical Non watland
hydrology confirmed by groundwater monitor		vegetation	i and nyun	e sons present. Disked bu	t typicai. 1401i-wettand
VEGETATION – Use scientific names of plan	ts.				
T. 0. (DL.) (DL.)	Absolute			Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			Number of Dominant Spo That Are OBL, FACW, or	
2				Total Number of Domina	
3				Species Across All Strata	a: <u>2</u> (B)
4 (District Charles (District 45 ft)	0			Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 15 ft) 1				Prevalence Index work	sheet:
2.					Multiply by:
3					x 1 =
4				FACW species	x 2 =
5				FAC species	x 3 =
	0	= Total C	Cover	FACU species	x 4 =
Herb Stratum (Plot size: <u>5 ft</u>)	15	Voc	FACW	•	x 5 =
1. Viola glabella 2 Clover sp	5	Yes	FAC	Column Totals:	(A) (B)
3. Agrostis capillaris	3	No	FAC	Prevalence Index	= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	
6.				▼ Dominance Test is >	
7				☐ Prevalence Index is :	≤3.0 ¹
8					ations¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	• • • • • • • • • • • • • • • • • • • •
10				_	nytic Vegetation¹ (Explain)
11	23			* * *	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)		= Total C		be present, unless distur	bed or problematic.
1				Hydrophytic	
2	0			Vegetation Present? Yes	⊠ No □
% Bare Ground in Herb Stratum <u>77</u>	<u> </u>	= Total C	over	riesent: 168	⊕ NU []
Remarks: Hydrophytic vegetation criterion observ			nance toot	t indicator	
Trydrophytic vegetation circenon observ	voa unou(gii aoiiill	idiloe (63)	i maioator.	

Sampling Point: DP-2

Profile Desc Depth	Matrix				ox Feature					•
(inches)	Color (moist)	%	Colo	r (moist)	<u>%</u>	Type ¹	Loc ²	Textur	re	Remarks
0 - 11	10YR3/2	98	10	/R3/3	2	CS	M	SaLo	0	Very sandy gravelly
11 - 33	10Y 4/1	95	7.5	YR 4/6	5	CS	М	Sand	d	Coarse
		-								
	-							-		
	-									
	-									
	-	_								
			_							
1Type: C=C	oncentration, D=Dep	olotion F	- ——	uood Matrix C	S=Covere	d or Coat	ad Sand Cr	raina	21 000	ation: DI -Doro Liping M-Matrix
	Indicators: (Applic						eu Sanu Gi			ation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :
☐ Histosol		Jubic to		Sandy Redox (iou.,				Muck (A10)
	oipedon (A2)			Stripped Matrix	-					Parent Material (TF2)
☐ Black His				_oamy Mucky I	. ,	1) (excep	t MLRA 1)	_		Shallow Dark Surface (TF12)
	n Sulfide (A4)			_oamy Gleyed			,		-	(Explain in Remarks)
▼ Depleted	d Below Dark Surfac	e (A11)		Depleted Matri	x (F3)					
	ark Surface (A12)		☐ F	Redox Dark Su	ırface (F6))		³ 1		s of hydrophytic vegetation and
	lucky Mineral (S1)			Depleted Dark	•	- 7)				d hydrology must be present,
	Gleyed Matrix (S4)		I	Redox Depress	sions (F8)				unless	disturbed or problematic.
Type:	Layer (if present):									
	ches):			-						
	Ciles)							Hydr	ric Soil F	Present? Yes ⊠ No 🗌
Remarks:										
Hydric soil	criterion observ	ed thro	ugh A	11 indicator						
HYDROLO	GY									
Wetland Hy	drology Indicators	:								
Primary Indi	cators (minimum of	one requ	ired; che	eck all that app	oly)				Second	dary Indicators (2 or more required)
☐ Surface	Water (A1)			☐ Water-Sta	ined Leav	es (B9) (e	xcept MLR	RA	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (A2)			1, 2, 4	A, and 4E	3)				4A, and 4B)
■ Saturation	on (A3)			☐ Salt Crust	(B11)					inage Patterns (B10)
☐ Water M	arks (B1)			☐ Aquatic In	vertebrate	es (B13)			-	-Season Water Table (C2)
☐ Sedimer	nt Deposits (B2)			☐ Hydrogen	Sulfide O	dor (C1)			☐ Sat	turation Visible on Aerial Imagery (C9)
☐ Drift Dep	oosits (B3)					_	Living Roo	ts (C3)	☐ Ge	omorphic Position (D2)
-	at or Crust (B4)			☐ Presence	of Reduce	ed Iron (C	4)		☐ Sha	allow Aquitard (D3)
	oosits (B5)			☐ Recent Iro	n Reducti	on in Tille	d Soils (C6)	☐ FA	C-Neutral Test (D5)
☐ Surface	Soil Cracks (B6)			☐ Stunted o	r Stressed	Plants (D	1) (LRR A))		sed Ant Mounds (D6) (LRR A)
Inundation	on Visible on Aerial I			☐ Other (Ex	plain in Re	emarks)			☐ Fro	st-Heave Hummocks (D7)
	Vegetated Concave	e Surface	e (B8)							
Sparsely Field Obser										
	vations:	∕es □	No 🔀	Depth (inche						
Field Obser	rvations: ter Present?	∕es □	No ⊠ No □	Depth (inche	s): <u>9</u>					
Field Obser Surface Wat Water Table Saturation P	rvations: ter Present? Present?	∕es □ ∕es ☒			s): <u>9</u>		Wetl	and Hyd	drology	Present? Yes □ No ⊠
Field Obser Surface Wat Water Table Saturation P (includes ca	rvations: ter Present? Present? Present? pillary fringe)	∕es ☐ ∕es ☒ ∕es ☒	No 🗌 No 🗎	Depth (inche	s): <u>9</u> s): <u>6</u>	revious in		•		Present? Yes □ No ⊠
Field Obser Surface Wat Water Table Saturation P (includes ca	rvations: ter Present? Present?	∕es ☐ ∕es ☒ ∕es ☒	No 🗌 No 🗎	Depth (inche	s): <u>9</u> s): <u>6</u>	revious in		•		Present? Yes □ No ⊠
Field Obser Surface Wat Water Table Saturation P (includes ca	rvations: ter Present? Present? Present? pillary fringe)	∕es ☐ ∕es ☒ ∕es ☒	No 🗌 No 🗎	Depth (inche	s): <u>9</u> s): <u>6</u>	revious in		•		Present? Yes □ No ⊠
Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rvations: ter Present? Present? Present? Present? pillary fringe) tecorded Data (strean	∕es ☐ ∕es ☒ ∕es ☒ n gauge,	No No monitor	Depth (inche Depth (inche ing well, aerial	s): 9 s): 6 photos, p		spections),	if availa	able:	
Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re Remarks: Wetland h	rvations: der Present? Present? Present? pillary fringe) ecorded Data (stream	/es ☐ /es ☒ /es ☒ n gauge,	No No monitor	Depth (inche Depth (inche ing well, aerial ough A2 & A	s): 9 s): 6 photos, p	ary indic	spections), ators dur	if availa	able: on-grow	Present? Yes □ No ⊠ ring season at time of ation MP-2 indicated

Project/Site: 1655.0001 / Schoultes Property		City/C	ounty	. Marysv	rille / Snohomish	Samplir	ng Date: 03/0)1/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-		State: WA		-	
Investigator(s): Richard Peel, Emily Swaim				Section, To	ownship, Range: 28, 3	31, 05N		
Landform (hillslope, terrace, etc.): Valley floor							Slope (%	6): <u>0</u>
Subregion (LRR): A-2	Lat: 48.	1416	319	,	Long: -122.1666	5014	Datum: W	/GS 84
Soil Map Unit Name: Custer fine sandy loam					NWI classit			
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remark			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbec	d?	Are "No	ormal Circumstances" p	resent? Ye	es 🗵 No 🗌	
Are Vegetation, Soil, or Hydrology natu	-			(If need	ed, explain any answer	s in Remark	(s.)	
SUMMARY OF FINDINGS – Attach site map				g point l	ocations, transec	ts, impor	tant featur	es, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵								
Hydric Soil Present? Yes ☒ No ☐				e Sampled		N. 64		
Wetland Hydrology Present? Yes ☐ No 🗵			with	in a Wetlar	nd? Yes □	No 🔀		
Remarks: Not all three wetland criteria observed, only study.	hydric soil p	presen	nt. No	on-wetland	hydrology confirmed	by groundw	vater monitor	ing
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			Indicator	Dominance Test wo			
1		-			Number of Dominant That Are OBL, FACW		0	(A)
2.								- ()
3					Total Number of Dom Species Across All S		2	_ (B)
4					Percent of Dominant	Species		
Capling/Chrub Stratum (Diet size: 45 ft)	0	= To	otal Co	over	That Are OBL, FACV		0%	_ (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft) 1					Prevalence Index w	orksheet:		
2.					Total % Cover of		Multiply by:	
3.							1 = 0	
4					FACW species 0	x	2 = 0	
5							3 = 0	
	0	= To	otal Co	over	FACU species 20			_
Herb Stratum (Plot size: <u>5 ft)</u> 1. Trifolium pratense	20	Ye	9	FACII	·	X		
2. Geranium molle	10	Ye		UPL	Column Totals: 30	(A)) 130	(B)
3			_		Prevalence Ind	ex = B/A =	4.33	
4.					Hydrophytic Vegeta	tion Indica	tors:	
5					☐ Rapid Test for Hy	/drophytic V	egetation	
6					☐ Dominance Test	is >50%		
7					☐ Prevalence Index	t is ≤3.0¹		
8					☐ Morphological Ac		Provide suppo separate shee	
9					☐ Wetland Non-Vas		•	;t)
10					☐ Problematic Hydr			ain)
11					¹Indicators of hydric s	. , .	, , ,	,
Woody Vine Stratum (Plot size: 30 ft)	30	= Tc	otal Co	over	be present, unless di			
1		. —			Hydrophytic			
2	0				Vegetation	Voc □ N-	, IVI	
% Bare Ground in Herb Stratum 70	<u> </u>	= 10	otal Co	over	Present?	Yes ∐ No	×	
Remarks: No hydrophytic vegetation indicators o	bearyad				1			
ino nyaropnytic vegetation maicators o	iDSEI VEU.							

Depth	Matrix			Red	lox Featur	es				
(inches)	Color (moist)	%	Colo	or (moist)	<u>%</u>	Type ¹	Loc ²	Textur	e	<u>Remarks</u>
0 - 11	10YR 3/2	100						SaLo)	
11 - 20	5y 4/1	98	7.5	yr 4/6	2	CS	M	LoSa		
20 - 24	10Y 6/1	93	7.5	yr 4/6	7	С	М	SiCII	_0	
24 - 30	5y 4/2	90	7.5	yr 4/6	10	CS	M	LoSa	<u> </u>	
										
								-	 .	
	Concentration, D=De						ed Sand Gr			ation: PL=Pore Lining, M=Matrix.
-	Indicators: (Appl	icable to				oted.)				s for Problematic Hydric Soils ³ :
Histosol	, ,			Sandy Redox				_		Muck (A10)
	pipedon (A2)			Stripped Matrix	. ,	-4\ /				Parent Material (TF2)
	istic (A3)			Loamy Mucky			t MLRA 1)		-	Shallow Dark Surface (TF12)
	en Sulfide (A4) d Below Dark Surfa	00 (111)		Loamy Gleyed	•	2)			Otner	(Explain in Remarks)
	d Беюw Dark Suna ark Surface (A12)	ice (ATT)		Depleted Matri Redox Dark Si		1		31,	ndicator	s of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark	•	•		"		d hydrology must be present,
	Gleyed Matrix (S4)			Redox Depres		-				disturbed or problematic.
-	Layer (if present):			todox 2 op. oo	(. 0)	'		1	41.11000	
Type:	,			_						
Depth (in	nches):			-				Hydri	c Soil F	Present? Yes ⊠ No □
Remarks:								,		
	المعام معادما	سطاة امصر	۸ ماست	44 indianta	_					
Hydric soil	I criterion obser	vea thr	bugn A	11 indicator	ſ .					
Wetland Hy	drology Indicator								-	
Wetland Hy Primary Indi	drology Indicator		uired; che							dary Indicators (2 or more required)
Wetland Hy Primary Indi ☐ Surface	ydrology Indicator icators (minimum of Water (A1)		uired; che	☐ Water-Sta	ained Lea		except MLF	RA	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Indi ☐ Surface ☑ High Wa	rdrology Indicator icators (minimum of Water (A1) ater Table (A2)		uired; che	☐ Water-Sta	ained Lea 4 A, and 4 l		except MLR	RA	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hy Primary Indi ☐ Surface ☑ High Wa ☑ Saturation	rdrology Indicator: icators (minimum of Water (A1) ater Table (A2) on (A3)		uired; che	☐ Water-Sta 1, 2, 4 ☐ Salt Crus	ained Lea 4A, and 4 l t (B11)	В)	except MLR	RA	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) inage Patterns (B10)
Wetland Hy Primary Indi ☐ Surface ☑ High Wa ☑ Saturatic ☐ Water M	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1)		uired; che	☐ Water-Sta 1, 2, 4 ☐ Salt Crus ☐ Aquatic Ir	ained Lea 1A, and 4 I t (B11) nvertebrat	B) es (B13)	except MLF		☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2)
Wetland Hy Primary Indi ☐ Surface ☒ High Wa ☒ Saturatio ☐ Water M ☐ Sedimen	vdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)		uired; che	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger	ained Lear 4A, and 4l t (B11) nvertebrat n Sulfide C	es (B13) Odor (C1)			☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) inage Patterns (B10)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3)		uired; che	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized	ained Lear 4A, and 4I t (B11) nvertebrate Sulfide C Rhizospho	es (B13) Odor (C1) eres along	Living Roo		☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) uinage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	vdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)		uired; cho	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Lear 4A, and 4I t (B11) nvertebrate Sulfide C Rhizosphe of Reduce	es (B13) Odor (C1) eres along ed Iron (C	Living Roo 4)	ts (C3)	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) unage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9) omorphic Position (D2) allow Aquitard (D3)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	vidrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		uired; cho	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir	ained Lear 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct	es (B13) Odor (C1) eres along ed Iron (C	Living Roo 4) d Soils (C6	ts (C3)	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) uinage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	rdrology Indicator: icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; che	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir	ained Lear 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct	es (B13) Odor (C1) eres along ed Iron (C	Living Roo 4)	ts (C3)	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) unage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9) omorphic Position (D2) allow Aquitard (D3)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	vidrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	f one requ		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o	ained Lear 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct	es (B13) Odor (C1) eres along ed Iron (Cition in Tille d Plants (Cition)	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) uninage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) morphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	f one requ	(B7)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of	ained Lear 4A, and 4I t (B11) nvertebrat Sulfide C Rhizospho of Reduct on Reduct or Stressed	es (B13) Odor (C1) eres along ed Iron (Cition in Tille d Plants (Cition)	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) unage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
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Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	vidrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	f one requ	(B7)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lear 4A, and 4I t (B11) nvertebrat n Sulfide C Rhizospho e of Reduct on Reduct or Stressed xplain in R	es (B13) Odor (C1) eres along ed Iron (Cition in Tille d Plants (Cition)	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) unage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concar rvations: ter Present?	f one requ I Imagery ve Surfac	(B7) be (B8)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of	ained Lear 4A, and 4I t (B11) nvertebrat n Sulfide C Rhizospho e of Reduct on Reduct or Stressed xplain in R	es (B13) Odor (C1) eres along ed Iron (Cition in Tille d Plants (Cition)	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sat Gee Sha	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) unage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concar rvations: ter Present? Present?	f one requ I Imagery ve Surfac	e (B7) ce (B8) No ⊠	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lear 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizospho e of Reduct on Reduct or Stressed xplain in R es):	es (B13) Odor (C1) eres along ed Iron (Cition in Tille d Plants (Cition)	Living Roo 4) d Soils (C6 01) (LRR A)	ts (C3)	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) unage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concar rvations: ter Present? Present? pipillary fringe)	I Imagery ve Surfac Yes □ Yes ☒ Yes ☒ Yes ☒	No 🗵 No 🗆	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lear 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizospho e of Reduct on Reduct or Stressed xplain in R es): 12 es): 7	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C- emarks)	Living Roo 4) d Soils (C6 01) (LRR A)	ts (C3)	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Ge ☐ Sha ☐ FAI ☐ Rai ☐ Fro	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) inage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concar rvations: ter Present? Present?	I Imagery ve Surfac Yes □ Yes ☒ Yes ☒ Yes ☒	No 🗵 No 🗆	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lear 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizospho e of Reduct on Reduct or Stressed xplain in R es): 12 es): 7	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C- emarks)	Living Roo 4) d Soils (C6 01) (LRR A)	ts (C3)	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Ge ☐ Sha ☐ FAI ☐ Rai ☐ Fro	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) inage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
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Wetland Hy Primary Indi Surface High Water M Sedimer Drift Dep Algal Mater M Iron Dep Iron Dep Surface Inundation Sparsely Field Obser Surface Water Table Saturation P (includes ca Describe Re	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concarvations: ter Present? Present? pillary fringe) ecorded Data (streat	I Imagery ve Surfac Yes ☑ Yes ☒ Yes ☒	No 🔀 No 🖸 No 🗆 No 🗆	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lear 4A, and 4I t (B11) nvertebrate Sulfide C Rhizospho of Reduct on Reduct or Stressed xplain in R es):	es (B13) Ddor (C1) eres along ed Iron (C- tion in Tille d Plants (C- emarks)	Living Roo 4) d Soils (C6 01) (LRR A) Weth	ts (C3)) and Hyd if availal	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Ge ☐ Sha ☐ FAG ☐ Fro	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) sinage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P (includes ca Describe Re Remarks: Wetland h	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concar rvations: ter Present? Present? pillary fringe) ecorded Data (streat	I Imagery ve Surface Yes ☑ Yes ☑ Yes ☑ m gauge	No 🗵 No 🗆 No 🗆 , monitor	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lear 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizospho e of Reduct on Reduct or Stressed xplain in R es): 12 es): 1 photos, p	es (B13) Dodor (C1) eres along ed Iron (C- tion in Tille d Plants (C- emarks) previous in	Living Roo 4) d Soils (C6 01) (LRR A) Wetla spections),	ts (C3)) and Hyd if availal	☐ Wa ☐ Dra ☐ Dry ☐ Sat ☐ Ge ☐ Sha ☐ FAI ☐ Rai ☐ Fro	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) inage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/C	County	. Marysv	rille / Snohomish	Sampling	g Date: 03/0)2/2018
Applicant/Owner: Columbia Bank / Rob Draper		•			State: WA	Samplino	g Point: DP	-21
Investigator(s): Emily Swaim, Richard Peel				Section, To	ownship, Range: 28, 3	1, 05N		
Landform (hillslope, terrace, etc.): Valley Floor							Slope (%	6): 0
Subregion (LRR): A-2				•	,			
Soil Map Unit Name: Custer fine sandy loam					NWI classific			
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remarks			
Are Vegetation, Soil, or Hydrology sign	-			•	ormal Circumstances" pr	•	s⊠ No□]
Are Vegetation, Soil, or Hydrology natu					ed, explain any answers			
SUMMARY OF FINDINGS – Attach site map								es, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵								
Hydric Soil Present? Yes ☐ No 🗵				e Sampled		=		
Wetland Hydrology Present? Yes ☐ No ☒			withi	in a Wetlar	nd? Yes 🗌	No 🔀		
Remarks:	NT .	.1 1	. 1	1	C" 11 1		•, •	. 1
No wetland criteria observed; disked.	Non-wet	lland	hya	rology co	onfirmed by ground	water mo	nitoring s	tudy.
VEGETATION – Use scientific names of plan	ts.							
7 0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (Absolute			Indicator	Dominance Test wor	ksheet:		
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dominant S That Are OBL, FACW,		0	_ (A)
2					Total Number of Domi	nant		
3					Species Across All Str	ata: _	1	_ (B)
4	0	= T	otal Co	over	Percent of Dominant S That Are OBL, FACW,		0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft)								
1					Prevalence Index wo		Multiply by	
2					Total % Cover of: OBL species 0		= <u>0</u>	
3					FACW species 0			
4							0	
0	_	= To	otal Co	over	FACU species 5			
Herb Stratum (Plot size: 5 ft)					·		i = 0	
1. Festuca idahoensis	5				Column Totals: 5			(B)
2					Prevalence Inde	v - Β/Δ -	4	
3					Hydrophytic Vegetat			
4. 5.					Rapid Test for Hyd			
6					☐ Dominance Test is		3	
7					☐ Prevalence Index	is ≤3.0¹		
8					☐ Morphological Ada	aptations¹ (P	rovide supp	orting
9.					data in Remark		•	et)
10					Wetland Non-Vaso			
11.					☐ Problematic Hydro	. , .		,
Woody Vine Stratum (Plot size: 30 ft)	5	= T	otal Co	over	¹ Indicators of hydric so be present, unless dis			/ must
1					Hydrophytic			
2					Vegetation	_	_	
% Bare Ground in Herb Stratum 95	0	= T	otal Co	over	Present? Y	es 🗌 No	×	
					1			
Remarks: No hydrophytic vegetation indicators o	bserved.							

nches)	Color (moist)	%		r (moist)	%	Type ¹		Textu		<u>Remarks</u>	
- 11	10YR 3/2	99	10	YR 3/6	1	С	PL	SaL	0		
1 - 18	2.5Y 4/2	98	2.5	Y 4/4	2	CS	М	San	d	Coarse	
3 - 30	2.5Y 3/2	98	2.5	Y 4/4	2	CS	М	San	d	Very coarse	
	Concentration, D=D Indicators: (App						ed Sand G			cation: PL=Pore Lining, M=Mater rs for Problematic Hydric Soi	
Histosol				Sandy Redox		,				Muck (A10)	
	pipedon (A2)			Stripped Matr						Parent Material (TF2)	
	istic (A3)			_oamy Mucky	. ,	F1) (excep	t MLRA 1)			Shallow Dark Surface (TF12)	
Hydroge	en Sulfide (A4)			_oamy Gleye			,		-	r (Explain in Remarks)	
	d Below Dark Surfa	ace (A11)		Depleted Mat	rix (F3)						
	ark Surface (A12)		☐ F	Redox Dark S	Surface (F	6)		³ l		rs of hydrophytic vegetation and	d
-	/lucky Mineral (S1))		Depleted Dar		. ,				nd hydrology must be present,	
	Gleyed Matrix (S4)		<u></u>	Redox Depre	ssions (F8	3)			unles	s disturbed or problematic.	
	Layer (if present)										
Type:											
										D	
narks: hydric	soils indicators							Hydr	ic Soil	Present? Yes □ No ⊠	
marks: hydric	soils indicators	observ						Hydr	ic Soil	Present? Yes No 🗵	
marks: hydric DROLO	soils indicators	observ	ed.		pply)			Hydr		ndary Indicators (2 or more requ	uired)
marks: hydric DROLO otland Hy mary Indi	soils indicators	observ	ed.			aves (B9) (except MLI		Secor		
marks: hydric DROLO etland Hy mary Indi Surface	soils indicators OGY rdrology Indicator icators (minimum c	observ	ed.	eck all that ap □ Water-S		, , ,	except MLI		Secor	ndary Indicators (2 or more requ	
narks: hydric DROLO tland Hy mary Indi Surface High Wa	Soils indicators OGY vdrology Indicator icators (minimum of Water (A1) ater Table (A2)	observ	ed.	eck all that ap □ Water-S	tained Lea	, , ,	except MLI		Secon	ndary Indicators (2 or more requater-Stained Leaves (B9) (MLR	
DROLO tland Hy mary Indi Surface High Wa Saturatio	Soils indicators OGY vdrology Indicator icators (minimum of Water (A1) ater Table (A2)	observ	ed.	eck all that ap □ Water-S 1, 2,	tained Lea 4A, and 4 st (B11)	4B)	except MLI		Secon W	ndary Indicators (2 or more requ ater-Stained Leaves (B9) (MLR 4A, and 4B)	
DROLO Itland Hy mary Indi Surface High Wa Saturatio Water M	OGY vdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	observ	ed.	eck all that ap ☐ Water-S 1, 2, ☐ Salt Cru	tained Lea 4A , and 4 st (B11) Invertebra	4B) ates (B13)	except MLI		Secon W	ndary Indicators (2 or more requ ater-Stained Leaves (B9) (MLR 4A, and 4B) rainage Patterns (B10)	A 1,
DROLO DROLO Itland Hy mary Indi Surface High Wa Saturatic Water M Sedimer	Soils indicators OGY Idrology Indicators Cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)	observ	ed.	eck all that ap Water-S 1, 2, Salt Crus Aquatic	tained Lea 4A, and 4 st (B11) Invertebra n Sulfide	4B) ates (B13)	·	RA	Secor W Dr Dr	ndary Indicators (2 or more requater-Stained Leaves (B9) (MLR 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)	A 1,
DROLO tland Hy mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	oGY rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)	observ	ed.	eck all that ap Water-S 1, 2, Salt Crus Aquatic Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebra n Sulfide Rhizosph	tes (B13) Odor (C1)	Living Roc	RA	Secon W Dr Dr Sa Ge	ndary Indicators (2 or more requ ater-Stained Leaves (B9) (MLR 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image	A 1,
DROLO Stland Hy mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	or soils indicators or o	observ	ed.	eck all that ap Water-S 1, 2, Salt Crue Aquatic Hydroge Oxidized Presenc	tained Lea 4A, and 4 st (B11) Invertebra Invertebra Rulfide Rhizosphe of Redu	tes (B13) Odor (C1) neres along	Living Roo 4)	RA ots (C3)	Secon W Dr Dr Sa Ge	ndary Indicators (2 or more requ ater-Stained Leaves (B9) (MLR 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2)	A 1,
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DROLO tland Hy mary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or (A2) on (A3) darks (B1) nt Deposits (B3) at or Crust (B4) posits (B5)	rs:	ed.	eck all that ap Water-S 1, 2, Aquatic Hydroge Oxidized Presenc Recent I Stunted	tained Lea 4A, and 4 st (B11) Invertebra n Sulfide I Rhizosph e of Redu ron Redu	ttes (B13) Odor (C1) neres along ced Iron (C ction in Tille ed Plants (E	Living Roo 4) ed Soils (C6	RA ots (C3)	Secon W Dr Dr Sa Ge St FA Ra	adary Indicators (2 or more requater-Stained Leaves (B9) (MLR 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)	ery (C
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marks: hydric by the properties of the propertie	Soils indicators OGY Indrology Indicators Indicators (minimum of the content o	rs: of one requare Surface Yes Yes Yes Yes Yes Yes Yes X	ed. uired; che (B7) ce (B8) No No No No No No No No No No	eck all that ap Water-S 1, 2, Salt Crust Aquatic Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide In Rhizosph In Reduction Reduction Reduction Reduction Reduction Reduction Reduction Stresses (See See See See See See See See See Se	ttes (B13) Odor (C1) neres along ced Iron (C ction in Tille ed Plants (E Remarks)	Living Roc 4) ed Soils (C6 01) (LRR A	RA ots (C3) i)	Secon W Dr Dr Sa GG Sr Ra FA	adary Indicators (2 or more requater-Stained Leaves (B9) (MLR 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)	A 1 , 2
DROLO Itland Hy mary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Id Observation Feduces ca	Soils indicators OGY Indrology Indicators Indicators (minimum of Mater (A1) Inter Table (A2) Intrology Indicators Intrology Intrology	rs: of one requare Surface Yes Yes Yes Yes Yes Yes Yes X	ed. uired; che (B7) ce (B8) No No No No No No No No No No	eck all that ap Water-S 1, 2, Salt Crust Aquatic Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide In Rhizosph In Reduction Reduction Reduction Reduction Reduction Reduction Reduction Stresses (See See See See See See See See See Se	ttes (B13) Odor (C1) neres along ced Iron (C ction in Tille ed Plants (E Remarks)	Living Roc 4) ed Soils (C6 01) (LRR A	RA ots (C3) i)	Secon W Dr Dr Sa GG Sr Ra FA	adary Indicators (2 or more requater-Stained Leaves (B9) (MLR 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)	A 1 , :

Project/Site: 1655.0001 / Schoultes Property		City/C	county:	Marysv	ille / Snohomish	Sampling	g Date: 03/0	2/2018
Applicant/Owner: Columbia Bank / Rob Draper		•			State: WA	Samplin	g Point: DP	-22
Investigator(s): Richard Peel, Emily Swaim			s	Section, To	wnship, Range: 28, 3	1, 05N		
Landform (hillslope, terrace, etc.): Valley Floor		_Loca	al relief	(concave,	convex, none): Conc	ave	Slope (%	6): <u>0</u>
Subregion (LRR): A-2	_ Lat: 48	.143	741		Long: -122.16417	046	Datum: W	/GS 84
Soil Map Unit Name: Custer fine sandy loam					NWI classif			
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remarks			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbec	d?	Are "No	ormal Circumstances" p	resent? Yes	s 🗷 No 🗌	
Are Vegetation, Soil, or Hydrology natu	ırally probler	matic?	?	(If neede	ed, explain any answers	in Remarks	s.)	
SUMMARY OF FINDINGS - Attach site map	showing	sam	pling	point lo	ocations, transect	s, import	ant featur	es, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				Sampled		N. SZ		
Wetland Hydrology Present? Yes ☐ No 🗵			withir	n a Wetlan	id? Yes 🗌	No 🔀		
Remarks: Not all three wetland criteria observed, only h monitoring study.	nydrophytic	veget	tation j	present. N	on-wetland hydrology	confirmed l	by groundwa	ater
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			Indicator	Dominance Test wo			
1					Number of Dominant That Are OBL, FACW		1	(A)
2.						_		. ()
3					Total Number of Dom Species Across All St		1	(B)
4					Percent of Dominant	Snecies		
Capling/Chrub Stratum (Diet size: 45 ft)	0	= To	otal Co	ver	That Are OBL, FACW		100%	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft) 1					Prevalence Index wo	orksheet:		
2.					Total % Cover of		Multiply by:	
3.					· ·		= 0	
4					FACW species 0			
5							= 30	
	0	= To	otal Co	ver	FACU species 0			
Herb Stratum (Plot size: <u>5 ft)</u> 1. Fescue	10	Ye	9	FAC:	·	x 5		
1. 1 escue 2					Column Totals: 10	(A)	30	(B)
3.					Prevalence Inde	ex = B/A = _	3	
4				_	Hydrophytic Vegeta	ion Indicato	ors:	
5.					☐ Rapid Test for Hy	drophytic Ve	getation	
6					■ Dominance Test i	s >50%		
7					▼ Prevalence Index	is ≤3.0¹		
8					☐ Morphological Ad			
9					data in Remar ☐ Wetland Non-Vas		•	L)
10					☐ Problematic Hydro			ain)
11		·			¹ Indicators of hydric s	. , .	` '	,
Woody Vine Stratum (Plot size: 30 ft)	10	_ = Tc	otal Co	ver	be present, unless dis			
1					Hydrophytic			
2					Vegetation			
% Bare Ground in Herb Stratum 90	0	_ = Tc	otal Co	ver	Present? Y	'es ⊠ No		
<u> </u>	ط الم مر	ا ماد			indiant			
Remarks: Hydrophytic vegetation criterion observation	vea inrou	gn ac	מחווזכ	ince test	indicator.			

Sampling Point: DP-22

Depth inches)	Matrix Color (moist)	%	Colo	Re r (moist)	dox Featu %	<u>res</u> Type¹	Loc ²	Texture	_	Remarks	
) - 15	10YR 3/2	99		y 5/4	1	C Type	PL, M	SaLo		Remains	
15 - 24	2.5y 4/2	98		yr 4/6	·	CS	<u>M</u>	Sand		Coarse	
				-				-			
24 - 30	5y 4/2	98	_ 101	/R 3/6	2	CS	M, PL	Sand	<u> </u>	Coarse	
									21		
	oncentration, D=D Indicators: (App						ed Sand Gi			ation: PL=Pore Lining, M=N s for Problematic Hydric \$	
Histosol				Sandy Redox		,				Muck (A10)	
	oipedon (A2)			Stripped Matr				\Box		Parent Material (TF2)	
Black Hi				_oamy Mucky	. ,	F1) (excep	t MLRA 1)			Shallow Dark Surface (TF12	<u>'</u>)
	en Sulfide (A4)			oamy Gleye			,		-	(Explain in Remarks)	
Depleted	d Below Dark Surfa	ace (A11)		Depleted Mat	rix (F3)						
Thick Da	ark Surface (A12)		□ F	Redox Dark S	Surface (F6	3)		³In		s of hydrophytic vegetation	
-	lucky Mineral (S1)			Depleted Darl		. ,				d hydrology must be preser	ıt,
	Sleyed Matrix (S4)		F	Redox Depres	ssions (F8	5)			unless	disturbed or problematic.	
	Layer (if present)	:									
Type:				•							
										Present? Yes 🗌 No 🗵	1
emarks:	soils indicators							Hydrid	c Soil I	Tesent? Tes NO K	<u> </u>
emarks: o hydric :	soils indicators	observ						Hydrid	c Soil I	Tesent? Tes NO K	
emarks: hydric s TDROLO Tetland Hy	soils indicators	observ	ed.	eck all that ap	oply)					dary Indicators (2 or more re	
emarks: hydric s DROLO etland Hy rimary India	soils indicators OGY drology Indicator cators (minimum o	observ	ed. uired; che	eck all that ap ☐ Water-S		aves (B9) (c	except MLF		Second	dary Indicators (2 or more re	equired)
emarks: D hydric : O hydric	soils indicators GY drology Indicator	observ	ed. uired; che	☐ Water-S		. , .	except MLF		Second		equired)
DROLO etland Hy imary India Surface High Wa	or soils indicators OGY Ordrology Indicator Cators (minimum of the cators (Minimum of the cators) Water (A1) After Table (A2)	observ	ed. uired; che	☐ Water-S	tained Lea	. , .	except MLF		Second	dary Indicators (2 or more re ster-Stained Leaves (B9) (M	equired)
emarks: O hydric s 'DROLO 'etland Hy rimary India] Surface] High Wa [] Saturation	or soils indicators OGY Ordrology Indicator Cators (minimum of the cators (Minimum of the cators) Water (A1) After Table (A2)	observ	ed. uired; che	☐ Water-Single 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	lB)	except MLF	RA	Second Wa	dary Indicators (2 or more re tter-Stained Leaves (B9) (M 4A, and 4B)	equired)
POROLO PO	oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)	observ	ed. uired; che	☐ Water-Single	tained Lea 4A, and 4 st (B11) Invertebrat	tes (B13)	except MLF	RA	Second Wa Dra	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)	equired)
emarks: D hydric s O hydric s	or (A1) ater Table (A2) bon (A3) larks (B1) at Deposits (B2)	observ	ed. uired; che	Water-Single 1, 2, Salt Crust Aquatic In Hydroge	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (tes (B13) Odor (C1)	·	RA	Secono Wa Dra Dry Sar	dary Indicators (2 or more re ter-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Ima	equired)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	or (A3) larks (B1) nt Deposits (B2) posits (B3)	observ	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph	tes (B13) Odor (C1) neres along	Living Roo	RA	Second Wa Dra Dra Dry Sat	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Ima	equired)
TDROLO Tetland Hyrimary India Surface High Wa Saturatio Water M Sedimer Drift Dep	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	observ	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph e of Reduc	tes (B13) Odor (C1) heres along ced Iron (C	Living Roo 4)	RA tts (C3)	Secono Wa Dra Dry Sar	dary Indicators (2 or more rester-Stained Leaves (B9) (M4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagement (D2) allow Aquitard (D3)	equired)
rDROLO retland Hy rimary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	observ	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph e of Reduct ron Reduct	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6	RA tts (C3)	Second Water Dra Dry Sar Ge Sha	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) (-Season Water Table (C2) turation Visible on Aerial Image omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	equired) LRA 1, 2
TDROLO Tetland Hy rimary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or cators (minimum or cators (mi	observers:	ed.	Water-St. 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4)	RA tts (C3)	Second Dra Dra Sai Ge Shai FA	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imalomorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	equired) LRA 1, 2
**TOROLO PROLO PRO	or Crust (B4) cosits (B5) soils indicators reactors (minimum or cators (B1) or (A3) larks (B1) or (B2) cosits (B3) at or Crust (B4) cosits (B5) soil Cracks (B6) on Visible on Aeria	observers: If one requested in the second s	ed. uired; che	Water-St. 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph e of Reduct ron Reduct	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4) d Soils (C6	RA tts (C3)	Second Dra Dra Sai Ge Shai FA	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) (-Season Water Table (C2) turation Visible on Aerial Image omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	equired) LRA 1, 2
Primary India Surface High Wa Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Conca	observers: If one requested in the second s	ed. uired; che	Water-St. 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4) d Soils (C6	RA tts (C3)	Second Dra Dra Sai Ge Shai FA	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imalomorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	equired) LRA 1, 2
Primary India Surface Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria v Vegetated Conca	observers: If one required in the servers of the s	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduc ron Reduc or Stresse xplain in R	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4) d Soils (C6	RA tts (C3)	Second Dra Dra Sai Ge Shai FA	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imalomorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	equired) LRA 1, 2
Properties of hydric state of	pGY drology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar crustions: ter Present?	observers: If one required the surface of the surf	ed. uired; che (B7) ce (B8)	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduc ron Reduc or Stresse xplain in F	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4) d Soils (C6	RA tts (C3)	Second Dra Dra Sai Ge Shai FA	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imalomorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	equired) LRA 1, 2
emarks: O hydric s O hydria s O h	pGY drology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concators ter Present? Present?	observers: If one required in the servers of the s	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduc or Reduc or Stresse xplain in F	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4) d Soils (C6 11) (LRR A)	RA tts (C3)	Second Was Dra Dry Sal Ge Shal	dary Indicators (2 or more rester-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imalomorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	equired) LRA 1, 2 agery (C
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Project/Site: 1655.0001 / Schoultes Property		City/C	ounty:	Marysv	ille / Snohomish	Samp	oling Date: 03/0	02/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-		State: WA		_	
Investigator(s): Richard Peel, Emily Swaim			s	Section, To	wnship, Range: 28, 3	31, 05N		
Landform (hillslope, terrace, etc.): Valley Floor		_Loca	ıl relief	(concave,	convex, none): Conc	cave	Slope (%): <u>0</u>
Subregion (LRR): A-2	_ _{Lat:} 48.	1437	'48		Long: -122.1656	3707	Datum: V	NGS 84
Soil Map Unit Name: Norma Ioam					NWI classi			
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remark			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbec	1?	Are "No	ormal Circumstances" p	resent?	Yes ⊠ No []
Are Vegetation, Soil, or Hydrology natu				(If neede	ed, explain any answer	s in Rema	arks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sam	pling	point lo	ocations, transec	ts, impo	ortant featu	res, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				Sampled		N. Ed		
Wetland Hydrology Present? Yes ☐ No ☒			withir	n a Wetlan	ıd? Yes □	No 🔀		
Remarks: Not all three wetland criteria observed, only be monitoring study.	nydrophytic	veget	tation j	present. N	on-wetland hydrolog	y confirme	ed by groundw	vater
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			Indicator Status	Dominance Test wo			
1					Number of Dominant That Are OBL, FACV		1	_ (A)
2.								_
3					Total Number of Don Species Across All S		1	_ (B)
4					Percent of Dominant	Snecies		
Copling/Shrub Stratum (Dlot size: 15 ft)	0	_ = Tc	otal Co	ver	That Are OBL, FACV		100%	_ (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft) 1					Prevalence Index w	orksheet:		
2.					Total % Cover of			<u>.</u>
3.					OBL species 0		x 1 = 0	
4					FACW species 0			
5							x 3 = <u>30</u>	
	0	= To	otal Co	ver	FACU species 0		x 4 = <u>0</u>	
Herb Stratum (Plot size: <u>5 ft)</u> 1. Fescue	10	Vρ	c	FAC	·		•	
1. 1 escue 2					Column Totals: 10	((A) <u>30</u>	(B)
3					Prevalence Ind	ex = B/A :	= 3	
4.					Hydrophytic Vegeta			
5					☐ Rapid Test for Hy	ydrophytic	Vegetation	
6.					▼ Dominance Test	is >50%		
7					▼ Prevalence Index	< is ≤3.0¹		
8					☐ Morphological Ac			
9							a separate she	et)
10					☐ Wetland Non-Vas			alain)
11					☐ Problematic Hydric solution of hydric solutions			•
Woody Vine Stratum (Plot size: 30 ft)	10	= To	otal Co	ver	be present, unless di			
1					Hydrophytic			
2	0				Vegetation Present?	Yes ⊠ N	No 🗆	
% Bare Ground in Herb Stratum 90		_ = 10	otal Co	ver	FIESEIR	ico 🔼 🖺	10 🗆	
Remarks: Hydrophytic vegetation criterion obser	ved throug	ah da	nmina	ance test	indicator: *I Inidor	ntified ar	acc charing	
assumed to be facultative for scoring p			JI I II I I C	4110C (CS	maioator, Officer	uneu gl	ass species	

Depth	Matrix			Red	dox Featur						
(inches)	Color (moist)	%_		or (moist)	%	Type ¹	Loc ²	Textur		<u>Remarks</u>	
0 - 4	10YR 3/3	99		YR 3/6	1	_ <u>C</u>	PL	SaLo			
4 - 16	5y 3/2	99		4/6	1	CS	PL	Sand		Coarse	
16 - 24	5gy 4/1	97	2.5	yr 3/6	3	CS	PL, M	Sand	k	Coarse	
24 - 30	10Y 4/1	98	7.5	yr 3/2	2	CS	PL, M	Sand	t	Coarse	
	•										
	•										
	•										
	Concentration, D=D Indicators: (App						ed Sand Gr			ation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :	
☐ Histosol		iicabie ic				neu.)				Muck (A10)	
	pipedon (A2)			Sandy Redox Stripped Matri						Parent Material (TF2)	
☐ Black Hi				Loamy Mucky	` '	1) (except	t MLRA 1)			Shallow Dark Surface (TF12)	
	en Sulfide (A4)			Loamy Gleye	•	,	,		-	(Explain in Remarks)	
☐ Depleted	d Below Dark Surfa	ace (A11)		Depleted Matı							
	ark Surface (A12)			Redox Dark S	•	•		³ lr		s of hydrophytic vegetation and	
-	Mucky Mineral (S1)			Depleted Darl						d hydrology must be present,	
	Bleyed Matrix (S4) Layer (if present)			Redox Depres	ssions (F8)		1	unless	disturbed or problematic.	
Type:	, , ,										
	 nches):							1			
				-				Hydri	c Soil I	Present? Yes ☐ No 🗵	
Remarks:		_									
No hydric :	soils indicators	observ	ed.								
HYDROLO	OGY										
Wetland Hy	drology Indicator										
Wetland Hy			uired; ch	eck all that ap	oply)				Second	dary Indicators (2 or more required)	<u> </u>
Wetland Hy Primary India	rdrology Indicator cators (minimum c Water (A1)		uired; ch	☐ Water-St	tained Lea		xcept MLF	RA		ater-Stained Leaves (B9) (MLRA 1,	
Wetland Hy Primary India Surface High Wa	rdrology Indicator icators (minimum c Water (A1) ater Table (A2)		uired; ch	☐ Water-St	tained Lea 4A, and 4		except MLF	RA	☐ Wa	nter-Stained Leaves (B9) (MLRA 1, 4A, and 4B)	
Wetland Hy Primary India □ Surface □ High Wa □ Saturatio	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3)		uired; ch	☐ Water-St 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	В)	xcept MLF	RA	☐ Wa	nter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10)	
Wetland Hy Primary India Surface High Wa Saturatio Water M	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) farks (B1)		uired; ch	☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	tained Lea 4A, and 4 st (B11) Invertebrat	B) es (B13)	except MLF		☐ Wa	tter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) -Season Water Table (C2)	, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)		uired; ch	☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I ☐ Hydroge	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (es (B13) Odor (C1)			☐ Wa	nter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) ant Deposits (B2) posits (B3)		uired; ch	Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I	es (B13) Odor (C1) eres along	Living Roo		☐ Wa	tter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2)	_ , 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) int Deposits (B2) posits (B3) at or Crust (B4)		uired; ch	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide C Rhizosph e of Reduc	es (B13) Odor (C1) eres along ed Iron (C4	Living Roo 4)	ts (C3)	☐ Wa	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3)	_ , 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		uired; ch	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph In Reduction Reduction	es (B13) Odor (C1) eres along red Iron (C4	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sai	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	of one requ		Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduct I Resse	es (B13) Odor (C1) eres along ed Iron (C4) tion in Tille d Plants (D	Living Roo 4)	ts (C3)	Dra Dry Sai Ge Shi FA	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)	, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	of one requ	v (B7)	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph In Reduction Reduction	es (B13) Odor (C1) eres along ed Iron (C4) tion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sai Ge Shi FA	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	of one requ	v (B7)	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduct I Resse	es (B13) Odor (C1) eres along ed Iron (C4) tion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sai Ge Shi FA	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)	, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concar rvations:	of one requ al Imagery ave Surfac	v (B7) ce (B8)	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted o	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph I Reduct	es (B13) Odor (C1) eres along ed Iron (C4) tion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sai Ge Shi FA	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)	, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concar rvations: ter Present?	of one requal Imagery ave Surface Yes □	v (B7) ce (B8) No ⊠	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted o Other (E.	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph I Reduct I Reduc	es (B13) Odor (C1) eres along ed Iron (C4) tion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dry Sai Ge Shi FA	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)	, 2,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concar rvations: ter Present?	of one required in the second of the second	v (B7) ce (B8) No ⊠ No □	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E.	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph Invertebrat I Reduct I Re	es (B13) Odor (C1) eres along ed Iron (C4) tion in Tille d Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	☐ Wa	Atter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Ainage Patterns (B10) A-Season Water Table (C2) Aturation Visible on Aerial Imagery (Comorphic Position (D2) Allow Aquitard (D3) C-Neutral Test (D5) Aised Ant Mounds (D6) (LRR A) Aiset-Heave Hummocks (D7)	, 2,
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Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P (includes ca) Describe Res Remarks: No wetland	rdrology Indicator ricators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concar rvations: ter Present? Present? pillary fringe) ecorded Data (streat	al Imagery ave Surfac Yes ☑ Yes ☒ Yes ☒ am gauge	v (B7) ce (B8) No 🖾 No 🗆 No 🗅 e, monitor	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Stunted of Other (E.	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph Invertebrat In Sulfide C I Rhizosph Invertebrat I Reduct I Rhizosph I Reduct I Reduct I Reduct I Reduct I Reduct I Reduct I Respective Services I Respect	es (B13) Dodor (C1) eres along ded Iron (C4 tion in Tille d Plants (D emarks) previous in installed	Living Roo 4) d Soils (C6 1) (LRR A) Wetl spections),	ts (C3)) and Hyd if availal	☐ Wa ☐ Dra ☐ Dry ☐ Sar ☐ Ge ☐ Sha ☐ FA ☐ Fac	Atter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Ainage Patterns (B10) A-Season Water Table (C2) Aturation Visible on Aerial Imagery (Comorphic Position (D2) Allow Aquitard (D3) C-Neutral Test (D5) Aised Ant Mounds (D6) (LRR A) Aiset-Heave Hummocks (D7)	C9)

Project/Site: 1655.0001 / Schoultes Property	(City/Co	ounty: Mary	sville / Snohomish	Sampling Date: 03/02/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-24
				Township, Range: 28, 31,	
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief (concav	ve, convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: <u>48.</u>	14376	61	Long: -122.166856	71 Datum: WGS 84
Soil Map Unit Name: Custer fine sandy loam				NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	s 🗷 No 🗌	(If no, explain in Remarks.)	
Are Vegetation $\underline{\hspace{1.5cm} \hspace{1.5cm} $	nificantly dist	turbed?	? Are "	Normal Circumstances" pres	ent? Yes 🗷 No 🗌
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	(If nee	eded, explain any answers ir	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	oling point	locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵					
Hydric Soil Present? Yes ☐ No 🗵			s the Sample		
Wetland Hydrology Present? Yes ☐ No 🗵		'	within a Wetl	land? Yes ☐ N	o 🔀
Remarks: No wetland criteria observed; disked but	terminal N	Ion w	atland bridg	along and mad by any	andersatan en anitanin a atradar
No wedand chieria observed, disked but	typicai. iv	NOII-W	enand nydr	ology commined by grot	indwater mointoining study.
VEGETATION – Use scientific names of plan	ts.				
			nant Indicato	Dominance Test works	sheet:
Tree Stratum (Plot size: 30 ft) 1			ies? Status	Number of Dominant Sp That Are OBL, FACW, o	
2 3				Total Number of Domina Species Across All Strat	
4.				Percent of Dominant Sp	ecies
Sapling/Shrub Stratum (Plot size: 15 ft)	<u> </u>	- 100	ai Covei	That Are OBL, FACW, o	or FAC: <u>0%</u> (A/B)
1				Prevalence Index work	
2					Multiply by:
3					x 1 = 0
4				_	x = 0 x = 0
5	0	T - 4			x = 0 x = 0 x = 0
Herb Stratum (Plot size: 5 ft)	<u> </u>	= 1 ot	al Cover		$x = \frac{0}{10000000000000000000000000000000000$
1. Festuca idahoensis	5	Yes	FACU	Column Totals: 5	(A) 20 (B)
2.				Oolulliii Totals	(A) <u> (</u> (D)
3				Prevalence Index	= B/A = <u>4</u>
4				Hydrophytic Vegetatio	n Indicators:
5				Rapid Test for Hydro	
6				☐ Dominance Test is >	·50%
7				☐ Prevalence Index is	≤3.0 ¹
8					tations¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascu	, ,
10				☐ Problematic Hydrop	hytic Vegetation¹ (Explain)
11	5	- Tot	al Cover		and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)			al Cover	be present, unless distu	rbed or problematic.
1				Hydrophytic	
2	0	- Tot	al Cover	Vegetation Yes	s □ No ⊠
% Bare Ground in Herb Stratum 95	<u> </u>	- 101	ai Cover	Tresent: Tes	
Remarks: No hydrophytic vegetation indicators o	hserved			•	

Donth								the abs		•
Depth (inches)	Matrix Color (moist)	%	Colo	Red or (moist)	ox Featur %	<u>es</u> Type ¹	Loc ²	Texture	Δ	Remarks
0 - 9	10YR 3/3	98		YR 4/6	2	CS	M, PL	SaLo		Mixed organics disturbed
9 - 13	2.5Y 4/3	90	2.5	Y 5/6	10	CS	M	Sand		Coarse
13 - 15	10YR 3/1	100						SaLo		
15 - 24	2.5Y 4/3	93	2.5	Y 5/4	7	CS	M	Sand		Coarse
24 - 30	5GY 6/1	95		YR 5/4	. 5	_ 	M, PL	SaCl		Very coarse
24 - 30	3010/1	_ 33	7.5	110 3/4			1VI, I L	Saci		very coarse
	oncentration, D=De						ed Sand Gr			ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to	all LRR	s, unless oth	erwise no	ted.)		In	dicato	s for Problematic Hydric Soils ³ :
Histosol	, ,			Sandy Redox (_		Muck (A10)
	oipedon (A2)			Stripped Matrix		.4.				Parent Material (TF2)
☐ Black His				_oamy Mucky	•	,	t MLRA 1)		-	Shallow Dark Surface (TF12)
	en Sulfide (A4)	oo (A11)		Loamy Gleyed		2)			Otnei	(Explain in Remarks)
	d Below Dark Surfa ark Surface (A12)	ce (ATT)		Depleted Matri Redox Dark Sເ		١		3In	ndicator	rs of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark	•	,		"		nd hydrology must be present,
-	Gleyed Matrix (S4)			Redox Depres	•	•				s disturbed or problematic.
	Layer (if present):				()					
Type:				_						
Depth (in	ches):							Hvdri	c Soil	Present? Yes □ No ⊠
Remarks:								,		
	ooila indicatora	oboon.	ad							
ino flydric s	soils indicators	observe	eu.							
HYDROLO	GY									
107 41 111										
_	drology Indicator									
_	drology Indicators		uired; che	eck all that app	oly)				Secon	dary Indicators (2 or more required)
Primary India	cators (minimum of Water (A1)		uired; che	eck all that app		/es (B9) (€	except MLF	RA		ater-Stained Leaves (B9) (MLRA 1, 2,
Primary India	cators (minimum of		uired; che	☐ Water-Sta			except MLF	RA		
Primary India	cators (minimum of Water (A1) ater Table (A2)		uired; che	☐ Water-Sta 1, 2, 4 ☐ Salt Crus	ained Leav I A, and 4I t (B11)	3)	except MLF		☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Primary India Surface High Wa Saturation	cators (minimum of Water (A1) ater Table (A2)		uired; che	☐ Water-Sta	ained Leav I A, and 4I t (B11)	3)	except MLR		☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
Primary India Surface High Wa Saturatio Water M Sedimen	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		uired; che	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen	ained Leaven Alamed Ala	es (B13) Odor (C1)			☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		uired; che	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized	ained Leaver A.A., and 4I and	es (B13) odor (C1) eres along	Living Roo		☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; che	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence	ained Leaver A.A., and 4I and	es (B13) odor (C1) eres along ed Iron (C	Living Roo 4)	ts (C3)	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		uired; che	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ire	ained Leaver A.A., and 41 to (B11) invertebrate Sulfide Controller	es (B13) odor (C1) eres along ed Iron (C- ion in Tille	Living Roo 4) d Soils (C6	ts (C3)	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2)
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Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial	one requ	(B7)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ire	ained Leaver A.A., and 41 (B11) Invertebrate Sulfide Control Reduction Reduction Stressed	es (B13) odor (C1) eres along ed Iron (Cion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dra Sa Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial	one requ	(B7)	Water-Star 1, 2, 4 1, 2, 4 Salt Crus: Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o	ained Leaver A.A., and 41 (B11) Invertebrate Sulfide Control Reduction Reduction Stressed	es (B13) odor (C1) eres along ed Iron (Cion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dra Sa Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial	one requ	(B7)	Water-Star 1, 2, 4 1, 2, 4 Salt Crus: Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o	ained Leaver A.A., and 41 (B11) Invertebrate Sulfide Control Reduction Reduction Stressed	es (B13) odor (C1) eres along ed Iron (Cion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dra Sa Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar revations:	one requ	(B7)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leavanne Leavan	es (B13) odor (C1) eres along ed Iron (Cion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dra Sa Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar evations: ter Present?	one required in the second sec	(B7) e (B8)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o	ained Leavanne Leavan	es (B13) odor (C1) eres along ed Iron (Cion in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Dra Dra Sa Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar rvations: ter Present?	one required in the second sec	(B7) e (B8) No ⊠	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leaver A, and 4l (B11) invertebrate Sulfide Con Reduction Re	es (B13) odor (C1) eres along ed Iron (Cion in Tille d Plants (D	Living Roo 4) d Soils (C6 01) (LRR A)	tts (C3)	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Ge ☐ Sh ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar rvations: ter Present? Present?	Imagery ve Surfac Yes Yes Yes Yes Yes Yes	(B7) e (B8) No ☑ No ☐	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leaver And All And Andrea And Andrea	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) ad Soils (C6 01) (LRR A)	ts (C3)) and Hyd	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Gee ☐ Sh ☐ FA ☐ Fa	Atter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
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Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re Remarks: Wetland h	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar reations: ter Present? Present? Present? pillary fringe) corded Data (streat	Imagery ve Surface Yes Yes Yes Yes Magauge On obse	(B7) e (B8) No 🖾 No 🗆 nonitor	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leaver A, and 4I (B11) invertebrate Sulfide Con Reduction Reduction Reduction Reseases: 12 es): 12 es): 8	es (B13) clor (C1) cres along ed Iron (C ion in Tille d Plants (C emarks) crevious in	Living Roo 4) d Soils (C6 01) (LRR A) Wetla spections),	and Hyd	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Gee ☐ Sh ☐ FA ☐ Fro ☐ Fro ☐ Fro ☐ Dra ☐ Gee ☐ Sh ☐ FA ☐ Fro	Atter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property	(City/C	ounty: Marys	ville / Snohomish	Sampling Date: 03/02/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-25
Investigator(s): Emily Swaim, Richard Peel			Section, T	ownship, Range: 28, 3	1, 05N
Landform (hillslope, terrace, etc.): Valley Floor				· ·	
Subregion (LRR): A-2	_ Lat: <u>48</u>	.143 [^]	104	_ Long: -122.16566	5580 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for this				If no, explain in Remarks	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly disf	turbec	d? Are "N	ormal Circumstances" pr	esent? Yes 🗵 No 🗌
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	(If need	ded, explain any answers	in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sam	pling point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵					
Hydric Soil Present? Yes ☐ No 🗵			Is the Sample		
Wetland Hydrology Present? Yes ☐ No ☒			within a Wetla	nd? Yes □	No 🗵
Remarks:					
No wetland criteria observed. No	ı-wetland	d hy	drology con	ifirmed by ground	water monitoring study.
VEGETATION – Use scientific names of plan	ts.				
T. 01 (DL) (DL)			inant Indicator	Dominance Test wor	ksheet:
Tree Stratum (Plot size: 30 ft) 1				Number of Dominant S That Are OBL, FACW,	
2 3				Total Number of Domi Species Across All Str	•
4	0			Percent of Dominant S That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size: 15 ft)					
1				Prevalence Index wo	
2					Multiply by:
3				_	x 1 = 0 x 2 = 0
4				_	$x = \frac{0}{0}$
5	0		otal Cover	· -	x 4 = 0
Herb Stratum (Plot size: 5 ft)	<u> </u>	- 10	otal Covel		x 5 = 0
1					(A) <u>0</u> (B)
2		·			
3					x = B/A =
4				Hydrophytic Vegetat	
5				*	drophytic Vegetation
6				Dominance Test is	
7				▼ Prevalence Index	aptations¹ (Provide supporting
8					ks or on a separate sheet)
9				☐ Wetland Non-Vaso	cular Plants ¹
10				☐ Problematic Hydro	pphytic Vegetation¹ (Explain)
11	0	= To	otal Cover		oil and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)				be present, unless dis	turbed or problematic.
1				Hydrophytic	
2	0	= To	otal Cover	Vegetation Present? Yes	es □ No ⊠
% Bare Ground in Herb Stratum 100		- 10	nai Guvei	110001111	50 110 E
Remarks: No hydrophytic vegetation indicators o	hserved				
140 Hydrophydd Ydgoladolf maidalol 3 0	Jooi vou.				

epth inches)	Matrix Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Textur	e	Remarks	
) - 8	10YR 3/2	100	_ <u>0010</u>	<u>r (moist)</u>				SaLo		rtomanto	
3 - 16	10YR 3/2	98	10	/R 3/4	2	С	M	SaLo)	Gravelly	
6 - 30	5y 4/4	97	10	/R 4/6	3	С	M, PL	LoSa		Coarse	
			_ —								
vne. C=C	oncentration, D=D	enletion	RM=Red	uced Matrix	CS=Cove	red or Coat	ed Sand Gr	ains	² l.oc	ation: PL=Pore Lining, M	-Matrix
	Indicators: (Appl						ca cana ci			rs for Problematic Hydri	
Histosol	(A1)			Sandy Redox	(S5)] 2 cm	Muck (A10)	
Histic Ep	oipedon (A2)			Stripped Matr] Red I	Parent Material (TF2)	
Black Hi	stic (A3)		□ ι	oamy Mucky	Mineral (I	F1) (excep	t MLRA 1)] Very	Shallow Dark Surface (TF	12)
Hydroge	en Sulfide (A4)		□ Լ	oamy Gleye	d Matrix (F	⁻ 2)] Othe	r (Explain in Remarks)	
•	d Below Dark Surfa	ıce (A11)		Depleted Mat	` '						
	ark Surface (A12)			Redox Dark S	•	•		3lr		rs of hydrophytic vegetatio	
-	Mucky Mineral (S1)			Depleted Darl						nd hydrology must be pres	
	Bleyed Matrix (S4)			Redox Depres	ssions (F8	5)		1	unless	s disturbed or problematic	
Type:	Layer (if present)										
				-				1			-
	chae).									Present? Yes 🗌 No	IVI
emarks:	soils indicators							Hydri	ic 5011	1656H2	<u> </u>
emarks: hydric	soils indicators	observ						Hydri		TOOLING TOOL NO	
emarks: hydric s DROLO etland Hy	soils indicators GY drology Indicator	observe	ed.	eck all that ap	(Vlac			Hydri			
emarks: hydric : DROLO etland Hy imary Indi	soils indicators OGY Idrology Indicator cators (minimum o	observe	ed.			aves (BQ) (s	excent MI F		Secon	dary Indicators (2 or more	required)
process DROLO etland Hy mary Indices	soils indicators OGY Idrology Indicator cators (minimum o	observe	ed.	☐ Water-St	tained Lea	. , .	except MLF		Secon	dary Indicators (2 or more ater-Stained Leaves (B9) (required)
phydric something physical phy	or soils indicators OGY Ordrology Indicator Cators (minimum o Water (A1) Ater Table (A2)	observe	ed.	☐ Water-St	tained Lea	. , .	except MLR		Secon	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B)	required)
DROLO etland Hy imary India Surface High Wa Saturatio	or Soils indicators OGY Odrology Indicator Cators (minimum of Water (A1) Ater Table (A2) On (A3)	observe	ed.	☐ Water-St 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	lB)	except MLR		Secon Wa	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10)	required)
DROLO etland Hy mary Indi Surface High Wa Saturatio Water M	oGY drology Indicators cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)	observe	ed.	☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	tained Lea 4A, and 4 st (B11) nvertebrat	tes (B13)	except MLF		Secon Wa	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2	required) MLRA 1, 2
DROLO etland Hy imary Indi Surface High Wa Saturatic Water M Sedimer	or (A1) ater Table (A2) bon (A3) larks (B1) at Deposits (B2)	observe	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (tes (B13) Odor (C1)	·	RA	Secon Wa Dra Dra Sa	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2 turation Visible on Aerial I	required) MLRA 1, 2
DROLO etland Hy mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	or (A3) larks (B1) nt Deposits (B2) posits (B3)	observe	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph	tes (B13) Odor (C1) neres along	Living Roo	RA	Secon Wa Dra Dra Sa Ge	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2 turation Visible on Aerial I	required) MLRA 1, 2
DROLO etland Hy imary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	pGY redrology Indicators cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	observe	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A , and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduc	tes (B13) Odor (C1) neres along ced Iron (C	Living Roo 4)	RA tts (C3)	Secon Wa Dra Dra Ge Sa Ge Sh	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (Caturation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3)	required) MLRA 1, 2
DROLO etland Hy mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	observe	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) nvertebrain n Sulfide (Rhizosphe e of Reduction Reduction	tes (B13) Odor (C1) heres along ced Iron (C	Living Roo 4) d Soils (C6	RA tts (C3)	Secon Wa Dr. Dr. Sa Ge Sh FA	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I eomorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5)	required) MLRA 1, 2 2) magery (C
DROLO etland Hy imary Indie Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	or (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	observe	ed.	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roo 4)	RA tts (C3)	Secon Wa Dr. Dr. Sa Ge Sh FA	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) (LF) aised Ant Mounds (D6) (LF)	required) MLRA 1, 2 2) magery (C
DROLO etland Hy imary Indie Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	or Crust (B4) posits (B5) soils indicators reactors (minimum or	observers: s: f one requ	ed. uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) nvertebrain n Sulfide (Rhizosphe e of Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6	RA tts (C3)	Secon Wa Dr. Dr. Sa Ge Sh FA	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I eomorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5)	required) MLRA 1, 2 2) magery (C
DROLO etland Hy imary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	soils indicators OGY Orology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca	observers: s: f one requ	ed. uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6	RA tts (C3)	Secon Wa Dr. Dr. Sa Ge Sh FA	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) (LF) aised Ant Mounds (D6) (LF)	required) MLRA 1, 2 2) magery (C
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	posits (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria v Vegetated Conca	observers: f one requirements of the servers of the server of the server of the server of the server of the servers of the se	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in F	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6	RA tts (C3)	Secon Wa Dr. Dr. Sa Ge Sh FA	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) (LF) aised Ant Mounds (D6) (LF)	required) MLRA 1, 2 2) magery (C
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely eld Obser	or vegetated Concarvations:	observers: s: f one required in the servers of the	ed. uired; che (B7) ce (B8)	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) nvertebrai n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in F	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6	RA tts (C3)	Secon Wa Dr. Dr. Sa Ge Sh FA	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) (LF) aised Ant Mounds (D6) (LF)	required) MLRA 1, 2 2) magery (C
DROLO etland Hy imary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely eld Obser	GGY Idrology Indicators Cators (minimum or	observe	ed. uired; che (B7) ce (B8) No 🏽	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in F es): 14	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6 01) (LRR A)	ts (C3)	Secon Wa Dr. Dr. Sa Ge Sh FA	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) a.C-Neutral Test (D5) aised Ant Mounds (D6) (LF) cost-Heave Hummocks (D7)	required) MLRA 1, 2 2) magery (C
marks: hydric s hydric s hydric s hydric s transport of the second	posits (B1) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Conca rvations: ter Present? Present? pillary fringe)	observe s: f one require Yes Surface Yes Yes Yes	ed. uired; che c (B7) ce (B8) No 🖾 No 🖂	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in F es): 14 es): 12	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille d Plants (C- Remarks)	Living Roo 4) ad Soils (C6 01) (LRR A)	ts (C3)	Secon Wa Dr. Sa Ge Sh FA Free	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) (LF) aised Ant Mounds (D6) (LF)	required) MLRA 1, 2 2) magery (C
TDROLO etland Hy imary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatia Sparsely eld Obser arter Table atturation P	or vegetated Concarvations: resent?	observe s: f one require Yes Surface Yes Yes Yes	ed. uired; che c (B7) ce (B8) No 🖾 No 🖂	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in F es): 14 es): 12	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille d Plants (C- Remarks)	Living Roo 4) ad Soils (C6 01) (LRR A)	ts (C3)	Secon Wa Dr. Sa Ge Sh FA Free	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) a.C-Neutral Test (D5) aised Ant Mounds (D6) (LF) cost-Heave Hummocks (D7)	required) MLRA 1, 2 2) magery (C
Process Property of the control of	posits (B1) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Conca rvations: ter Present? Present? pillary fringe)	observe s: f one require Yes Surface Yes Yes Yes	ed. uired; che c (B7) ce (B8) No 🖾 No 🖂	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in F es): 14 es): 12	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille d Plants (C- Remarks)	Living Roo 4) ad Soils (C6 01) (LRR A)	ts (C3)	Secon Wa Dr. Sa Ge Sh FA Free	dary Indicators (2 or more ater-Stained Leaves (B9) (4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial I comorphic Position (D2) allow Aquitard (D3) a.C-Neutral Test (D5) aised Ant Mounds (D6) (LF) cost-Heave Hummocks (D7)	required) MLRA 1, 2 2) magery (C

Project/Site: 1655.0001 / Schoultes Property	(City/Co	unty: _	Marysv	ille / Snohomish	Sampling Date: 03/02/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Sampling Point: DP-26
					wnship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief (concave,	convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: 48.	14281	18		Long: -122.166910	51 Datum: WGS 84
Soil Map Unit Name: Norma Ioam					NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed?	?	Are "No	ormal Circumstances" pres	ent? Yes 🗵 No 🗌
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?		(If neede	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	ling	point lo	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵						
Hydric Soil Present? Yes ☐ No 🗵				Sampled		
Wetland Hydrology Present? Yes ☐ No ☒		V	within	a Wetlan	ıd? Yes ☐ No	o 🔀
Remarks:						
No wetland criteria observed. No	1-wetland	a nya	lrolog	gy coni	armed by groundw	ater monitoring study.
VEGETATION – Use scientific names of plan	ts.					
	Absolute				Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dominant Sp That Are OBL, FACW, o	
2					Total Number of Domina	
3					Species Across All Strata	a: <u>1</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0			er	Percent of Dominant Spo That Are OBL, FACW, o	
1					Prevalence Index work	sheet:
2					Total % Cover of:	Multiply by:
3					OBL species 0	x 1 = <u>0</u>
4					FACW species 0	x 2 = <u>0</u>
5						x 3 = <u>90</u>
	0	= Tota	al Cov	er		x 4 = <u>240</u>
Herb Stratum (Plot size: <u>5 ft)</u> 1. Prunella vulgaris	60	Voc		FACU		x 5 = 0
2. Cardamine oligosperma	15	No		FAC	Column Totals: 90	(A) <u>330</u> (B)
3. Vicia americana	15	No		AC AC	Prevalence Index	= B/A = 3.67
4					Hydrophytic Vegetation	
5					☐ Rapid Test for Hydro	
6.					☐ Dominance Test is >	·50%
7.					☐ Prevalence Index is:	≤3.0 ¹
8						tations ¹ (Provide supporting
9						or on a separate sheet)
10					☐ Wetland Non-Vascul	nytic Vegetation¹ (Explain)
11						and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	90	= Tota	al Cov	er	be present, unless distur	
1					Hydrophytic	
2	0				Vegetation	. □ Na □
% Bare Ground in Herb Stratum 10	0	= Tota	al Cov	er	Present? Yes	□ No ⊠
Remarks: No hydrophytic vegetation indicators o	heeried				<u> </u>	
ino nyuropnytic vegetation indicators o	nseiveu.					

Profile Desc										•	
Depth	<u>Matrix</u>				ox Featur		. 2	.		D	
(inches) 0 - 16	Color (moist) 10YR 3/2	<u>%</u> 100	Colo	r (moist)	%	Type ¹	Loc ²	SaLo		Remarks	
	-			VD 0/4							
16 - 23	10YR 3/3	98		YR 3/4	2	CS	M	Sand		arse	
23 - 30	10YR 4/4	98	7.5	YR 3/4	2	CS		Sand	<u></u>		
-	-							-			
								-			
¹Type: C=C	oncentration, D=D	epletion, F	RM=Red	uced Matrix, C	S=Cover	ed or Coat	ed Sand Gr	rains.	² Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (App	icable to	all LRRs	s, unless othe	rwise no	ted.)		In	dicators for	Problematic Hydric Soils ³ :	
☐ Histosol	(A1)			Sandy Redox (S5)				2 cm Muck	(A10)	
	oipedon (A2)			Stripped Matrix						t Material (TF2)	
☐ Black Hi				oamy Mucky N	•	,	t MLRA 1)		-	ow Dark Surface (TF12)	
	en Sulfide (A4)	(111)		oamy Gleyed		2)			Other (Exp	lain in Remarks)	
	d Below Dark Surfa ark Surface (A12)	ice (ATT)		Depleted Matrix Redox Dark Su		`		31,	adicators of k	nydrophytic vegetation and	
	Aucky Mineral (S1)			Depleted Dark	•	,		-11		drology must be present,	
-	Gleyed Matrix (S4)			Redox Depress	,	,				urbed or problematic.	
	Layer (if present)	:		· · ·	(- /					<u>'</u>	
Type:											
Depth (in	iches):							Hydri	c Soil Prese	ent? Yes □ No ⊠	
Remarks:											
No hydric	soils indicators	ohserva	2d								
i vo riyano s		0000170									
HYDROLO											
Wetland Hy	drology Indicator										
Wetland Hy	drology Indicator									ndicators (2 or more required	
Wetland Hy Primary India ☐ Surface	rdrology Indicator cators (minimum o Water (A1)			☐ Water-Sta	ined Lea		xcept MLF	RA	☐ Water-S	tained Leaves (B9) (MLRA 1	
Wetland Hy Primary India ☐ Surface ☐ High Wa	rdrology Indicator cators (minimum o Water (A1) ater Table (A2)			☐ Water-Sta	ined Lea A, and 4		xcept MLF	RA	☐ Water-S	tained Leaves (B9) (MLRA 1 and 4B)	
Wetland Hy Primary India □ Surface □ High Wa □ Saturatio	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)			☐ Water-Sta 1, 2, 4. ☐ Salt Crust	ined Lea A, and 4 (B11)	В)	xcept MLF	RA	☐ Water-S 4A,	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10)	
Wetland Hy Primary India Surface High Wa Saturatio Water M	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)			☐ Water-Sta 1, 2, 4 ☐ Salt Crust ☐ Aquatic In	ined Lea A, and 4 (B11) vertebrat	B) es (B13)	xcept MLF	RA	☐ Water-S 4A, 6 ☐ Drainag ☐ Dry-Sea	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)			☐ Water-Sta 1, 2, 4 ☐ Salt Crust ☐ Aquatic In ☐ Hydrogen	ined Lea A, and 4 l (B11) vertebrat Sulfide C	es (B13) Odor (C1)			☐ Water-S 4A, a ☐ Drainag ☐ Dry-Sea ☐ Saturati	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)			☐ Water-Sta 1, 2, 4. ☐ Salt Crust ☐ Aquatic In: ☐ Hydrogen ☐ Oxidized F	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph	es (B13) Odor (C1) eres along	Living Roo		Water-S 4A, a Drainag Dry-Sea Saturati	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) and Deposits (B2) posits (B3) at or Crust (B4)			□ Water-Sta 1, 2, 4. □ Salt Crust □ Aquatic In □ Hydrogen □ Oxidized F □ Presence	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizospho of Reduct	es (B13) Odor (C1) eres along ed Iron (C4	Living Roo 4)	ts (C3)	Water-S 4A, : Drainag Dry-Sea Saturati Geomor Shallow	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)			□ Water-Sta 1, 2, 4. □ Salt Crust □ Aquatic In: □ Hydrogen □ Oxidized F □ Presence □ Recent Iro	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosphoof Reduction of Reduction	es (B13) Odor (C1) eres along ed Iron (C4	Living Roo 4) d Soils (C6	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	f one requ		Water-Sta 1, 2, 4. Salt Crust Aquatic In: Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizospho of Reduct Reduct Stresse	es (B13) Dodor (C1) Deres along ed Iron (C4) Cition in Tille d Plants (D	Living Roo 4)	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	f one requ	(B7)	□ Water-Sta 1, 2, 4. □ Salt Crust □ Aquatic In: □ Hydrogen □ Oxidized F □ Presence □ Recent Iro	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizospho of Reduct Reduct Stresse	es (B13) Dodor (C1) Deres along ed Iron (C4) Cition in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	f one requ	(B7)	Water-Sta 1, 2, 4. Salt Crust Aquatic In: Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizospho of Reduct Reduct Stresse	es (B13) Dodor (C1) Deres along ed Iron (C4) Cition in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Bello (B2) on (B3) at or Crust (B4) on (B5) Soil Cracks (B6) on Visible on Aerially Vegetated Concarvations:	f one requ I Imagery ve Surfac	(B7) e (B8)	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosphor of Reductor r Stressed clain in R	es (B13) Dodor (C1) Deres along ed Iron (C4) Cition in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B2) on (B3) at or Crust (B4) on Visible on Aeria of Vegetated Concarvations:	f one requ I Imagery ve Surfac Yes □	(B7) e (B8) No 🛭	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc n Reduc Stresse blain in R	es (B13) Dodor (C1) Deres along ed Iron (C4) Cition in Tille d Plants (D	Living Roo 4) d Soils (C6	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Water Table	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	l Imagery ve Surfac Yes □ Yes ⊠	(B7) e (B8) No ☑ No ☐	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc n Reduc Stresse blain in R	es (B13) Dodor (C1) Deres along ed Iron (C4) Cition in Tille d Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised A Frost-He	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely Field Obser Surface Water Table Saturation P	rdrology Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concarvations: ter Present? Present?	f one requ I Imagery ve Surfac Yes □	(B7) e (B8) No 🛭	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc n Reduc Stresse blain in R	es (B13) Dodor (C1) Deres along ed Iron (C4) Cition in Tille d Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised A Frost-He	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	I Imagery ve Surfac Yes □ Yes ☒ Yes ☒	(B7) e (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp Depth (inchedule) Depth (inchedule)	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc r Stresser blain in R s): 22 s): 14	es (B13) Odor (C1) eres along ed Iron (C4 cion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised Frost-He	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicator cators (minimum of Water (A1) after Table (A2) on (A3) after Table (B2) on (A3) after Table (B2) on (B3) after Table (B4) on (B4) on (B5) soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	I Imagery ve Surfac Yes □ Yes ☒ Yes ☒	(B7) e (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp Depth (inchedule) Depth (inchedule)	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc r Stresser blain in R s): 22 s): 14	es (B13) Odor (C1) eres along ed Iron (C4 cion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised Frost-He	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicator cators (minimum of Water (A1) after Table (A2) on (A3) after Table (B2) on (A3) after Table (B2) on (B3) after Table (B4) on (B4) on (B5) soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	I Imagery ve Surfac Yes □ Yes ☒ Yes ☒	(B7) e (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp Depth (inchedule) Depth (inchedule)	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc r Stresser blain in R s): 22 s): 14	es (B13) Odor (C1) eres along ed Iron (C4 cion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised Frost-He	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)	, 2 ,
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rdrology Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar rvations: ter Present? Present? pillary fringe) corded Data (streat	I Imagery ve Surfac Yes ☐ Yes ☒ Yes ☒ am gauge,	(B7) e (B8) No ☑ No ☐ no ☐ monitori	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp Depth (inche Depth (inche Ing well, aerial	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc on Reduc Stresse blain in R s):	es (B13) Dodor (C1) Deres along ed Iron (C4 Diction in Tille d Plants (Demarks) Derevious ins	Living Roo 4) d Soils (C6 1) (LRR A) Wetl	ts (C3)) and Hyc if availal	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised A Frost-He	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)	(C9)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca) Describe Re	rdrology Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar rvations: ter Present? Present? pillary fringe) corded Data (streat	I Imagery ve Surfac Yes ☐ Yes ☒ Yes ☒ am gauge,	(B7) e (B8) No ☑ No ☐ nonitori	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp Depth (inchedulation)	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc n Reduc Stresse blain in R s): 22 s): 14 photos, p	es (B13) Dodor (C1) Deres along ed Iron (C4 Diction in Tille d Plants (D Demarks) Drevious installed	Living Roo 4) d Soils (C6 1) (LRR A) Wetl spections),	and Hyc	Water-S 4A, a Drainag Dry-Sea Saturati Geomor Shallow FAC-Ne Raised Frost-He	tained Leaves (B9) (MLRA 1 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)	(C9)

Project/Site: 1655.0001 / Schoultes Property	(City/Co	_{unty:} Mar	ysville / Snohomi	sh sam	npling Date: 03/02/20	:018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sam	npling Point: DP-27	
				, Township, Range: _			
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief (conc	ave, convex, none):	Concave	Slope (%): 0)
Subregion (LRR): A-2	_ Lat: 48.	14384	4	Long: -122.1	16838588	Datum: WGS	3 84
Soil Map Unit Name: Norma Ioam				NWI	classification:	None	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes	× No □] (If no, explain in Re	emarks.)		
Are Vegetation, Soil, or Hydrology sign	nificantly disf	turbed?	Are	"Normal Circumstan	ces" present?	Yes ☒ No ☐	
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If ne	eeded, explain any a	nswers in Rem	narks.)	
SUMMARY OF FINDINGS - Attach site map	showing	samp	ling poir	nt locations, trar	nsects, imp	oortant features,	etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐							
Hydric Soil Present? Yes ☒ No ☐			s the Samp				
Wetland Hydrology Present? Yes ☐ No ☒		V	vithin a We	etland? Yo	es 🗌 No 🗵		
Remarks: Not all three wetland criteria observed, only h	vdronhytic	vegeta	tion and hy	dric soil present No	on-wetland hy	vdrology confirmed h)v
groundwater monitoring study.	yaropnyue	vegeta	tion and my	arie son presenti i v	on wettand my	urorogy committee b	<i>'</i>
VEGETATION – Use scientific names of plan	ts.						
T 0 (D			ant Indicat		st worksheet		
Tree Stratum (Plot size: 30 ft) 1			es? Statu	Number of Don That Are OBL,			A)
2				Total Number o	of Dominant	_	
3				_ Species Across	; All Strata:	<u>2</u> (B	3)
4Sapling/Shrub Stratum (Plot size: 15 ft)	^		al Cover	Percent of Dom That Are OBL,			N/B)
1				Prevalence Inc	dex workshee	 >t:	
2.				Total % Co	over of:	Multiply by:	
3				OBL species	0	x 1 = <u>0</u>	
4				FACW species		x 2 = 0	
5				FAC species		x 3 = <u>300</u>	
	0	= Tota	al Cover	FACU species		x 4 = 0	
Herb Stratum (Plot size: <u>5 ft)</u> 1. Agrostis capillaris	60	Vas	FAC	UPL species	0	x 5 = 0	
2 Lotus corniculatus	40	Yes		Column Totals:	100	(A) <u>300</u>	(B)
			_	– Prevalenc	ce Index = B/A	4 = 3	
3				Hydrophytic V			
5.				-	for Hydrophyti		
6.				_		-	
7				−	Index is ≤3.0 ¹	i	
8.						ns¹ (Provide supporting	g
9						n a separate sheet)	
10				-	on-Vascular Pla		
11						Vegetation¹ (Explain)	
Woody Vine Stratum (Plot size: 30 ft)	100	= Tota	al Cover	be present, unl		wetland hydrology mus or problematic.	IST
1				Hydrophytic			
2				Vegetation			
% Bare Ground in Herb Stratum 0	0	= Tota	al Cover	Present?	Yes ⊠	No 🗌	
Pomorke:				Land in all to all			
Hydrophytic vegetation criterion observ	rea throu(gn dor	minance t	est indicator.			

Sampling Point: DP-27

SaLo	e Remarks
LoSa	
Sand	Coarse
-	
-	
	
	² Location: PL=Pore Lining, M=Matrix. dicators for Problematic Hydric Soils ³ :
	2 cm Muck (A10) Red Parent Material (TF2)
	Very Shallow Dark Surface (TF12)
_	
_	2 (<u>2. 4</u>
³ In	dicators of hydrophytic vegetation and
	wetland hydrology must be present,
	unless disturbed or problematic.
Hydrid	c Soil Present? Yes ⊠ No □
	Secondary Indicators (2 or more required)
	☐ Water-Stained Leaves (B9) (MLRA 1, 2
	Water-Stained Leaves (B9) (MLRA 1, 2
RA	Water-Stained Leaves (B9) (MLRA 1, 24A, and 4B)□ Drainage Patterns (B10)
RA	 Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2)
RA	 Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C
RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2)
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
RA ots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
ets (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
ets (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
ets (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
ets (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
ets (C3) is) land Hyd if availab	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
	3In

Project/Site: 1655.0001 / Schoultes Property		City/Cour	_{nty:} Marysv	rille / Snohomish	Sampling Date: 03/02/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-28
				ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local re	lief (concave,	, convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: 48	.143877	7	Long: -122.1696372	28 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes [× No □ (l	f no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampli	ng point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☐ No 🗵			the Sampled		
Wetland Hydrology Present? Yes ☐ No 🗵		Wit	thin a Wetlar	nd? Yes □ No) X
Remarks: Not all three wetland criteria observed, only h	ydrophytic	vegetatio	on present. N	Non-wetland hydrology co	onfirmed by groundwater
monitoring study.					
VEGETATION – Use scientific names of plan	ts.				
Topic Christian (Diet size, 20 ft)			nt Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			Number of Dominant Sp That Are OBL, FACW, o	
2				Total Number of Domina	
3				Species Across All Strata	a: <u>2</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0			Percent of Dominant Spo That Are OBL, FACW, o	
1				Prevalence Index work	sheet:
2.				Total % Cover of:	Multiply by:
3				OBL species	x 1 =
4				FACW species	x 2 =
5				FAC species	x 3 =
	0	= Total	Cover		x 4 =
Herb Stratum (Plot size: <u>5 ft)</u> 1. Agrostis capillaris	60	Yes	FAC		x 5 =
2 Lotus corniculatus	40	Yes	FAC	Column Totals:	(A) (B)
3				Prevalence Index	= B/A =
4.				Hydrophytic Vegetation	
5				☐ Rapid Test for Hydro	phytic Vegetation
6.				■ Dominance Test is > ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	50%
7				☐ Prevalence Index is	≤3.0¹
8					tations ¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	ar Plants ¹
10				☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
11	100	= Total	Cover		and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)				be present, unless distur	bed or problematic.
1 2				Hydrophytic	
	0	= Total	Cover	Vegetation Present? Yes	⊠ No □
% Bare Ground in Herb Stratum 0	_ _	. Juli			_ · _
Remarks: Hydrophytic vegetation criterion observ	ved through	ah dom	inance test	t indicator.	
s s, and p s, and s a general situation observed	3 2 3 	J . 3.3.11			

Sampling Point: DP-28

inches) Calar (maist)	%		r (moist)	dox Featur %	Type ¹	Loc ²	Textur	•	Remarks	
inches) Color (moist) 0 - 5 10YR 3/2			r (moist)		<u>rype</u>	LOC	SaLo		Remarks	
5 - 14 10YR 3/2	98	10	YR 5/8	2	C	M, PL	SaLo			
4 - 21 10YR 3/2	96		YR 5/8	<u>-</u>		M, PL	SaLo			
1 - 24 10YR 6/8	100		0, 0			, - =	SaLo			
24 - 30 2.5Y 4/2	98	2.5	Y 5/4	2	CS	M, PL	LoSa			
2.51 4/2	90		1 3/4			IVI, FL		<u> </u>		
								21		
ype: C=Concentration, D= ydric Soil Indicators: (Ap						ed Sand Gr			ation: PL=Pore Lining, M=Matri rs for Problematic Hydric Soil:	
Histosol (A1)			Sandy Redox		,				Muck (A10)	
Histic Epipedon (A2)			Stripped Matr						Parent Material (TF2)	
Black Histic (A3)			_oamy Mucky	` '	1) (excep	t MLRA 1)			Shallow Dark Surface (TF12)	
Hydrogen Sulfide (A4)			_oamy Gleye			•		-	(Explain in Remarks)	
Depleted Below Dark Su	ırface (A11)		Depleted Mat	rix (F3)						
Thick Dark Surface (A12	2)	□ I	Redox Dark S	Surface (F6	6)		3lr	ndicato	rs of hydrophytic vegetation and	
] Sandy Mucky Mineral (S			Depleted Darl	k Surface ((F7)				nd hydrology must be present,	
] Sandy Gleyed Matrix (S	•		Redox Depres	ssions (F8)		•	unless	s disturbed or problematic.	
estrictive Layer (if preser	nt):									
			_							
Depth (inches):							Hydri	ic Soil	Present? Yes ☐ No 🗵	
	tors:									
etland Hydrology Indicat		uired; che	eck all that ap	oply)				Secon	dary Indicators (2 or more requi	ed)
etland Hydrology Indicat		uired; che			ves (Β9) (є	except MLR	RA			
etland Hydrology Indicat imary Indicators (minimum Surface Water (A1)		uired; che	☐ Water-S		. , .	except MLR	RA		dary Indicators (2 or more requi ater-Stained Leaves (B9) (MLRA 4A, and 4B)	
etland Hydrology Indicat imary Indicators (minimum Surface Water (A1) High Water Table (A2)		uired; che	☐ Water-Si	tained Lea	. , .	except MLR	 RA	☐ Wa	ater-Stained Leaves (B9) (MLRA	
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)		uired; che	☐ Water-Si 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	В)	except MLR	RA A	☐ Wa	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10)	
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		uired; che	☐ Water-Single 1, 2, ☐ Salt Crust ☐ Aquatic I	tained Lea 4A, and 4 st (B11) Invertebrat	B) es (B13)	except MLR	RA	□ Wa	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)	1, 2
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		uired; che	☐ Water-Si 1, 2, ☐ Salt Crus ☐ Aquatic ☐ ☐ Hydroge	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (es (B13) Odor (C1)	·		☐ Wa	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Image	1, 2
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I	es (B13) Odor (C1) eres along	Living Root		☐ Wa	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imager comorphic Position (D2)	1, 2
etland Hydrology Indicated imary Indicators (minimum) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C Rhizosph e of Reduc	es (B13) Odor (C1) eres along ced Iron (C	Living Root 4)	ts (C3)	☐ Wa	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagel comorphic Position (D2) allow Aquitard (D3)	1, 2
rimary Indicators (minimum 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)	n of one req	uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduction Reduction	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille	Living Root 4) d Soils (C6)	ts (C3)	Dr. Dr. Sa Gee	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imager comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	1, 2
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/etland Hydrology Indicaterimary Indicators (minimum 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 Ae Sparsely Vegetated Continuation Sparsely Ve	n of one req) rial Imagery icave Surfac	r (B7) ce (B8)	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph I Reduct	es (B13) Odor (C1) eres along sed Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6) 11) (LRR A)	ts (C3)	☐ Wa	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imager comorphic Position (D2) allow Aquitard (D3) .C-Neutral Test (D5) iised Ant Mounds (D6) (LRR A)	1, 2
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 Ae	of one required limagery cave Surface Yes Yes Yes Yes Yes X	v (B7) ce (B8) No ☑ No ☐	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph I Reduct I Reduc	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (C- temarks)	Living Roof 4) d Soils (C6) 1) (LRR A)	ts (C3)	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Gee ☐ Sh ☐ FA ☐ Fro	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imager comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)	1, 2
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ae Sparsely Vegetated Coneld Observations: Surface Water Present? Saturation Present? Saturation Present? Saturation Present Saturation Present	of one required limagery cave Surface Yes Yes Yes Yes Yes X	v (B7) ce (B8) No ☑ No ☐	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph I Reduct I Reduc	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (C- temarks)	Living Roof 4) d Soils (C6) 1) (LRR A)	ts (C3)	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Gee ☐ Sh ☐ FA ☐ Fro	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imager comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)	1, 2
rimary Indicators (minimum 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 Ae Sparsely Vegetated Conceld Observations: Cater Table Present? Cater Table Present? Cater Cate	of one required in one r	v (B7) ce (B8) No 🗷 No 🗆 No 🗆 c, monitor	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide C I Rhizosph I Reduct I Reduct I Reduct I Respect I Res	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (C- temarks)	Living Roof 4) d Soils (C6) 1) (LRR A) Wetla	ts (C3)) and Hyc	☐ Wa ☐ Dra ☐ Dra ☐ Ge ☐ Sh ☐ FA ☐ Fro	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imager comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)	1 , 2

Project/Site: 1655.0001 / Schoultes Property		City/C	County	. Marysv	rille / Snohomish	Sampling Date: 03/0)2/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-		State: WA	· -	
Investigator(s): Emily Swaim, Richard Peel						· -	
Landform (hillslope, terrace, etc.): Valley Floor							%): O
Subregion (LRR): A-2		_		•	•		
Soil Map Unit Name: Norma Ioam					NWI classific		
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remarks.		
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbe	d?	Are "No	ormal Circumstances" pre	esent? Yes 🗷 No 🗆	1
Are Vegetation, Soil, or Hydrology natu					ed, explain any answers i		
SUMMARY OF FINDINGS – Attach site map				•		•	res, etc.
Hydrophytic Vegetation Present?							
Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒				e Sampled			
Wetland Hydrology Present? Yes ☐ No ☒			with	n a Wetlar	nd? Yes ☐ I	√0 ⊠	
Remarks:							
Not all three wetland criteria obs	erved, hy	ydro	phy	tic vege	tation and wetlan	d hydrology pres	sent.
VEGETATION – Use scientific names of plan	ts.						
7 0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (Absolute			Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dominant S That Are OBL, FACW,		_ (A)
2					Total Number of Domir	nant	
3					Species Across All Stra	ata: <u>1</u>	_ (B)
4					Percent of Dominant S	pecies	
Sapling/Shrub Stratum (Plot size: 15 ft)	0	_ = 10	otal Co	over	That Are OBL, FACW,	or FAC: 100%	_ (A/B)
1					Prevalence Index wor	ksheet:	
2.					Total % Cover of:	Multiply by:	
3					OBL species	x 1 =	
4					FACW species	x 2 =	
5					FAC species	x 3 =	
	0	_ = To	otal C	over	FACU species	x 4 =	
Herb Stratum (Plot size: <u>5 ft)</u> 1. Lolium perenne	90	۷۵	9	FΔC		x 5 =	
2 Lotus corniculatus	10	No		FAC	Column Totals:	(A)	(B)
3				1710	Prevalence Index	c = B/A =	
4.					Hydrophytic Vegetation		•
5					☐ Rapid Test for Hyd		
6.					■ Dominance Test is	>50%	
7.					☐ Prevalence Index is	s ≤3.0¹	
8.						ptations¹ (Provide supp	
9						s or on a separate shee	∍t)
10					Wetland Non-Vasc		lain)
11					_ , ,	phytic Vegetation ¹ (Exp	,
Woody Vine Stratum (Plot size: 30 ft)	100	_ = To	otal Co	over	¹ Indicators of hydric so be present, unless dist		y must
1					Hydrophytic		
2					Vegetation		
% Bare Ground in Herb Stratum 0	0	_ = To	otal Co	over	Present? Ye	es 🗵 No 🗌	
	- 1.0				Charles		
Remarks: Hydrophytic vegetation criterion obser	vea throu	yn d	ornin	ance tes	і іпаісатог.		

Depth	cription: (Descril Matrix		aeptn ne		ument tn dox Featu		or confirm	n the ac	sence	e of indicators.)
(inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Textu	re	Remarks
0 - 13	2.5y 3/2	100						SaL	0	
13 - 21	5gy 5/1	98	10`	/R 4/6	2	CS	M	LoS	<u>—</u>	
21 - 30	10Y 4/1	97	2.5	y 5/6	3	CS	M	LoS		Coarse
			_ ===	<i>y</i> 0, 0						
			_							
			_							
1Type: C=C	Concentration, D=D	enletion I	- PM-Rad	uced Matrix	CS-Cove	red or Coat	ed Sand G	raine	21.0	cation: PL=Pore Lining, M=Matrix.
	Indicators: (App						eu Sanu Gi			ors for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox		,				n Muck (A10)
	pipedon (A2)			Stripped Matr				_		I Parent Material (TF2)
	istic (A3)		□ I	_oamy Mucky	Mineral (F1) (excep	t MLRA 1)			y Shallow Dark Surface (TF12)
☐ Hydroge	en Sulfide (A4)		□ I	oamy Gleye	d Matrix (F	=2)			Othe	er (Explain in Remarks)
□ Deplete	d Below Dark Surf	ace (A11)		Depleted Mat	rix (F3)					
	ark Surface (A12)			Redox Dark S	•	•		3		ors of hydrophytic vegetation and
-	Mucky Mineral (S1))		Depleted Darl		. ,				and hydrology must be present,
	Bleyed Matrix (S4)			Redox Depres	ssions (F8	3)		1	unles	ss disturbed or problematic.
Type:	Layer (if present)									
	nches):			-				1		
Remarks:								Hydr	ic Soil	I Present? Yes ☐ No ⊠
HYDROLO	nev									
	drology Indicato	rs:								
_	cators (minimum c		uired: che	eck all that an	(vla				Seco	endary Indicators (2 or more required)
	Water (A1)		,	☐ Water-St		aves (B9) (e	except MLF	RA		Vater-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)				4A, and 4					4A, and 4B)
➤ Saturation				□ Salt Crus	•	,			Πр	Prainage Patterns (B10)
	larks (B1)			☐ Aquatic I	, ,	tes (B13)				Ory-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydroge		, ,				saturation Visible on Aerial Imagery (C9)
	posits (B3)					neres along	Living Roo	ts (C3)	_ □ G	Geomorphic Position (D2)
	at or Crust (B4)					ced Iron (C	_	` ,		hallow Aquitard (D3)
	posits (B5)					ction in Tille	')		AC-Neutral Test (D5)
	Soil Cracks (B6)			☐ Stunted	or Stresse	ed Plants (D	1) (LRR A)	<i>,</i>)		Raised Ant Mounds (D6) (LRR A)
☐ Inundati	on Visible on Aeria	al Imagery	(B7)	☐ Other (E	xplain in F	Remarks)			□ F	rost-Heave Hummocks (D7)
☐ Sparsely	y Vegetated Conca	ave Surfac	e (B8)							
Field Obser	rvations:									
Surface Wa	ter Present?	Yes 🗌	No 🗵	Depth (inch	es):					
Water Table	Present?	Yes 🗵	No 🗌	Depth (inch	es): 12					
Saturation F		Yes 🗵	No 🗌	Depth (inch			Wetl	and Hy	drolog	y Present? Yes □ No 区
(includes ca	pillary fringe)				, -					
Describe Re	ecorded Data (strea	am gauge	, monitor	ıng well, aeria	al photos,	previous in	spections),	ıt availa	ble:	
Remarks:										
	rology criterion obs	erved thro	ıαh Δ၁ &	A3 primary in	dicatore d	uring non-g	rowina sees	on at tin	ne of m	nonitoring well installation on March 2,
	oring well installed a	at monitori		on MP-29 indi	cated wate	er table elev	ations at or	above 1	2 inche	es from April 10 to April 25. However, 5.69
the electric state of the	(000 00	t	- 11 - 21 - 1							it is likely that MP-29 would not normally

Project/Site: 1655.0001 / Schoultes Property	(City/County:	Marysvi	lle / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-3
Investigator(s): Emily Swaim, Jon Pickett, Richard					
Landform (hillslope, terrace, etc.): Valley Floor		Local relief	(concave,	convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: _48.	.140747		Long: -122.1633283	35 Datum: WGS 84
Soil Map Unit Name: Custer fine sandy loam				NWI classificat	_{ion:} None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	r? Yes 🗷	No ☐ (If	no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed?	Are "No	mal Circumstances" prese	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If neede	d, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampling	point lo	cations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☒ No ☐			Sampled		
Wetland Hydrology Present? Yes ☒ No ☐		withii	n a Wetland	d? Yes ☒ No	, []
Remarks: Wetland A plot. All three wetland criteria o	hserved: til	led Wetlar	nd hydrolo	ov confirmed by ground	dwater monitoring study
wedness prouve the times wedness of the first	oscived, in	ica. wetai	ia nyaroto	gy committee by ground	awater monitoring study.
VEGETATION – Use scientific names of plan	ts.				
		Dominant		Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1		Species?		Number of Dominant Spe That Are OBL, FACW, or	
2				Total Number of Domina	
3				Species Across All Strata	a: <u>1</u> (B)
4 Sapling/Shrub Stratum (Plot size: 15 ft)		= Total Co	ver	Percent of Dominant Spe That Are OBL, FACW, or	
1				Prevalence Index works	sheet:
2				Total % Cover of:	Multiply by:
3				OBL species 0	x 1 = <u>0</u>
4				FACW species 0	
5					x 3 = <u>225</u>
	0	= Total Co	ver		x 4 = 0
Herb Stratum (Plot size: <u>5 ft)</u> 1. Agrostis capillaris	75	Yes	FΔC	UPL species 0	x 5 = 0
			-	Column Totals: 75	(A) <u>225</u> (B)
2				Prevalence Index :	= B/A = 3
4				Hydrophytic Vegetation	
5				☐ Rapid Test for Hydro	
6.				■ Dominance Test is >	50%
7				▼ Prevalence Index is	≤3.0 ¹
8.					ations¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	*
10					nytic Vegetation¹ (Explain)
11	75			_ , ,	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	75	= Total Co	ver	be present, unless distur	
1				Hydrophytic	
2	0			Vegetation Present? Yes	⊠ No □
% Bare Ground in Herb Stratum 25	-	= Total Co	ver	rieseilt: 168	
Remarks: Hydrophytic vegetation criterion observ	ved throug	nh domina	ance test	indicator	
, a. aprily to regulation of tonion obser	. 54 11104(aoiimic			

Depth	Matrix				lox Featur					
(inches)	Color (moist)	<u>%</u>	Cold	r (moist)	%	Type ¹	Loc ²	Textur		Remarks
0 - 4	2.5Y 3/2	100						SaLo		
4 - 13	2.5Y 3/2	95	7.5	YR 3/4	5	С		SaLo)	
13 - 30	2.5YR 3/6	85	10`	Y 5/1	15	D	M, PL	Sand	b	Coarse
									<u>.</u>	
	-							-		
								-		
¹Type: C=C	Concentration, D=D	epletion,	RM=Red	uced Matrix, (CS=Covere	ed or Coat	ed Sand Gr	rains.	² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	licable to	all LRR	s, unless oth	erwise no	ted.)		In	dicato	rs for Problematic Hydric Soils ³ :
☐ Histosol	• •			Sandy Redox	(S5)] 2 cm	Muck (A10)
	pipedon (A2)			Stripped Matri	. ,					Parent Material (TF2)
	istic (A3)			_oamy Mucky			MLRA 1)		-	Shallow Dark Surface (TF12)
	en Sulfide (A4)	(4.4.4)		_oamy Gleyed		2)] Othe	r (Explain in Remarks)
•	d Below Dark Surfa	ace (A11)		Depleted Matr		١		31.	adiac*	ro of hydrophytic vegeteties and
	ark Surface (A12) ⁄ucky Mineral (S1)			Redox Dark S Depleted Dark	•	,		٩II		rs of hydrophytic vegetation and nd hydrology must be present,
-	Gleyed Matrix (S4)			Redox Depres	•	•				s disturbed or problematic.
	Layer (if present)	•	<u>_</u>	tedox Depres	310113 (1 0)				unics	s disturbed of problematic.
Type:	Layer (ii precent)									
Depth (in				-				Hydri	ic Sail	Present? Yes ⊠ No □
Remarks:	,							пуш	ic 30ii	Fresent: Tes 🖂 No 🗌
IYDROLO	OGY									
Wetland Hy										
_	drology Indicator									
Primary Indi	icators (minimum o		uired; ch							dary Indicators (2 or more required)
Primary Indi	icators (minimum o Water (A1)		uired; ch	☐ Water-St	ained Leav		xcept MLF	RA		ater-Stained Leaves (B9) (MLRA 1, 2
Primary Indi ☐ Surface ☐ High Wa	icators (minimum o Water (A1) ater Table (A2)		uired; ch	☐ Water-St	ained Leav		xcept MLF	RA	□ W:	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Primary Indi Surface High Wa Saturatio	icators (minimum o Water (A1) ater Table (A2) on (A3)		uired; ch	☐ Water-St 1, 2, 4	ained Leav 4A, and 4I t (B11)	3)	xcept MLR	RA		ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10)
Primary Indi Surface High Wa Saturatio Water M	icators (minimum o Water (A1) ater Table (A2) on (A3) farks (B1)		uired; ch	☐ Water-St 1, 2, 4 ☐ Salt Crus ☐ Aquatic I	ained Leav 1A, and 4l t (B11) nvertebrate	B)	xcept MLR	RA	Wa	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
Primary Indi Surface High Wa Saturatio Water M Sedimer	icators (minimum o Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)		uired; ch	Water-St 1, 2, 4 Salt Crus Aquatic II Hydroger	ained Leav 4A, and 4I t (B11) nvertebrate n Sulfide C	es (B13) edor (C1)			□ W:□ Dr□ Dr□ Sa	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C
Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep	icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3)		uired; ch	Water-St 1, 2, 4 Salt Crus Aquatic li Hydroger Oxidized	ained Leaven A.	es (B13) dor (C1) eres along	Living Roo		□ W:□ Dr□ Dr□ Sa□ Ge	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (Caeomorphic Position (D2)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; ch	Water-St 1, 2, 4 Salt Crus Aquatic II Hydroger Oxidized Presence	ained Leaver 44, and 41 trians (B11) envertebrate and Sulfide Control Rhizospher end Reduce	es (B13) odor (C1) eres along ed Iron (C4	Living Roo 1)	ts (C3)	Wait Wait Wait Wait Wait Wait Wait Wait Dr Dr Sat Ge Sh	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	icators (minimum o Water (A1) ater Table (A2) on (A3) farks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		uired; cho	Water-St 1, 2, 4 Salt Crus Aquatic II Hydroger Oxidized Presence Recent Ir	ained Leaver 44, and 44 tright (B11) invertebrate in Sulfide Critical Rhizospher of Reduction Reduction	es (B13) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C4)	Living Roo 4) d Soils (C6	ts (C3)	Wish	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (Coemorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	icators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	f one requ		Water-St 1, 2, 4 Salt Crus Aquatic li Hydroger Oxidized Presence Recent lr	ained Leav 4A, and 4I t (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct	es (B13) dor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Roo 1)	ts (C3)	☐ W: ☐ Dr ☐ Dr ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (Caeomorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
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Project/Site: 1655.0001 / Schoultes Property		City/Cou	_{inty:} Marysv	ville / Snohomish	Sampling Date: 03/02/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-30
				ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		_Local re	elief (concave,	, convex, none): Concav	<u>'e</u> Slope (%): 0
Subregion (LRR): A-2	_ _{Lat:} 48.	14421 ⁻	1	Long: -122.171518	18 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this				lf no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	sent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	ırally probler	matic?	(If need	ed, explain any answers in	ı Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampl	ing point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☒ No ☐			the Sampled		
Wetland Hydrology Present? Yes ☒ No ☐		W	ithin a Wetlar	nd? Yes ☒ N	0 📙
Remarks: Wetland F plot. All three wetland criteria	observed	Wetla	nd hydrolog	y confirmed by ground	lwater monitoring study
wedning I plot in three wedning enterin	Cobberved	· Weda	iid ily diolog	y commined by ground	water momeoring oracly.
VEGETATION – Use scientific names of plan	ts.				
T. 0. (T. (1. 0.05)			ant Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1			s? Status	Number of Dominant Sp That Are OBL, FACW, o	
2				Total Number of Domina	
3				Species Across All Strat	a: <u>1</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0			Percent of Dominant Sp That Are OBL, FACW, o	
1				Prevalence Index work	 ksheet:
2.				Total % Cover of:	Multiply by:
3				OBL species	x 1 =
4				FACW species	x 2 =
5				FAC species	x 3 =
	0	= Tota	l Cover	FACU species	x 4 =
Herb Stratum (Plot size: <u>5 ft</u>)	00	Voo	EAC	UPL species	x 5 =
1. Lolium perenne 2 Lotus corniculatus	90 10	No	_ <u>FAC</u> FAC	Column Totals:	(A) (B)
- -				Prevalence Index	= B/A =
3				Hydrophytic Vegetatio	
4				☐ Rapid Test for Hydro	
6.				■ Dominance Test is >	
7				☐ Prevalence Index is	≤3.0 ¹
8					tations ¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascu	. ,
10					hytic Vegetation¹ (Explain)
11	100				and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	100	= Tota	l Cover	be present, unless distu	
1				Hydrophytic	
2	0			Vegetation	. ☑ No □
% Bare Ground in Herb Stratum 0	<u> </u>	= ıota	l Cover	Present? Yes	s⊠ No □
Remarks: Hydrophytic vegetation criterion obser	ved throug	ah dom	ninance test	t indicator	
, a. op., y ao rogoldalon ontonon obsor	. ou unou	g GOII			

Depth	Matrix			Redox Featur				
(inches)	Color (moist)	<u>%</u>		r (moist) %	Type ¹	Loc ²	Texture	Remarks
0 - 21	10YR 3/1	90	10	/R 5/8 and 5 10	<u>C</u>	M, PL	SaLo	
21 - 30	10YR 3/2	100					Sand	Coarse
		_						
	-							
1Typo: C=C	oncontration D=Do	nlotion E	M-Pod	uced Matrix, CS=Cover	od or Coat	od Sand Gr	raine	² Location: PL=Pore Lining, M=Matrix.
				s, unless otherwise n		eu Sanu Gi		cators for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox (S5)	,			2 cm Muck (A10)
	oipedon (A2)			Stripped Matrix (S6)				Red Parent Material (TF2)
☐ Black Hi				₋oamy Mucky Mineral (I	-1) (excep	t MLRA 1)		Very Shallow Dark Surface (TF12)
	en Sulfide (A4)			oamy Gleyed Matrix (F		,		Other (Explain in Remarks)
☐ Depleted	d Below Dark Surfac	e (A11)		Depleted Matrix (F3)				
	ark Surface (A12)		×	Redox Dark Surface (F6	6)			cators of hydrophytic vegetation and
-	lucky Mineral (S1)			Depleted Dark Surface	. ,			etland hydrology must be present,
	Gleyed Matrix (S4)		☐ F	Redox Depressions (F8)		u	nless disturbed or problematic.
	Layer (if present):							
Type:	ahaa).			-				
Depth (in	ches):						Hydric	Soil Present? Yes ⊠ No □
Remarks:								
IYDROLO								
_	drology Indicators							
		one requ					0	dem. In directors (2 on moons are wined)
➤ Surface	vvater (A1)		ired; che	eck all that apply)	(DO) (-			econdary Indicators (2 or more required)
	4 T - I-I - (A O)		ired; che	☐ Water-Stained Lea		except MLR		Water-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)		ired; che	☐ Water-Stained Lea		except MLR	RA [Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
■ Saturation	on (A3)		ired; che	☐ Water-Stained Lea 1, 2, 4A, and 4 ☐ Salt Crust (B11)	В)	except MLR	RA [Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Saturation ■ Water M	on (A3) larks (B1)		ired; che	☐ Water-Stained Lea 1, 2, 4A, and 4 ☐ Salt Crust (B11) ☐ Aquatic Invertebrat	B) es (B13)	except MLR	RA [Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
➤ Saturation Water M Sedimen	on (A3) larks (B1) nt Deposits (B2)		ired; che	☐ Water-Stained Lea 1, 2, 4A, and 4 ☐ Salt Crust (B11) ☐ Aquatic Invertebrat ☐ Hydrogen Sulfide (es (B13) Odor (C1)		RA C	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Saturation Water M Sedimen Drift Dep	on (A3) larks (B1) nt Deposits (B2) posits (B3)		ired; che	 Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph 	es (B13) Odor (C1) eres along	Living Root	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Saturatio Water M Sedimer Drift Dep Algal Ma	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		ired; che	 Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (C) Oxidized Rhizosph Presence of Reduct 	es (B13) Odor (C1) eres along ced Iron (C	Living Root	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Saturation Water M Sedimer Drift Dep Algal Ma	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		ired; che	 Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide 0 Oxidized Rhizosph Presence of Reduct Recent Iron Reduct 	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille	Living Root 4) d Soils (C6	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)			 □ Water-Stained Lea 1, 2, 4A, and 4 □ Salt Crust (B11) □ Aquatic Invertebrat □ Hydrogen Sulfide (□ Oxidized Rhizosph □ Presence of Reduct □ Recent Iron Reduct □ Stunted or Stresse 	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial		(B7)	 Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide 0 Oxidized Rhizosph Presence of Reduct Recent Iron Reduct 	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav		(B7)	 □ Water-Stained Lea 1, 2, 4A, and 4 □ Salt Crust (B11) □ Aquatic Invertebrat □ Hydrogen Sulfide (□ Oxidized Rhizosph □ Presence of Reduct □ Recent Iron Reduct □ Stunted or Stresse 	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
■ Saturation □ Water M □ Sedimer □ Drift Dep □ Algal Ma □ Iron Dep □ Surface □ Inundation □ Sparsely Field Observation	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concavervations:	e Surface	(B7) e (B8)	 Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (Companie) Oxidized Rhizosph Presence of Reduct Recent Iron Reduct Stunted or Stresse Other (Explain in Reduction) 	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser Surface Water	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concaverations: ter Present?	e Surface Yes ⊠	(B7) e (B8) No 🗆	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Stunted or Stresse Other (Explain in Reduction of Stresse)	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concavervations: ter Present?	e Surface Yes 🕱 Yes 🛣	(B7) e (B8) No No	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Stunted or Stresse Other (Explain in Reduced to the control of the contro	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (D	Living Room 4) d Soils (C6) 1) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present?	e Surface Yes 🕱 Yes 🛣	(B7) e (B8) No 🗆	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Stunted or Stresse Other (Explain in Reduction of Stresse)	es (B13) Odor (C1) eres along ced Iron (C- tion in Tille d Plants (D	Living Room 4) d Soils (C6) 1) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concave rvations: ter Present? Present?	e Surface Yes 🔀 Yes 🔀	(B7) e (B8) No	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Stunted or Stresse Other (Explain in Reduced to the control of the contro	es (B13) Ddor (C1) eres along ced Iron (C- tion in Tille d Plants (C- temarks)	Living Root 4) d Soils (C6) 01) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concave rvations: ter Present? Present?	e Surface Yes 🔀 Yes 🔀	(B7) e (B8) No	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Stunted or Stresse Other (Explain in Reduced to the companies of the comp	es (B13) Ddor (C1) eres along ced Iron (C- tion in Tille d Plants (C- temarks)	Living Root 4) d Soils (C6) 01) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concave rvations: ter Present? Present?	e Surface Yes 🔀 Yes 🔀	(B7) e (B8) No	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Stunted or Stresse Other (Explain in Reduced to the companies of the comp	es (B13) Ddor (C1) eres along ced Iron (C- tion in Tille d Plants (C- temarks)	Living Root 4) d Soils (C6) 01) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca Describe Re	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concavervations: ter Present? Present? pillary fringe) proorded Data (stream	e Surface Yes ⊠ Yes ⊠ Yes ⊠ Yes ⊠ n gauge,	(B7) e (B8) No No No Mo monitor	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Stunted or Stresse Other (Explain in Reduction in Reducti	es (B13) Ddor (C1) eres along ded Iron (C- tion in Tille d Plants (C- temarks)	Living Root 4) d Soils (C6) 1) (LRR A) Wetla spections),	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca Describe Re Remarks: Wetland h monitoring	on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concavervations: ter Present? Present? Present? pillary fringe) ecorded Data (stream	e Surface Yes 🗵 Yes 🗵 n gauge, n obse	(B7) Po (B8) No (B8) No (B8) No (B8) No (B8) The properties of the	Water-Stained Lea 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduct Recent Iron Reduct Stunted or Stresse Other (Explain in Reduct) Depth (inches): 0 Depth (inches): 0 Depth (inches): 0 Ing well, aerial photos, arough A1, A2, and	es (B13) Ddor (C1) eres along ced Iron (C- tion in Tille d Plants (C- temarks) previous in A3 prima well insta	Living Root 4) d Soils (C6) 1) (LRR A) Wetla spections), ary indica	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/County	_{/:} Marysv	rille / Snohomish	Sampling Date: 03/02/2018	
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-31	
				ownship, Range: <u>28, 31,</u>		
Landform (hillslope, terrace, etc.): Valley Floor		Local relie	ef (concave,	convex, none): None	Slope (%): 0	
Subregion (LRR): A-2	_ Lat: 48.	144680		Long: -122.1696781	13 Datum: WGS 84	
Soil Map Unit Name: Norma Ioam				NWI classificat	_{ion:} None	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes 🗷	No ☐ (I	f no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology sign	nificantly dist	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ⊠ No □	
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If neede	ed, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point le	ocations, transects,	important features, etc.	
Hydrophytic Vogetation Present?						
Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☒			e Sampled			
Wetland Hydrology Present? Yes ☐ No ☒		with	in a Wetlar	nd? Yes ☐ No) X	
Remarks: Not all three wetland criteria observed, only h	vydrophystia	vocatation	nrocent N	Ion watland hydrology as	nfirmed by aroundwater	
monitoring study.	yuropnyue	vegetation	i present. I	von-wedand nydrology co	minica by groundwater	
VEGETATION – Use scientific names of plan	ts.					
Topic Christian (Diet size, 20 ft)	Absolute			Dominance Test works	heet:	
Tree Stratum (Plot size: 30 ft) 1	% Cover		-	Number of Dominant Spe That Are OBL, FACW, or		
2				Total Number of Domina	_	
3				Species Across All Strata	a: <u>2</u> (B)	
4	^	= Total C	over	Percent of Dominant Spe That Are OBL, FACW, or		
Sapling/Shrub Stratum (Plot size: 15 ft) 1 Salix sitchensis	15	Yes	FACW	Prevalence Index works	shoot:	
1. Sailx Sitcherisis 2.				Total % Cover of:		
3					x 1 = 0	
4.				FACW species 15		
5				FAC species 100	x 3 = <u>300</u>	
	15	= Total C	over		x 4 = <u>0</u>	
Herb Stratum (Plot size: 5 ft)	E	No	EAC	UPL species 0	x 5 = <u>0</u>	
1. Lotus corniculatus 2 Holcus lanatus	95	No Yes	FAC	Column Totals: 115	(A) <u>330</u> (B)	
3			170	Prevalence Index :	= B/A = 2.87	
4				Hydrophytic Vegetation		
5				☐ Rapid Test for Hydro	phytic Vegetation	
6.				■ Dominance Test is >	50%	
7				▼ Prevalence Index is a second of the last of the	≤3.0¹	
8.					ations¹ (Provide supporting or on a separate sheet)	
9				☐ Wetland Non-Vascula	. ,	
10				l -	ytic Vegetation¹ (Explain)	
11	100				and wetland hydrology must	
Woody Vine Stratum (Plot size: 30 ft)		= Total C		be present, unless distur	bed or problematic.	
1				Hydrophytic		
2	0	= Total C	over	Vegetation Present? Yes	⊠ No □	
% Bare Ground in Herb Stratum 0	<u> </u>	- 10tal C	OVEI	. 1000111: 185		
Remarks: Hydrophytic vegetation criterion observ	ved throug	ah domin	ance test	indicator.		
, , , , , , , , , , , , , , , , , , , ,		<u> </u>		•		

inches)) - 15	Color (moint)	%	Colo	r (moist)	dox Featur %	Type ¹	Loc ²	Texture			Remarks	
	Color (moist) 10YR 3/2	97		/R 4/6	3	C Type	M, PL	SaLo			Remarks	
5 - 30	2.5Y 4/2			Y 5/6	_ _ 2	CS	M, PL	Sand		Cooree		
3 - 30	2.51 4/2	98	_ 2.5	1 3/0			IVI, FL	Sanu		Coarse	;	
								-				
	=							-				
	oncentration, D=De						ed Sand Gr					, M=Matrix.
	Indicators: (Appl	cable to				otea.)					-	dric Soils ³ :
Histosol	· ,			Sandy Redox						Muck (A10	,	
⊢ Histic Ep │ Black His	ipedon (A2)			Stripped Matri ₋oamy Mucky	٠, ,	E1) (avcan	+ MI PA 1\				erial (TF2) ark Surface	(TE12)
	n Sulfide (A4)			_oamy Gleyed			LIVILKA I)				n Remarks)	
	Below Dark Surfa	ce (A11)		Depleted Matr	•	۷)			Other	(Lxpiaiii i	ii iteiliaiks,	
	rk Surface (A12)	50 (7111)		Redox Dark S		3)		³ Inc	dicator	s of hydro	phytic vege	tation and
-	ucky Mineral (S1)			Depleted Dark	`	,					y must be	
Sandy G	leyed Matrix (S4)			Redox Depres		. ,					or problem	
strictive I	Layer (if present):			-	-	·					-	
Type:				-								
Depth (inc	ches):							Hydric	: Soil I	Present?	Yes □	No 🗵
								,				
	soils indicators							1.3				
o hydric s												
DROLO Setland Hydric	GY drology Indicators	observ	ed.									
D hydric s DROLO Tetland Hydrimary India	GY drology Indicators cators (minimum of	observ	ed.	eck all that ap					Secon			nore required)
DROLO etland Hydrimary India Surface N	GY drology Indicators cators (minimum of Water (A1)	observ	ed.	eck all that ap □ Water-St	tained Lea		except MLF		Secon	ter-Staine	d Leaves (E	nore required) 89) (MLRA 1 , 2
DROLO etland Hydimary India Surface V High Wa	GY drology Indicators cators (minimum of Water (A1) ter Table (A2)	observ	ed. uired; che	eck all that ap □ Water-St 1, 2,	tained Lea		except MLR		Secon □ Wa	ter-Staine	d Leaves (E I B)	39) (MLRA 1, :
DROLO etland Hydimary Indic Surface V High War	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3)	observ	ed. uired; che	eck all that ap ☐ Water-St 1, 2,	tained Lea 4A, and 4 st (B11)	В)	except MLR		Secon □ Wa	ter-Staine 4A, and 4 ainage Pat	d Leaves (E IB) terns (B10)	39) (MLRA 1 , 2
DROLO etland Hydimary India Surface \(\) High Wa Saturatio Water Ma	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)	observ	ed.	eck all that ap Water-St 1, 2, Salt Crus Aquatic I	tained Lea 4A, and 4 st (B11) Invertebrat	tes (B13)	except MLF		Secon	ater-Staine 4A, and 4 ainage Pat y-Season \	d Leaves (E IB) terns (B10) Vater Table	39) (MLRA 1 , 3
DROLO etland Hydimary India Surface V High Wa Saturatio Water Ma	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)	observ	ed.	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogei	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (tes (B13) Odor (C1)			Secon Wa Dra Dry Sa	ater-Staine 4A, and 4 ainage Pat y-Season Visturation Vis	d Leaves (E I B) terns (B10) Water Table sible on Ael	39) (MLRA 1, 3 e (C2) rial Imagery (C
DROLO etland Hyd imary India Surface N High Wat Saturatia Water Ma Sedimen Drift Dep	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)	observ	ed.	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogel Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (Rhizosph	tes (B13) Odor (C1) eres along	Living Roo		Secon Wa Dra Dry Sa Ge	ater-Staine 4A, and 4 ainage Pat y-Season \ turation Vis omorphic	d Leaves (E IB) terns (B10) Vater Table sible on Ael Position (D2	39) (MLRA 1, 3 e (C2) rial Imagery (C
DROLO etland Hydimary Indic Surface V High Wa Saturatio Water Mi Sedimen Drift Dep Algal Ma	GY drology Indicators eators (minimum of Nater (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	observ	ed.	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (Rhizosph e of Reduc	tes (B13) Odor (C1) eres along ced Iron (C	Living Roo 4)	RA [Secono Wa Dra Dry Sa Gee	ter-Staine 4A, and 4 ainage Pat y-Season \ turation Visomorphic allow Aqui	d Leaves (E B) terns (B10) Vater Table sible on Aer Position (D2 tard (D3)	39) (MLRA 1, 3 e (C2) rial Imagery (C
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Dhydric s TDROLO etland Hydrimary India Surface V High Wa Saturation Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundation	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	observi	ed. uired; che	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized Presence Recent Ir	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduction Reduction	tes (B13) Odor (C1) eres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) ed Soils (C6	RA [Second Wa Dra Dry Sa Ge Sh RA	ter-Staine 4A, and 4 ainage Pat y-Season \ turation Vis omorphic allow Aqui C-Neutral ised Ant M	d Leaves (EIB) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5)	99) (MLRA 1, 2) (C2) (C2) (C2) (LRR A)
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Polydric s TOROLO Tetland Hydrimary India Surface V High Water Marging Sediment Orift Dep Algal Ma Inon Dep Surface S Inundation Sparsely Teld Observators Surface Water Table Surface Water Table Surface Water Table	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present?	observi	ed. uired; che (B7) ce (B8)	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogel Oxidized Presence Recent II Stunted o	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Green Reduct In	tes (B13) Odor (C1) eres along ced Iron (Cotion in Tille d Plants (D	Living Roo 4) d Soils (C6 01) (LRR A)	ts (C3) [Second War Dry Sa Ge Sh FA Raa	ater-Staine 4A, and 4 ainage Pat y-Season Vituration Vit comorphic lallow Aqui C-Neutral ised Ant M est-Heave	d Leaves (EIB) terns (B10) Water Table sible on Ael Position (D2) tard (D3) Test (D5)	99) (MLRA 1, 2) (C2) rial Imagery (C2) (LRR A) (D7)
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Project/Site: 1655.0001 / Schoultes Property		City/Co	ounty: _	Marysv	/ille / Snohomish	Sampling Date:	03/02/2018
Applicant/Owner: Columbia Bank / Rob Draper		-			State: WA	· -	
Investigator(s): Emily Swaim, Richard Peel						· -	
Landform (hillslope, terrace, etc.): Valley Floor							ope (%): 0
Subregion (LRR): A-2		_	,				,
Soil Map Unit Name: Norma Ioam					NWI classific		
Are climatic / hydrologic conditions on the site typical for the					If no, explain in Remarks		
Are Vegetation, Soil, or Hydrology si	gnificantly dis	turbed'	?	Are "N	ormal Circumstances" pr	esent? Yes 🗵	No 🗆
Are Vegetation, Soil, or Hydrology na					ed, explain any answers		_
SUMMARY OF FINDINGS – Attach site map				•			eatures, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐	 1						
Hydric Soil Present? Yes No X	=			Sampled		_	
Wetland Hydrology Present? Yes ☐ No 🗵		'	within	a Wetla	nd? Yes □	No 🗵	
Remarks: Not all three wetland criteria observed, hydronitoring study.	rophytic vege	etation	presen	nt. Non-v	wetland hydrology confi	irmed by groundw	7ater
VEGETATION – Use scientific names of pla	nts.						
Tree Stratum (Plot size: 30 ft)	Absolute			ndicator	Dominance Test wor		
1	% Cover				Number of Dominant S That Are OBL, FACW,	Species , or FAC: <u>2</u>	(A)
2					Total Number of Domi	nant	
3					Species Across All Str	rata: <u>2</u>	(B)
4	0	= Tot	tal Cov	er	Percent of Dominant S That Are OBL, FACW,		<u>′</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft)							<u> </u>
1					Prevalence Index wo		
2					Total % Cover of:		
3					OBL species		
4					FACW species FAC species		
5	_		tal Cov		FACU species		
Herb Stratum (Plot size: <u>5 ft</u>)					·	x 5 =	
1. Holcus lanatus	30	Yes			Column Totals:		
2. Juncus effusus	20	Yes		FACW			
3. Rubus armeniacus	10	No	<u>F</u>	FAC_		x = B/A =	
4					Hydrophytic Vegetat		
5					Rapid Test for Hyd		'n
6					☑ Dominance Test is		
7					☐ Prevalence Index		
8					☐ Morphological Ada data in Remark	aptations (Provide ks or on a separate	
9					☐ Wetland Non-Vaso	•	,
10		. ——			☐ Problematic Hydro	phytic Vegetation¹	(Explain)
11	60		<u> </u>		¹ Indicators of hydric so		
Woody Vine Stratum (Plot size: 30 ft)		= 101	tal Cov	er	be present, unless dis	turbed or problema	atic.
1					Hydrophytic		
2	0	= Tot	tal Cov	er	Vegetation Present? Yes	es ⊠ No 🗌	
% Bare Ground in Herb Stratum 40	-						
Remarks: Hydrophytic vegetation criterion obse	erved throu	gh do	minar	nce tes	t indicator.		

Depth inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Texture	Remarks
) - 12	10YR 2/2	99		4/6	1	C	M	SaLo	
2 - 15	5y 4/3	97	5yr	3/4	3	CS	M	Sand	Coarse
5 - 30	10 gy 3/1	99	_ <u> </u>	yr 4/6	1	CS	M, PL	Sand	Coarse
una: C=C	Concentration, D=De	enletion	 PM-Red	uced Matrix C	'S=Cove	red or Coat	ed Sand G	raine	² Location: PL=Pore Lining, M=Matrix.
	Indicators: (Appl						eu Sanu Gi		dicators for Problematic Hydric Soils ³ :
Histosol	(A1)			Sandy Redox (S5)				2 cm Muck (A10)
Histic Ep	oipedon (A2)			Stripped Matrix					Red Parent Material (TF2)
Black Hi	istic (A3)		□ ι	oamy Mucky	Mineral (l	F1) (excep	t MLRA 1)		Very Shallow Dark Surface (TF12)
Hydroge	en Sulfide (A4)		□ Լ	oamy Gleyed	Matrix (F	⁻ 2)			Other (Explain in Remarks)
•	d Below Dark Surfa	ce (A11)		Depleted Matri	. ,				
	ark Surface (A12)			Redox Dark Su	•	•		³ In	dicators of hydrophytic vegetation and
-	lucky Mineral (S1)			Depleted Dark					wetland hydrology must be present,
	Bleyed Matrix (S4)			Redox Depress	sions (F8	5)		1	unless disturbed or problematic.
Type:	Layer (if present):								
	abaa\.			-					
emarks:	soils indicators							Hydrid	c Soil Present? Yes □ No ⊠
emarks: hydric	soils indicators	observe						Hydrid	c Soil Present? Yes ∐ No ⊠
emarks: hydric : DROLO etland Hy	soils indicators OGY rdrology Indicator	observe	ed.	eck all that app	olv)				
emarks: Dhydric : DROLO etland Hy imary Indi	soils indicators OGY Idrology Indicator cators (minimum of	observe	ed.			aves (B9) (e	except MLF		Secondary Indicators (2 or more required)
DROLO etland Hy mary Indi Surface	Soils indicators OGY Idrology Indicators cators (minimum of Water (A1)	observe	ed.	☐ Water-Sta	ained Lea	. , .	except MLF		Secondary Indicators (2 or more required) ☐ Water-Stained Leaves (B9) (MLRA 1 ,
DROLO etland Hy imary Indi Surface High Wa	soils indicators OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2)	observe	ed.	☐ Water-Sta	ained Lea A, and 4	. , .	except MLF		Secondary Indicators (2 or more required) □ Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B)
DROLO etland Hy mary Indi Surface High Wa Saturatio	pogy varology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	observe	ed.	☐ Water-Sta 1, 2, 4 ☐ Salt Crust	ained Lea A, and 4 (B11)	lB)	except MLF	RA	Secondary Indicators (2 or more required) ☐ Water-Stained Leaves (B9) (MLRA 1 , 4A , and 4B) ☐ Drainage Patterns (B10)
DROLO etland Hy mary Indi Surface High Wa Saturatio Water M	soils indicators OGY Idrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)	observe	ed.	☐ Water-Sta 1, 2, 4 ☐ Salt Crust ☐ Aquatic In	ained Lea A, and 4 (B11) overtebra	tes (B13)	except MLF	RA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer	or (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	observe	ed.	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	ained Lea A, and 4 (B11) overtebrat Sulfide (tes (B13) Odor (C1)	·	RA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	posits indicators organization organizatio	observe	ed.	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I	ained Lea A, and 4 (B11) overtebrai Sulfide (Rhizosph	tes (B13) Odor (C1) neres along	Living Roo	RA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	pogy rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	observe	ed.	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence	ained Lea A, and 4 (B11) avertebrat Sulfide (Rhizosph of Reduc	tes (B13) Odor (C1) heres along ced Iron (C	Living Roo 4)	RA tts (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2) Shallow Aquitard (D3)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	pogy redrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	observe	ed.	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	ained Lea A, and 4 (B11) evertebrai Sulfide (Rhizosph of Reduction	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6	RA tts (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	soils indicators OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	s: f one requ	ed. uired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o	ained Lea A, and 4 (B11) overtebrate Sulfide (Rhizosph of Reduct on Reduct r Stresse	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille d Plants (D	Living Roo 4) d Soils (C6	RA tts (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Ca) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Project/Site: 1655.0001 / Schoultes Property		City/Count	_{ty:} Marysv	rille / Snohomish	Sampling Date: 03/02/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-33
				ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local reli	ef (concave,	, convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: 48	.146165		Long: -122.1695434	0 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this				f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplin	ng point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ⊠ No □			he Sampled		
Wetland Hydrology Present? Yes ☒ No ☐		with	nin a Wetlar	nd? Yes ☒ No) <u> </u>
Remarks:	. 1	W/1	11 1 1	C 11 1	
Wetland F plot. All three wetland criteria	observed	. welland	ı nyurolog	y commined by ground	water monitoring study.
VEGETATION – Use scientific names of plan	ts.				
			t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			Number of Dominant Spo That Are OBL, FACW, or	
2				Total Number of Domina	ınt
3				Species Across All Strata	a: <u>2</u> (B)
4	^			Percent of Dominant Spe	
Sapling/Shrub Stratum (Plot size: 15 ft)	0	= Total C	Cover	That Are OBL, FACW, or	r FAC: <u>100%</u> (A/B)
1. Rubus armeniacus	25	Yes	FAC	Prevalence Index work	sheet:
2				Total % Cover of:	Multiply by:
3					x 1 =
4					x 2 =
5					x 3 =
Herb Stratum (Plot size: 5 ft)	25	= Total C	Cover		x 4 =
1. Holcus lanatus	90	Yes	FAC		x 5 = (A) (B)
2. Vicia americana	5	No	FAC	Column rotals.	(A) (D)
3. Arctostaphylos uva-ursi	3	No	FACU	Prevalence Index	= B/A =
4. Lotus corniculatus	2	No	FAC	Hydrophytic Vegetation	n Indicators:
5				☐ Rapid Test for Hydro	
6				▼ Dominance Test is >	
7				Prevalence Index is:	
8					ations ¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	• • • • • • • • • • • • • • • • • • • •
10	-		-	☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
11	100	= Total C	Cover		and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)				be present, unless distur	bed or problematic.
1				Hydrophytic	
2	0		20105	Vegetation Present? Yes	⊠ No □
% Bare Ground in Herb Stratum 0	<u> </u>	= Total C	Jover	Fresent: 168	
Remarks: Hydrophytic vegetation criterion observ			nance test	t indicator	
Trydrophytic vegetation chtenon obser	vea imouţ	gir aviilli	idiloc (cs	i indicator.	

epth nches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Textur	e	Rema	rks
- 16	10YR 3/2	95		R 4/6	5	C	M, PL	SaLo		Roma	1110
6 - 25	2.5Y 5/3	90		Y 6/6	10	CS	M	Sand		Coarse	
5 - 30	5GY 6/1			YR 5/8				SaCl			
	00.07.			111 0/0				Ouci			
								-			
pe: C=C	Concentration, D=De	epletion,	- RM=Red	uced Matrix, C	S=Cover	ed or Coat	ed Sand Gr	ains.	² Loc	ation: PL=Pore Lir	ning, M=Matrix.
dric Soil	Indicators: (Appl	icable to	all LRR	s, unless oth	erwise no	ted.)		In	dicato	rs for Problematio	: Hydric Soils ³ :
Histosol	` '			Sandy Redox (Muck (A10)	
	pipedon (A2)			Stripped Matrix	` '	- 4				Parent Material (TF	
	istic (A3)			oamy Mucky			t MLRA 1)		-	Shallow Dark Surfa	, ,
	en Sulfide (A4)	(111)		oamy Gleyed	-	2)) Otne	r (Explain in Rema	rks)
	d Below Dark Surfa ark Surface (A12)	ce (ATT)		Depleted Matri Redox Dark Su	. ,	`		31,-	ndinata	rs of hydrophytic ve	agatation and
	Mucky Mineral (S1)			Depleted Dark	•	•		11		nd hydrology must	-
-	Gleyed Matrix (S4)			Redox Depres						s disturbed or probl	
	Layer (if present):				()	<u> </u>				F	
Туре:											
Depth (in	nches):							Hvdri	ic Soil	Present? Yes D	R No □
marks:	criterion obser			6 indicator.				Hydri	ic Soil	Present? Yes [⊠ No □
marks: dric soil	criterion obser	ved thro		6 indicator.				Hydri	ic Soil	Present? Yes [⊠ No □
marks: dric soil	Criterion obser	ved thro	ough F6		nlv)			Hydri			
marks: dric soil DROLC otland Hy mary Indi	OGY rdrology Indicators	ved thro	ough F6	eck all that app		ves (B0) (e	vecant MI P		Secon	ndary Indicators (2 d	or more required)
DROLO Itland Hy mary Indi Surface	OGY rdrology Indicators icators (minimum of	ved thro	ough F6	eck all that app ☐ Water-Sta	ained Leav	. , .	except MLR		Secon	ndary Indicators (2 o ater-Stained Leave	or more required)
marks: DROLO tland Hy mary Indi Surface High Wa	OGY vdrology Indicators cators (minimum of Water (A1) ater Table (A2)	ved thro	ough F6	eck all that app Water-Sta	ained Leav I A, and 4 I	. , .	except MLR		Secor	ndary Indicators (2 o ater-Stained Leave 4A, and 4B)	or more required)
DROLO tland Hy mary Indi Surface High Wa Saturatio	OGY vdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	ved thro	ough F6	eck all that app Water-Sta 1, 2, 4	ained Leav I A, and 4I t (B11)	В)	xcept MLR	RA	Secor	ndary Indicators (2 o ater-Stained Leave 4A, and 4B) rainage Patterns (B	or more required) s (B9) (MLRA 1 , 2
DROLO tland Hy mary Indi Surface High Wa Saturati Water M	OGY I criterion obser OGY Idrology Indicators I	ved thro	ough F6	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir	ained Leav I A, and 4I t (B11) nvertebrate	B) es (B13)	except MLR	RA	Secor W Dr	ndary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B y-Season Water Ta	or more required) as (B9) (MLRA 1 , 2
DROLO Citland Hy mary Indi Surface High Wa Saturation Water M Sedimen	OGY rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)	ved thro	ough F6	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen	ained Leaver A.A., and 4I (B11) and a converte brate of Sulfide Conve	es (B13) Odor (C1)	·	RA	Secor W Dr	ndary Indicators (2 of ater-Stained Leave 4A, and 4B) ainage Patterns (B y-Season Water Ta aturation Visible on	or more required) s (B9) (MLRA 1 , 2 10) able (C2) Aerial Imagery (C
DROLO Talland Hy mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	ved thro	ough F6	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized	ained Leaver AA, and 4I to (B11) invertebrate Sulfide C	es (B13) Odor (C1) eres along	Living Roo	RA	Secor W Dr Dr	ndary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B ry-Season Water Ta aturation Visible on ecomorphic Position	or more required) as (B9) (MLRA 1 , 2 10) able (C2) Aerial Imagery (C (D2)
DROLO DROLO DITION OF THE PROPERTY OF THE PROP	OGY rdrology Indicators dicators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	ved thro	ough F6	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence	ained Leaver A.A., and 4I and	es (B13) Odor (C1) eres along ed Iron (C	Living Root	RA tts (C3)	Secor W Dr Dr Sa GG	ndary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (Bry-Season Water Taturation Visible on ecomorphic Position hallow Aquitard (D3	or more required) s (B9) (MLRA 1 , 2 10) able (C2) Aerial Imagery (C (D2)
DROLO Stland Hy Mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	OGY varology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) ant Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ved thro	ough F6	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro	ained Leaver A.A., and 41 to (B11) invertebrate Sulfide Control Reduction Re	es (B13) Odor (C1) eres along ed Iron (C-	Living Root 4) d Soils (C6	RA tts (C3)	Secor W Dr Dr Sa Ga Ga St Gr Fr	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B y-Season Water Taturation Visible on ecomorphic Position hallow Aquitard (D3 AC-Neutral Test (D5	or more required) s (B9) (MLRA 1 , 2 10) able (C2) Aerial Imagery (C (D2))
DROLO tland Hy mary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	OGY rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	ved thro	ough Fe	eck all that app Water-Sta 1, 2, 4 Salt Crusi Aquatic Ir Hydrogen Oxidized Presence Recent Iro Stunted o	ained Leav IA, and 4I I (B11) Invertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (D	Living Root	RA tts (C3)	Secor W Dr Dr Sa Gr Sr Fr Fr Ra	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on allow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (or more required) as (B9) (MLRA 1, 2) 10) able (C2) Aerial Imagery (C) (D2) b) 5) D6) (LRR A)
DROLO tland Hy mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati	OGY Idrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial	s: f one requ	ough Fe	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro	ained Leav IA, and 4I I (B11) Invertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	RA tts (C3)	Secor W Dr Dr Sa Gr Sr Fr Fr Ra	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B y-Season Water Taturation Visible on ecomorphic Position hallow Aquitard (D3 AC-Neutral Test (D5	or more required) as (B9) (MLRA 1, 2) 10) able (C2) Aerial Imagery (C (D2) b) 5) D6) (LRR A)
DROLO Stland Hy mary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concar	s: f one requ	ough Fe	eck all that app Water-Sta 1, 2, 4 Salt Crusi Aquatic Ir Hydrogen Oxidized Presence Recent Iro Stunted o	ained Leav IA, and 4I I (B11) Invertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	RA tts (C3)	Secor W Dr Dr Sa Gr Sr Fr Fr Ra	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on allow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (or more required) as (B9) (MLRA 1, 2) 10) able (C2) Aerial Imagery (C) (D2) b) 5) D6) (LRR A)
DROLO Stland Hy Mary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	OGY varology Indicators dicators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concar revations:	ved thro	uired; che	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o	ained Leav IA, and 4I I (B11) Invertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in R	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	RA tts (C3)	Secor W Dr Dr Sa Gr Sr Fr Fr Ra	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on allow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (or more required) as (B9) (MLRA 1, 2 10) able (C2) Aerial Imagery (C (D2) b) 5) D6) (LRR A)
DROLC Itland Hy mary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Itd Obser Iface Water	OGY rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concar rvations: ter Present?	ved thro	ough Fe	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leav IA, and 4I I (B11) Invertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in R	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6	RA tts (C3)	Secor W Dr Dr Sa Gr Sr Fr Fr Ra	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on allow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (or more required) as (B9) (MLRA 1, 2 10) able (C2) Aerial Imagery (C (D2) b) 5) D6) (LRR A)
DROLC etland Hy mary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	OGY Idrology Indicators (cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial (v Vegetated Concar rvations: ter Present?	ved thro	uired; che	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o	ained Leaver A. A. and 4I (B11) invertebrate Sulfide Con Reduction	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (D	Living Root 4) d Soils (C6) 1) (LRR A)	ts (C3)	Secor W Dr Dr Sa GG Sr	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on allow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (or more required) as (B9) (MLRA 1, 2 10) able (C2) Aerial Imagery (C (D2) b) 5) D6) (LRR A) cks (D7)
marks: dric soil DROLC etland Hy mary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely eld Observater Table turation Feludes ca	OGY rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concar rvations: ter Present? Present? Present? pillary fringe)	s: f one required Surface Yes Yes Yes Yes Yes	ough Fe	eck all that app Water-Sta 1, 2, 4 Salt Crusi Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leaver A., and 4I. (B11) Invertebrate Sulfide Con Reduction Reductor Stressed plain in Research	es (B13) Ddor (C1) eres along ed Iron (C- cion in Tille d Plants (D- emarks)	Living Roof 4) d Soils (C6 1) (LRR A)	ts (C3)	Secor W Dr Dr Sa GG Sr Ra Fr	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on a comorphic Position hallow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (ost-Heave Hummore)	or more required) as (B9) (MLRA 1, 2 10) able (C2) Aerial Imagery (C (D2) b) 5) D6) (LRR A) cks (D7)
marks: dric soil DROLC etland Hy mary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely eld Observater Table turation Feludes ca	OGY Identify Indicators Iden	s: f one required Surface Yes Yes Yes Yes Yes	ough Fe	eck all that app Water-Sta 1, 2, 4 Salt Crusi Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leaver A., and 4I. (B11) Invertebrate Sulfide Con Reduction Reductor Stressed plain in Research	es (B13) Ddor (C1) eres along ed Iron (C- cion in Tille d Plants (D- emarks)	Living Roof 4) d Soils (C6 1) (LRR A)	ts (C3)	Secor W Dr Dr Sa GG Sr Ra Fr	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on a comorphic Position hallow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (ost-Heave Hummore)	or more required) as (B9) (MLRA 1, 2 10) able (C2) Aerial Imagery (C (D2) b) 5) D6) (LRR A) cks (D7)
DROLC Stland Hy mary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Id Observation Feduces ca	OGY rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concar rvations: ter Present? Present? Present? pillary fringe)	s: f one required Surface Yes Yes Yes Yes Yes	ough Fe	eck all that app Water-Sta 1, 2, 4 Salt Crusi Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ained Leaver A., and 4I. (B11) Invertebrate Sulfide Con Reduction Reductor Stressed plain in Research	es (B13) Ddor (C1) eres along ed Iron (C- cion in Tille d Plants (D- emarks)	Living Roof 4) d Soils (C6 1) (LRR A)	ts (C3)	Secor W Dr Dr Sa GG Sr Ra Fr	adary Indicators (2 of ater-Stained Leave 4A, and 4B) rainage Patterns (B by-Season Water Taturation Visible on a comorphic Position hallow Aquitard (D3 AC-Neutral Test (D5 aised Ant Mounds (ost-Heave Hummore)	or more required) as (B9) (MLRA 1, 2 10) able (C2) Aerial Imagery (C (D2) b) 5) D6) (LRR A) cks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/C	ounty: Ma	arysvil	le / Snohomish	Samr	oling Date: 03	/02/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-		State: WA		-	
Investigator(s): Richard Peel, Emily Swaim			Section	ion, Tow	nship, Range: 28,	31, 05N		
Landform (hillslope, terrace, etc.): Valley Floor		Loca	l relief (con	ncave, c	convex, none): Con	icave	Slope	(%): 0
Subregion (LRR): A2	Lat: 48.	1456	4553834	417	Long: -122.1667	767688	Datum:	WGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI class			
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed	1? A	Are "Nor	mal Circumstances"	present?	Yes 🗵 No [
Are Vegetation, Soil, or Hydrology natu				f needed	d, explain any answe	ers in Rema	arks.)	
SUMMARY OF FINDINGS – Attach site map				oint lo	cations, transe	cts, impo	ortant featu	ures, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵								
Hydric Soil Present? Yes ☐ No ☒			Is the San	-				
Wetland Hydrology Present? Yes ☐ No ☒			within a W	Wetland	l? Yes ∟] No ⊠		
Remarks: No wetland criteria observed; mowed Himal	avan blacki	perry.	Non-wetla	and hvd	rology confirmed b	ov groundy	vater monitori	ing study.
	J	,	- 10 11 - 1-1			, 8		
VEGETATION – Use scientific names of plan	ts.							
T 0 (D	Absolute		inant Indic		Dominance Test w	orksheet:		
Tree Stratum (Plot size: 30 ft) 1		-	cies? Sta		Number of Dominar That Are OBL, FAC		: <u>0</u>	(A)
2					Total Number of Do	minant		
3					Species Across All	Strata:	0	(B)
4		= To	tal Cover		Percent of Dominar		. 0	(A/D)
Sapling/Shrub Stratum (Plot size: 15 ft)		_ 10	nai Govei		That Are OBL, FAC	vv, or FAC:	: <u>0</u>	(A/B)
1					Prevalence Index v	worksheet	:	
2					Total % Cover			-
3					_		x 1 = 0	
4					FACW species 0			
5							x 3 = 0	
Herb Stratum (Plot size: 5 ft)	0	= Tc	otal Cover		FACU species 0		x 4 = 0	
 /					UPL species 0		·	
1 2					Column Totals: 0		(A) <u>0</u>	(B)
3.					Prevalence In	dex = B/A	=	<u> </u>
4.					Hydrophytic Veget	ation Indi	cators:	
5.				,	☐ Rapid Test for H	- - - - - - - - - - - - - - - - - - -	Vegetation	
6.				,	☐ Dominance Tes	t is >50%		
7.					▼ Prevalence Index	ex is ≤3.0¹		
8.					☐ Morphological A		¹ (Provide sup a separate she	
9					☐ Wetland Non-Va		•	561)
10					☐ Problematic Hyd			(nlain)
11					¹ Indicators of hydric		•	. ,
Woody Vine Stratum (Plot size: 30 ft)	0	= Tc	otal Cover		be present, unless of			
1					Hydrophytic			
2					Vegetation	V 🗆	Na 😡	
% Bare Ground in Herb Stratum 100	0	= To	otal Cover		Present?	Yes 🗌 I	NO 🔀	
Remarks: No hydrophytic vegetation indicators of	hoom:							
ino nyuropnytic vegetation indicators o	insei veu.							

Depth	Matrix				ox Featu			_	
(inches)	Color (moist) 10YR 2/2	<u>%</u>		r (moist)	<u>%</u>	<u>Type¹</u> C	Loc ²	Textu	
0 - 18		99		/R 5/4	_1			SaL	
18 - 27	2.5y 4/2	97	_ <u></u>	3/4	3	CS	M	San	
27 - 30	5gy 4/1	98	7.5	yr 4/4	2	CS	M	San	d Coarse
					_				
								,	
			<u> </u>						
									
1Type: C=C	Concentration, D=D	onlotion I		uood Matrix C	S-Covo	rad or Coat	ad Sand C	roino	21 costion: DI = Doro Lining M=Motrix
	I Indicators: (App						eu Sanu G		² Location: PL=Pore Lining, M=Matrix. ndicators for Problematic Hydric Soils ³ :
Histoso				<i>.</i> Sandy Redox (,			☐ 2 cm Muck (A10)
	pipedon (A2)			Stripped Matrix					Red Parent Material (TF2)
	listic (A3)			₋oamy Mucky I			t MLRA 1)		☐ Very Shallow Dark Surface (TF12)
	en Sulfide (A4)			oamy Gleyed		2)			Other (Explain in Remarks)
	ed Below Dark Surfa	ace (A11)		Depleted Matrix				0-	
	ark Surface (A12)			Redox Dark Su	•	,		3	Indicators of hydrophytic vegetation and
	Mucky Mineral (S1) Gleyed Matrix (S4)			Depleted Dark Redox Depress		. ,			wetland hydrology must be present,
-	Layer (if present)		F	Redox Depress	SIONS (FO)		1	unless disturbed or problematic.
Type:	Layer (ii present)								
Depth (ii				•				Hydr	ric Soil Present? Yes ☐ No ⊠
Remarks:	,							пуш	TIC SOIL Present? Tes No
No hydric	soils indicators	observe	ed.						
HYDROLO	OGY								
Wetland H	ydrology Indicator	rs:							
Primary Ind	licators (minimum c	of one requ	uired; che	eck all that app	ly)				Secondary Indicators (2 or more required)
☐ Surface	Water (A1)			☐ Water-Sta	ined Lea	ves (B9) (e	xcept ML	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
☐ High W	ater Table (A2)			1, 2, 4	A, and 4	·B)			4A, and 4B)
☐ Saturati	ion (A3)			☐ Salt Crust	(B11)				☐ Drainage Patterns (B10)
☐ Water N	Marks (B1)			☐ Aquatic In	vertebrat	tes (B13)			☐ Dry-Season Water Table (C2)
☐ Sedime	nt Deposits (B2)			☐ Hydrogen	Sulfide (Odor (C1)			☐ Saturation Visible on Aerial Imagery (C9
☐ Drift De	posits (B3)			Oxidized F	Rhizosph	eres along	Living Roo	ots (C3)	☐ Geomorphic Position (D2)
☐ Algal M	at or Crust (B4)			☐ Presence	of Reduc	ced Iron (C	4)		☐ Shallow Aquitard (D3)
☐ Iron De	posits (B5)			☐ Recent Iro	n Reduc	tion in Tille	d Soils (C6	3)	☐ FAC-Neutral Test (D5)
☐ Surface	Soil Cracks (B6)			☐ Stunted or	r Stresse	d Plants (D	1) (LRR A	.)	Raised Ant Mounds (D6) (LRR A)
☐ Inundat	ion Visible on Aeria	al Imagery	(B7)	☐ Other (Exp	plain in F	Remarks)			☐ Frost-Heave Hummocks (D7)
☐ Sparsel	y Vegetated Conca	ve Surfac	e (B8)						
Field Obse	rvations:								
Surface Wa	ater Present?	Yes 🗌	No 🗷	Depth (inche	s):				
Water Table	e Present?	Yes 🗵	No 🗌	Depth (inche	s): <u>1</u> 8				
	Present?	Yes 🗵	No 🗌	Depth (inche			Wet	land Hv	drology Present? Yes □ No ⊠
Saturation I					,				
(includes ca			monitori	ing well aerial	photos.	previous in	spections).	, if availa	able:
(includes ca	ecorded Data (stream	am gauge	, monitori	ing won, dona	' '	'			
(includes ca Describe Ro		am gauge,	, moniton	mig won, donar					
(includes ca Describe Ro Remarks:	ecorded Data (strea					-			
(includes ca Describe Ro Remarks:	ecorded Data (strea	dicators	observ	ed. Monitori	ing wel	l installed	d at moni		location MP-34 indicated non-wetlan
(includes ca Describe Ro Remarks: No wetlar	ecorded Data (streated)	dicators	observ	ed. Monitori	ing wel	l installed	d at moni		location MP-34 indicated non-wetlar

Project/Site: 1655.0001 / Schoultes Property		City/C	ounty	. Marysv	rille / Snohomish	Samr	oling Date: 03/	02/2018
Applicant/Owner: Columbia Bank / Rob Draper		-	-		State: WA		_	
Investigator(s): Emily Swaim, Richard Peel				Section, To	ownship, Range: 28, 3	1, 05N		
Landform (hillslope, terrace, etc.): Valley Floor								%): <u></u> 0
Subregion (LRR): A-2	Lat: 48.	1403	24	•	Long: -122.16446	610	Datum:	WGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI classifi			
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remarks			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed	l?	Are "No	ormal Circumstances" pr	esent?	Yes 🗵 No 🗆]
Are Vegetation, Soil, or Hydrology natu				(If need	ed, explain any answers	in Rema	arks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sam	pling	g point l	ocations, transect	s, imp	ortant featu	res, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				e Sampled		N (57)		
Wetland Hydrology Present? Yes ☐ No 🗵			withi	n a Wetlar	nd? Yes □	NO 🔀		
Remarks: Not all three wetland criteria observed, hydro monitoring study.	phytic vege	tation	pres	ent. Non-v	vetland hydrology conf	irmed by	y groundwater	
VEGETATION - Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			Indicator	Dominance Test wor			
1					Number of Dominant S That Are OBL, FACW		: <u>2</u>	(A)
2.								_ ()
3					Total Number of Domi Species Across All Str		2	(B)
4					Percent of Dominant S	Snecies		
Sapling/Shrub Stratum (Plot size: 15 ft)	0	= To	tal Co	over	That Are OBL, FACW		100%	_ (A/B)
1					Prevalence Index wo	rksheet	<u> </u>	
2.					Total % Cover of:		Multiply by	<u>:</u>
3							x 1 = <u>0</u>	
4					FACW species 0			
5	_						x 3 = <u>285</u>	
Herb Stratum (Plot size: 5 ft)	0	= To	tal Co	over	FACU species 0			
1. Holcus lanatus	70	Yes	S	FAC	· -		x = 0 (A) 285	
2. Little spades weedy	25	Yes		FAC	Column Totals: 95		(A) <u>285</u>	(B)
3.					Prevalence Inde	x = B/A	= 3	_
4					Hydrophytic Vegetat	ion Indi	cators:	
5					☐ Rapid Test for Hyd	drophytic	: Vegetation	
6					■ Dominance Test is	s >50%		
7					▼ Prevalence Index			
8					☐ Morphological Ada		ն¹ (Provide supր a separate she	
9					☐ Wetland Non-Vase		•	et)
10					☐ Problematic Hydro			olain)
11					¹Indicators of hydric so			'
Woody Vine Stratum (Plot size: 30 ft)	95	= To	otal Co	over	be present, unless dis			
1					Hydrophytic			
2	0	= To	tal Co		Vegetation Present? Y	es 🗵 🗆	No □	
% Bare Ground in Herb Stratum 5								
Remarks: Hydrophytic vegetation criterion observable	ved through	gh do	min	ance tes	t indicator; unknowr	n herba	ceous plant	with
small lanceolate leaves: assumed FA		-			•		·	

Sampling Point: DP-37

Depth	Matrix Color (moist)	%	— Colo	r (moist)	dox Featu		1.002	Toytu		Domarka
(<u>inches)</u> 0 - 15	10YR 3/2	100		r (moist)	%	Type ¹	Loc ²	SaL		<u>Remarks</u>
			10	/D E/C						
15 - 24	2.5Y 5/2	93	_	/R 5/6	$-\frac{7}{-}$	CS	PL	LoS		
24 - 30	10Y 5/1	95	7.5	YR 4/6	5	CS	M	San	<u></u>	Coarse
-										
-										
			_ —							
	oncentration, D=D Indicators: (App						ed Sand G			ation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils³
-		icable to				oteu.)				•
] Histosol	oipedon (A2)			Sandy Redox Stripped Matr				_		Muck (A10) Parent Material (TF2)
Black Hi				oamy Mucky	. ,	F1) (excen	MIRA1)	_		Shallow Dark Surface (TF12)
	en Sulfide (A4)			oamy Gleye			t in Live i	Ė	-	(Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Depleted Mat		-/		_	,	(Exprain in resinance)
	ark Surface (A12)	` '/		Redox Dark S		3)		3	ndicato	rs of hydrophytic vegetation and
_	lucky Mineral (S1)			Depleted Dark	•	•				nd hydrology must be present,
	Gleyed Matrix (S4)			Redox Depres	ssions (F8	3)			unless	disturbed or problematic.
	Layer (if present)	:								
Type:										
Depth (in	oboo):							Hydr	ic Soil	Present? Yes ☐ No ⊠
emarks:	soils indicators							Tiyul		
emarks: o hydric :	soils indicators	observ						Tiyui		
emarks: hydric s TDROLO Tetland Hy	soils indicators GY drology Indicator	observ	ed.	eck all that an	nnlv)			Tiyui		
emarks: D hydric : DROLO Tetland Hyrimary Indi	soils indicators OGY drology Indicator cators (minimum o	observ	ed.			aves (B9) (s	excent MI I		Secon	dary Indicators (2 or more require
emarks: Dhydric : DROLO Total distribution of the stand Hy Timary Indi Surface	oGY drology Indicator cators (minimum o	observ	ed.	☐ Water-St	tained Lea		except MLI		Secon	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA <i>'</i>
DROLO Ottorio	or soils indicators OGY Ordrology Indicator Cators (minimum of the cators (Minimum of the cators) Water (A1) After Table (A2)	observ	ed. uired; che	☐ Water-St	tained Lea		except MLI		Secon	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA ' 4A, and 4B)
DROLO etland Hy imary Indi Surface High Wa Saturation	or soils indicators or o	observ	ed. uired; che	☐ Water-St 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	lB)	except MLI		Secon Wa	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 2 4A, and 4B) ainage Patterns (B10)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M	oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)	observ	ed. uired; che	☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	tained Lea 4A, and 4 st (B11) Invertebrat	tes (B13)	xcept MLI		Secon Wa	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 4 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
PROLO	or (A1) ater Table (A2) bon (A3) larks (B1) at Deposits (B2)	observ	ed. uired; che	☐ Water-Si 1, 2, ☐ Salt Crus ☐ Aquatic I ☐ Hydroge	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (tes (B13) Odor (C1)		RA	Secon Wa Dr	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA ' 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery
Primary Indi Saturatio Water M Sedimer Drift Dep	or (A3) larks (B1) nt Deposits (B2) posits (B3)	observ	ed. uired; che	☐ Water-Si 1, 2, ☐ Salt Crus ☐ Aquatic I ☐ Hydroge ☐ Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (Rhizosph	tes (B13) Odor (C1) neres along	Living Roc	RA	Secon Wa Dr Dr Sa Gee	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2)
TDROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	observ	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (Rhizosph e of Reduc	tes (B13) Odor (C1) heres along ced Iron (C	Living Roo 4)	RA ots (C3)	Secon W: Dr Dr Sa Ge Sh	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 24A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3)
TDROLO TOROLO TOROLO	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	observ	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille	Living Roc 4) d Soils (C6	RA ots (C3)	Secon Wa Dr Dr Ge	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	or cators (minimum or cators (mi	observers:	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roc 4) d Soils (C6	RA ots (C3)	Secon Wai Dr Dr Sa Ge Sh FA	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 44A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or Crust (B4) cosits (B5) soils indicators reactors (minimum or cators (B1) or (A3) larks (B1) or (B2) cosits (B3) at or Crust (B4) cosits (B5) soil Cracks (B6) on Visible on Aeria	observers: f one requal	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roc 4) d Soils (C6	RA ots (C3)	Secon Wai Dr Dr Sa Ge Sh FA	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
TDROLO Tetland Hy Timary Indi Tolor	or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Conca	observers: f one requal	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roc 4) d Soils (C6	RA ots (C3)	Secon Wai Dr Dr Sa Ge Sh FA	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 44A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
TDROLO etland Hyrimary Indi Surface High Wa Sedimer Orift Dep Algal Ma Iron Dep Surface Inundation Sparsely eld Obser	pGY drology Indicators water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations:	observers: f one required in the servers of the se	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizospher In Reduction Reduction Reduction Reduction Report Stresse xplain in Reduction Reductio	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roc 4) d Soils (C6	RA ots (C3)	Secon Wai Dr Dr Sa Ge Sh FA	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 44A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
marks: Dhydric so hydric	pGY drology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar crustions: ter Present?	observers: f one require Surface Yes	ed. uired; che (B7) ce (B8)	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Green Reduct In	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roc 4) d Soils (C6	RA ots (C3)	Secon Wai Dr Dr Sa Ge Sh FA	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 44A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
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emarks: D hydric : D surface High Wa Sedimer D hydric :	pGY drology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar vations: ter Present? Present? pillary fringe)	observe	ed. uired; che ce (B8) No 🖾 No 🖂	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Reduct In Reduc	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roc 4) d Soils (C6 1) (LRR A	RA ots (C3) s)	Secon Waite Secon Secon Secon Free Secon Free Secon Free Secon Free Gee Free Free Gee Free Gee Free Gee G	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA 44A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
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rDROLO retland Hy rimary Indi Surface High Wa Sedimer Orift Dep Algal Ma Iron Dep Inundati Sparsely retland Obser urface Water Table atturation Pencludes ca	pGY drology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar vations: ter Present? Present? pillary fringe)	observe	ed. uired; che ce (B8) No 🖾 No 🖂	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Reduct In Reduc	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roc 4) d Soils (C6 1) (LRR A	RA ots (C3) s)	Secon Waite Secon Secon Secon Free Secon Free Secon Free Secon Free Gee Free Free Gee Free Gee Free Gee G	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA of AA, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Property of the control of the contr	soils indicators orgy ordrology Indicator cators (minimum orgonicators (minimum orgonicators) water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Concators ter Present? Present? Present? pillary fringe) corded Data (streat	observers: f one requires Surface Yes Yes Yes Yes Am gauge	ed. uired; che (B7) ce (B8) No No No No No No No No No No	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Reduct	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roc 4) d Soils (C6 1) (LRR A	RA ots (C3) S)) land Hyd if availa	Secon Wi Dr Dr Sa Ge Sh FA Free	dary Indicators (2 or more require ater-Stained Leaves (B9) (MLRA of AA, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/C	ounty:	Marysvi	ille / Snohomish	Samp	oling Date: 03/	14/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Samp	oling Point: DF	o-39
Investigator(s): Kyla Caddey, Emily Swaim			S	ection, To	wnship, Range: 28, 3	1, 05N		
Landform (hillslope, terrace, etc.): Valley Floor		Loca	ıl relief ((concave,	convex, none): None		Slope ('	%): <u>0</u>
Subregion (LRR): A-2	_ Lat: _48	.1413	345		Long: -122.16824	1084	Datum: \(\frac{1}{2}\)	NGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI classifi			
Are climatic / hydrologic conditions on the site typical for this				_	no, explain in Remarks			
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed	1?	Are "No	rmal Circumstances" pi	resent?	Yes ⊠ No [_
Are Vegetation, Soil, or Hydrology natu				(If neede	ed, explain any answers	in Rema	arks.)	
SUMMARY OF FINDINGS – Attach site map				point lo	ocations, transect	s, impo	ortant featu	res, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				Sampled				
Wetland Hydrology Present? Yes ☐ No 🗵			within	a Wetlan	d? Yes □	No 📙		
Remarks: Not all three wetland criteria observed, only h groundwater monitoring study.	ydrophytic	veget	ation p	resent; tu	rf field. Non-wetland	hydrolog	y confirmed by	у
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover			ndicator	Dominance Test wor			
1					Number of Dominant That Are OBL, FACW		1	(A)
2.								_ ()
3					Total Number of Dom Species Across All St		1	(B)
4					Percent of Dominant S	Snecies		
Capling/Chrub Stratum (Diet size: 45 ft)	0	= To	otal Cov	/er	That Are OBL, FACW		100%	_ (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft) 1				ŀ	Prevalence Index wo	orksheet:	,	
2.					Total % Cover of:			:
3.							x 1 = 0	<u> </u>
4.					FACW species 0			
5							x 3 = <u>300</u>	
	0	= To	otal Cov	/er	FACU species 0			
Herb Stratum (Plot size: 5 ft) 1. planted grass	100	Yes	s I	FAC				—
2		10.	<u> </u>		Column Totals: 100	((A) <u>300</u>	(B)
3.					Prevalence Inde	x = B/A :	= 3	_
4					Hydrophytic Vegetat	ion Indic	ators:	
5					☐ Rapid Test for Hy	drophytic	Vegetation	
6					■ Dominance Test is	s >50%		
7					▼ Prevalence Index	is ≤3.0¹		
8					☐ Morphological Ada		¹ (Provide supp a separate she	
9					□ Wetland Non-Vas		•	et)
10	-				☐ Problematic Hydro			olain)
11	100				¹ Indicators of hydric s			,
Woody Vine Stratum (Plot size: 30 ft)	100	= To	otal Cov	/er	be present, unless dis			
1					Hydrophytic			
2					Vegetation	,	N - 🗇	
% Bare Ground in Herb Stratum 0	0	= To	otal Cov	/er	Present? Y	'es ⊠ N	40 L	
		ماء ا		noc 4	indicate male start			
Remarks: Hydrophytic vegetation criterion observation	vea mrou	gri ac	ווווווווווווווווווווווווווווווווווווווו	nce test	mulcator, planted	yıass		

Depth	cription: (Descril Matrix	(Red	dox Featu						
(inches)	Color (moist)	%_		r (moist)	%	Type ¹	Loc ²	Textu		Remarks	
0 - 16	10YR 2/2	98		YR 3/4	2	<u>C</u>	m	SaL			
16 - 26	5Y 4/3	99	10`	YR 5/6	<u> </u>	CS	m	San	<u>d</u>	coarse	
26 - 30	5Y 3/2	95	10`	YR 5/6	5	cs	m	San	d	coarse	
	•										
								-			
								-			
	Concentration, D=D						ed Sand G			ation: PL=Pore Lining, M=Matrix.	
_	Indicators: (App	ilcable to				otea.)				rs for Problematic Hydric Soils	-
☐ Histosol	(A1) pipedon (A2)			Sandy Redox Stripped Matri						Muck (A10) Parent Material (TF2)	
	istic (A3)			_oamy Mucky	` '	F1) (excep	t MLRA 1)			Shallow Dark Surface (TF12)	
	en Sulfide (A4)			_oamy Gleyed	•	, ,	·	F	-	r (Explain in Remarks)	
	d Below Dark Surfa	ace (A11)		Depleted Mati		,		_		,	
☐ Thick Da	ark Surface (A12)			Redox Dark S	Surface (F6	6)		3	ndicato	rs of hydrophytic vegetation and	
-	Mucky Mineral (S1))		Depleted Dark		. ,				nd hydrology must be present,	
	Gleyed Matrix (S4)			Redox Depres	ssions (F8	5)		1	unles	s disturbed or problematic.	
	Layer (if present)										
Type:	achoe).										
Берит (ш	nches):							Hydr	ic Soil	Present? Yes ☐ No ⊠	
Remarks: No hydric	soils indicators	observ	ed.								
No hydric	OGY		ed.								
No hydric HYDROLO Wetland Hy	OGY rdrology Indicato	rs:		ack all that an	oply)				Secon	ndary Indicators (2 or more require	d)
No hydric HYDROLO Wetland Hy Primary Indi	OGY rdrology Indicator icators (minimum c	rs:				ayos (RO) (oveent MIL			ndary Indicators (2 or more require	
No hydric HYDROLC Wetland Hy Primary Indi Surface	OGY rdrology Indicator icators (minimum c Water (A1)	rs:		☐ Water-St	tained Lea		except MLI	RA		ater-Stained Leaves (B9) (MLRA	
HYDROLO Wetland Hy Primary Indi Surface High Wa	OGY rdrology Indicator icators (minimum o Water (A1) ater Table (A2)	rs:		☐ Water-St	tained Lea 4A , and 4		except MLI	RA	□ w	ater-Stained Leaves (B9) (MLRA 4A, and 4B)	
HYDROLO Wetland Hy Primary Indi Surface High Wa	OGY rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3)	rs:		☐ Water-St 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	lB)	except MLI	RA	□ W	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10)	
No hydric HYDROLO Wetland Hy Primary Indi Surface High Water M	OGY rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)	rs:		☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	tained Lea 4A, and 4 st (B11) nvertebrat	tes (B13)	except MLI	RA	□ W	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)	1, 2,
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimer	order (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2)	rs:		Water-St 1, 2, Salt Crus Aquatic I Hydroge	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (tes (B13) Odor (C1)				ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery	1, 2,
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Dep	order of the control	rs:		Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized	tained Lea 4A, and 4 st (B11) nvertebrate n Sulfide (Rhizosph	tes (B13) Odor (C1) neres along	Living Roc		☐ W ☐ Di ☐ Di ☐ Si ☐ Go	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery eomorphic Position (D2)	1, 2,
No hydric HYDROLO Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma	order variable (A2) on (A3) farks (B1) on (Deposits (B2) on (Cast)	rs:		Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A , and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduc	tes (B13) Odor (C1)	Living Roo 4)	ots (C3)	W Di Di Sa Gi Si	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3)	1, 2,
No hydric HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep	order of the control	rs:		Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reductor	tes (B13) Odor (C1) heres along ced Iron (C	Living Roc 4) ed Soils (C6	ots (C3)	☐ W ☐ Di ☐ Di ☐ Si ☐ Gi ☐ Si ☐ Fi	ater-Stained Leaves (B9) (MLRA 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery eomorphic Position (D2)	1, 2,
No hydric HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Vater M Sedimer Drift Dep Algal Ma Iron Dep Surface	order variable (A2) on (A3) variable (B2) posits (B3) at or Crust (B4) posits (B5)	rs: of one req	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reductor	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille	Living Roc 4) ed Soils (C6	ots (C3)	Di Di Si Si F#	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5)	1, 2,
No hydric IYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	order (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	rs: of one req	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille	Living Roc 4) ed Soils (C6	ots (C3)	Di Di Si Si F#	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)	1, 2,
No hydric HYDROLO Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	Mater (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	rs: of one req	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille	Living Roc 4) ed Soils (C6	ots (C3)	Di Di Si Si F#	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)	1, 2,
No hydric HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	Mater (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	rs: of one req	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted o Other (E.	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in Reduct es):	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille	Living Roc 4) ed Soils (C6	ots (C3)	Di Di Si Si F#	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)	1, 2,
No hydric HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	order of the control	rs: of one requal limagery	uired; che (B7) ce (B8)	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E)	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in R es):	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille	Living Roc 4) ed Soils (C6	ots (C3)	Di Di Si Si F#	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)	1, 2,
No hydric and hydric and hydric and hydric and hydrid a	order of the control	rs: of one requal Imagery ave Surface Yes □	uired; che (B7) ce (B8) No ⊠	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted o Other (E.	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in R es):	tes (B13) Odor (C1) heres along ced Iron (C- ction in Tille	Living Roo 4) d Soils (C6 01) (LRR A	ots (C3)	W Di Si Si Si Si Si Si Si	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)	1, 2,
No hydric HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation Fedincludes car	order of the control	rs: of one required in the second in the s	uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E.	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in R es):	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roc 4) ed Soils (C6 01) (LRR A	ots (C3)	W Di Si Si Si Si Si F / Fr Fr Fr Charles C	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)	1, 2,
No hydric and hydric and hydrologous and hydro	order of the control	rs: of one required in the second in the s	uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E.	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in R es):	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roc 4) ed Soils (C6 01) (LRR A	ots (C3)	W Di Si Si Si Si Si F / Fr Fr Fr Charles C	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)	1, 2,
No hydric and hydric and hydrocolor wetland Hy Primary India Surface High Water Marcolor Sedimen Iron Department Surface Inundation Sparsely Field Observation Foundation Saturation Foundation Sediment Saturation Foundation Foundati	order of the control	rs: of one required one requi	uired; che (B7) ce (B8) No 🖾 No 🗆 no itor	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in R es):	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roc 4) ed Soils (C6 01) (LRR A	ots (C3) i) land Hyo	DI DI SI	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)	(C9)
Wetland Hy Primary Indi Surface High Wa Saturation Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca Describe Re	order of the control	rs: of one required in the second in the s	uired; che (B7) ce (B8) No \(\square\) No \(\square\) No \(\square\) , monitor observ	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse xplain in R es):	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille ad Plants (C Remarks) previous in	Living Roc 4) ed Soils (C6 01) (LRR A Weti spections),	ots (C3) S) land Hyo if availa	DI D	ater-Stained Leaves (B9) (MLRA 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery recomorphic Position (D2) rallow Aquitard (D3) rac-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)	(C9)

Project/Site: 1655.0001 / Schoultes Property	(City/Coun	_{ty:} Marysv	rille / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-4
Investigator(s): Emily Swaim, Jon Pickett, Richard P					
Landform (hillslope, terrace, etc.): Valley Floor		Local rel			Slope (%): 0
Subregion (LRR): A-2	_ Lat: <u>48.</u> ′	140326		Long: -122.162408	66 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classification	tion: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes 🛭	No ☐ (I	f no, explain in Remarks.)	
Are Vegetation $\underline{\hspace{1.5cm} \hspace{1.5cm} $	ificantly dist	turbed?	Are "No	ormal Circumstances" pres	ent? Yes 🗵 No 🗌
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If neede	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplii	ng point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☐ No 🗵			he Sampled		_
Wetland Hydrology Present? Yes ☒ No ☐		wit	hin a Wetlar	nd? Yes ☒ No	ɔ ∐
Remarks: Hydrophytic vegetation & wetland hydrology present:	disked but to	vnical: wetl	and hydrology	confirmed by groundwater m	nonitoring study. The sampled area
is considered to be within a wetland due to at least 22					
VEGETATION – Use scientific names of plant	ts.				
T 0 (D			t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			Number of Dominant Sp That Are OBL, FACW, o	
2				Total Number of Domina	
3			<u> </u>	Species Across All Strate	a: <u>1</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	^	= Total	Cover	Percent of Dominant Spo That Are OBL, FACW, o	
1				Prevalence Index work	sheet:
2				Total % Cover of:	Multiply by:
3					x 1 = <u>0</u>
4				-	x 2 = <u>0</u>
5					x 3 = <u>180</u>
Harb Christian (District 5 ft)	0	= Total	Cover		x 4 = 0
Herb Stratum (Plot size: 5 ft) 1. Holcus lanatus	60	Yes	FAC	UPL species 0	x 5 = 0
2				Column Totals: 60	(A) <u>180</u> (B)
3				Prevalence Index	= B/A = <u>3</u>
4				Hydrophytic Vegetation	n Indicators:
5.				☐ Rapid Test for Hydro	phytic Vegetation
6				■ Dominance Test is >	·50%
7				▼ Prevalence Index is:	≤3.0 ¹
8			<u> </u>		tations¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	ar Plants ¹
10			·	☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
11	60	= Total (Cover		and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft) 1				be present, unless distur	bed or problematic.
2			<u> </u>	Hydrophytic Vegetation	
	0	= Total	Cover		No □
% Bare Ground in Herb Stratum 40					
Remarks: Hydrophytic vegetation criterion observ	ved throuç	gh domi	nance test	t indicator.	

Remarks
parse
r PL=Pore Lining, M=Matrix. r Problematic Hydric Soils ³ :
sk (A10)
nt Material (TF2)
llow Dark Surface (TF12)
plain in Remarks)
,
hydrophytic vegetation and
drology must be present,
turbed or problematic.
sent? Yes □ No ⊠
Indicators (2 or more required)
Indicators (2 or more required) Stained Leaves (B9) (MLRA 1. 2
Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B)
Stained Leaves (B9) (MLRA 1, 2 and 4B)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (CS
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Csorphic Position (D2)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Csorphic Position (D2) v Aquitard (D3)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Csorphic Position (D2)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Cs prphic Position (D2) v Aquitard (D3) eutral Test (D5)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (C9 prphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (C9 prphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (C9 orphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (C9 orphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (C9 orphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Cs orphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) Heave Hummocks (D7)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Cs orphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) Heave Hummocks (D7)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Cs orphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) Heave Hummocks (D7)
Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) tion Visible on Aerial Imagery (Corphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/C	County	. Marysv	ille / Snohomi	ish Sa	ampling Date: 03/	14/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Sa	ampling Point: DF	2-40
Investigator(s): Emily Swaim, Kyla Caddey			;	Section, To	wnship, Range:	28, 31, 05	δN	
Landform (hillslope, terrace, etc.): Valley Floor		Loca	al relie	f (concave,	convex, none): _	None	Slope (%): <u>0</u>
Subregion (LRR): A-2	_ Lat: 48	.141	371		Long: -122.	16972773	Datum: <u>\</u>	NGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI	classification	n: None	
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	nificantly dist	turbe	d?	Are "No	ormal Circumstan	ices" present	t? Yes ☒ No ☐]
Are Vegetation, Soil, or Hydrology natu	rally probler	natic1	?	(If neede	ed, explain any a	nswers in Re	emarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sam	pling	g point lo	ocations, trai	nsects, im	nportant featu	res, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				e Sampled				
Wetland Hydrology Present? Yes ☐ No ☒			withi	n a Wetlan	id? Y	es ☐ No 🗵	<u> </u>	
Remarks: Not all three wetland criteria observed, only h groundwater monitoring study.	nydrophytic	vege	tation	present; tu	urf field. Non-we	etland hydro	logy confirmed by	у
VEGETATION – Use scientific names of plan	ts.							
Topic Christian (Diet circu 20 ft)	Absolute				Dominance Te	est workshe	et:	
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dor That Are OBL,			_ (A)
2					Total Number of	of Dominant		
3					Species Across		1	_ (B)
4	^				Percent of Don	ninant Specie	es	
Sapling/Shrub Stratum (Plot size: 15 ft)	0	= To	otal Co	over	That Are OBL,			_ (A/B)
1					Prevalence Inc	dex worksh	eet:	
2.					Total % Co	over of:	Multiply by:	<u>:</u>
3.					OBL species	0	x 1 = 0	
4					FACW species	0	x 2 = <u>0</u>	
5					FAC species	100	x 3 = <u>300</u>	
	0	= To	otal Co	over	FACU species	0	x 4 = <u>0</u>	
Herb Stratum (Plot size: <u>5 ft</u>)	400	٧a	_	EAC	UPL species	0	x 5 = <u>0</u>	
1. planted grass	100				Column Totals:	100	(A) <u>300</u>	(B)
2					Prevalen	ce Index = E	3/A = 3	
3		-			Hydrophytic V			
4						_	ytic Vegetation	
5 6					-	e Test is >50°	-	
					✓ Prevalence			
7 8						ical Adaptatio	ons ¹ (Provide supp	orting
9							on a separate she	
10					☐ Wetland No	on-Vascular l	Plants ¹	
11							ic Vegetation¹ (Exp	•
Woody Vine Stratum (Plot size: 30 ft)	100	= To	otal Co	over			d wetland hydrolog d or problematic.	y must
1					111 1			
2					Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0	0	= To	otal Co	over	Present?	Yes 🗵	No □	
Remarks:					<u> </u>			
Hydrophytic vegetation criterion observation assumed to be facultative for scoring p								ield

Depth (inches)	Matrix	%	Cala	r (moist)	dox Featur		Loc ²	Toster	~	Domorko	
(inches) 0 - 9	Color (moist) 10YR 3/2	100	<u>Cold</u>	r (moist)	%	Type ¹	LOC	SaLo		<u>Remarks</u>	
9 - 23	5Y 5/2	95	7.5	YR 4/6	5	cs	m	Sand		coarse	
23 - 30	5Y 3/1	99		YR 5/4	$-\frac{3}{1}$	- cs	<u>m</u>	San			
23 - 30	31 3/1	_ =====================================	_ 10	111 3/4	'_			San	<u></u>	coarse	
	Concentration, D=De						ed Sand Gr			ation: PL=Pore Lining, M=Ma	
lydric Soil	Indicators: (Appl	icable to	all LRR	s, unless oth	erwise no	oted.)		In	dicato	s for Problematic Hydric So	ils³:
Histosol	` '			Sandy Redox						Muck (A10)	
	pipedon (A2)			Stripped Matri						Parent Material (TF2)	
	istic (A3)			_oamy Mucky	•		MLRA 1)	<u> </u>	-	Shallow Dark Surface (TF12)	
	en Sulfide (A4)	(011)		_oamy Gleyed		2)		L] Othe	(Explain in Remarks)	
•	d Below Dark Surfa ark Surface (A12)	ice (ATT)		Depleted Matr		• \		31.	adiaata	rs of hydrophytic vegetation ar	
	Mucky Mineral (S1)			Redox Dark S Depleted Dark	•	•		-11		is of hydrophytic vegetation and hydrology must be present,	iu
	Gleyed Matrix (S4)			Redox Depres						d flydrology flidst be present, sidisturbed or problematic.	
•	Layer (if present):	<u> </u>		todox Boproc	0 1) 0110100	/			unico	distance of problematic.	
Type:											
	nches):			-				Hydr	ic Sail	Present? Yes ☐ No 🗵	
emarks:	/							пуш	ic 30ii	Present? Tes \(\) No \(\)	
/DD4: -											
YDROLO	GY										
Vetland Hy	drology Indicator										
Vetland Hy Primary Indi	drology Indicators		uired; che							dary Indicators (2 or more req	
Primary Indi	rdrology Indicators icators (minimum of Water (A1)		uired; che	☐ Water-St	ained Lea		xcept MLR	 RA		ater-Stained Leaves (B9) (MLF	
Vetland Hy Primary Indi ☐ Surface ☐ High Wa	rdrology Indicators icators (minimum of Water (A1) ater Table (A2)		uired; che	☐ Water-St	ained Lea		xcept MLR	 RA	☐ Wa	ater-Stained Leaves (B9) (MLF	
Vetland Hy Primary Indi Surface High Wa Saturatio	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3)		uired; che	☐ Water-St 1, 2,	ained Lea 4A, and 4 st (B11)	В)	xcept MLR	RA	□ Wa	ater-Stained Leaves (B9) (MLF 4A, and 4B) ainage Patterns (B10)	
Vetland Hy Primary Indi Surface High Wa Saturation	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1)		uired; che	☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	cained Lea 4A, and 4 st (B11) nvertebrat	B) es (B13)	xcept MLR	RA	☐ Wa	ater-Stained Leaves (B9) (MLF 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)	RA 1, 2,
Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)		uired; che	Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger	tained Lea 4A, and 4 st (B11) nvertebrate n Sulfide (es (B13) Odor (C1)			□ Wa□ Dra□ Dra□ Sa	ater-Stained Leaves (B9) (MLF 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imag	RA 1, 2,
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3)		uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroger Oxidized	tained Lea 4A, and 4 st (B11) nvertebrate n Sulfide (Rhizosph	es (B13) Odor (C1) eres along	Living Root		☐ Wa	ater-Stained Leaves (B9) (MLF 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Image	RA 1, 2,
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized Presence	cained Lea 4A, and 4 et (B11) nvertebrat n Sulfide (Rhizosph e of Reduc	es (B13) Odor (C1) eres along ded Iron (C	Living Root	ts (C3)	☐ Wa	Ater-Stained Leaves (B9) (MLF 4A, and 4B) Ainage Patterns (B10) Ay-Season Water Table (C2) Aturation Visible on Aerial Image Acomorphic Position (D2) Allow Aquitard (D3)	RA 1, 2,
Primary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydrogel Oxidized Presence Recent II	rained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reductor	es (B13) Odor (C1) eres along sed Iron (Cotion in Tille	Living Root 1) d Soils (C6	ts (C3)	☐ Wa	ater-Stained Leaves (B9) (MLF 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imag comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	RA 1, 2,
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Project/Site: 1655.0001 / Schoultes Property		City/C	county:	Marysvi	ille / Snohomis	sh San	npling Date: 03/1	4/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	San	npling Point: DP	-41
Investigator(s): Emily Swaim, Kyla Caddey			s	ection, To	wnship, Range: <u>2</u>	28, 31, 05N	N	
Landform (hillslope, terrace, etc.): Valley Floor		Loca	al relief	(concave,	convex, none): 1	None	Slope (%	6): <u>0</u>
Subregion (LRR): A-2	_ Lat: 48	.141	401		Long: -122.1	7091912	Datum: V	VGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI c	lassification:	None	
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	nificantly dist	turbed	d?	Are "No	rmal Circumstand	es" present?	Yes ☒ No ☐	J
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	?	(If neede	ed, explain any an	swers in Ren	narks.)	
SUMMARY OF FINDINGS - Attach site map	showing	sam	pling	point lo	ocations, tran	sects, imp	oortant featu	res, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					_			
Hydric Soil Present? Yes ☐ No 🗵				Sampled		- 🗆 N- 🖾		
Wetland Hydrology Present? Yes ☐ No ☒			withir	n a Wetlan	a ? Ye	s No 🗵		
Remarks: Not all three wetland criteria observed, only h groundwater monitoring study.	ydrophytic	veget	tation _I	present; tu	rf field. Non-wet	land hydrolo	ogy confirmed by	r
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft)	Absolute % Cover				Dominance Tes Number of Dom			
1					That Are OBL, F			_ (A)
2					Total Number of		4	(=)
3					Species Across	All Strata:	1	_ (B)
	^	= To	otal Co	ver	Percent of Domi That Are OBL, F			_ (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft) 1				ŀ	Prevalence Ind	ex workshee	et:	
2.						ver of:		
3.					OBL species	0	x 1 = 0	
4					FACW species	0	x 2 = 0	
5					FAC species		x 3 = <u>300</u>	
	0	= To	otal Co	ver	FACU species		x 4 = 0	
Herb Stratum (Plot size: 5 ft) 1. Planted grass	100	٧o	•	EAC	UPL species		x 5 = <u>0</u>	
					Column Totals:	100	(A) <u>300</u>	(B)
2 3					Prevalence	e Index = B//	A = 3	
4					Hydrophytic Ve			
5						_	ic Vegetation	
6						Test is >50%	-	
7.					× Prevalence	Index is ≤3.0	1	
8.							ns¹ (Provide supp	
9					data in F		n a separate shee	H)
10					_		เสกเร Vegetation¹ (Exp	lain)
11	400						wetland hydrolog	•
Woody Vine Stratum (Plot size: 30 ft)	100	= To	otal Co	ver	be present, unle			
1					Hydrophytic			
2	0				Vegetation Present?	Yes ⊠	No 🗆	
% Bare Ground in Herb Stratum 0	-	= 10	otal Co	ver	rieseiil?	res 🔼	IAO 🗀	
Remarks: Hydrophytic vegetation criterion observ	ved through	gh do	omina	nce test	indicator; unio	dentified ar	ass species	
assumed to be facultative for scoring p								eld

Depth	Matrix Color (moist)	%		Ree	dox Featu		Loc ²	Touture		Domarka	
(inches) 0 - 16	10YR 2/2	98	_	YR 4/4	2	<u>Type¹</u> CS	LOC	SaLo	<u> </u>	<u>Remarks</u>	
	· -			11\4/4						Caaraa aanad	
16 - 27	10YR 3/2	100						Sand		Coarse sand	
27 - 30	5Y 5/2	95	7.5	YR 5/6	5	CS	M, PL	SaLo		Very sandy loam	
	Concentration, D=D						ed Sand G			ation: PL=Pore Lining, M=M	
] Histoso		iicabie to		Sandy Redox		oteu.,				Muck (A10)	ons .
	Epipedon (A2)			Stripped Matr						Parent Material (TF2)	
	listic (A3)			_oamy Mucky	٠, ,	F1) (excep	t MLRA 1)			Shallow Dark Surface (TF12)
	en Sulfide (A4)			_oamy Gleye			,		-	(Explain in Remarks)	,
	ed Below Dark Surfa	ace (A11)		Depleted Mat		,		_		,	
Thick D	ark Surface (A12)			Redox Dark S	Surface (F6	3)		³ Inc	dicator	s of hydrophytic vegetation a	and
_	Mucky Mineral (S1)			Depleted Darl		. ,			wetlar	nd hydrology must be presen	t,
	Gleyed Matrix (S4)			Redox Depres	ssions (F8)			unless	disturbed or problematic.	
	Layer (if present)	:									
Type:				-							
Depth (ir	nches):							Hydric	Soil I	Present? Yes 🗌 No 🗵	
			ed.								
Vetland Hy	ydrology Indicator	's:		eck all that ap	oply)				Secon	dary Indicators (2 or more re	quired)
Vetland Hy	ydrology Indicator licators (minimum o	's:				ives (B9) (6	except MLF				
/etland Hy rimary Ind] Surface	ydrology Indicator licators (minimum o e Water (A1)	's:		☐ Water-St			except MLF			dary Indicators (2 or more re ater-Stained Leaves (B9) (MI 4A, and 4B)	
/etland Hy rimary Ind] Surface] High Wa	ydrology Indicator licators (minimum o	's:		☐ Water-St	tained Lea		except MLF		□ Wa	ater-Stained Leaves (B9) (MI 4A, and 4B)	
/etland Hy rimary Ind] Surface] High Wa] Saturati	ydrology Indicator dicators (minimum o water (A1) ater Table (A2) ion (A3)	's:		☐ Water-St 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	В)	except MLF	RA [□ Wa	ater-Stained Leaves (B9) (ML	
/etland Hyrimary Ind Surface High Wall Saturati	ydrology Indicator dicators (minimum o www.e. Water (A1) dater Table (A2)	's:		☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	tained Lea 4A, and 4 st (B11)	tes (B13)	except MLF	RA [□ Wa	ater-Stained Leaves (B9) (MI 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)	_RA 1, 2
rimary Ind Surface High Water N Water N Sedime	ydrology Indicator dicators (minimum o e Water (A1) ater Table (A2) ion (A3) Marks (B1)	's:		Water-Si 1, 2, Salt Crus Aquatic I Hydroge	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (tes (B13) Odor (C1)	except MLF	AS	☐ Wa	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10)	_RA 1, 2
rimary Ind Surface High Wai Saturati Water N Sedime Drift De	ydrology Indicator dicators (minimum of Water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	's:		Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (Rhizosph	tes (B13) Odor (C1)	Living Roo	AS	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Ge	ater-Stained Leaves (B9) (MI 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima	_RA 1, 2
rimary Ind Surface High Wa Saturati Water N Sedime Drift De	ydrology Indicator dicators (minimum of Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	's:		Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (Rhizosph e of Reduc	tes (B13) Odor (C1) teres along ced Iron (C	Living Roo	RA [☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Ge ☐ Sh	ater-Stained Leaves (B9) (MI 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2)	_RA 1, 2
Vetland Hyrimary Ind Surface High Wall Saturati Water Name Sedime Drift De Algal Malor	ydrology Indicator dicators (minimum of Water (A1) rater Table (A2) ion (A3) Warks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	's:		Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduction Reduction	tes (B13) Odor (C1) heres along ced Iron (C	Living Roo 4)	RA [☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Ge ☐ Sh ☐ FA	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) /-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3)	RA 1, 2
Vetland Hyrimary Ind Surface High Wall Saturati Water Name Drift De Algal Malgon De Surface	ydrology Indicator dicators (minimum of the Water (A1) rater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5)	rs: If one requ	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I I Rhizosph I Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (C tion in Tille d Plants (E	Living Roo 4) ed Soils (C6	RA [Dra Dra Sa Ge Sh Ra	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	RA 1, 2
Vetland Hyrimary Ind Surface High Wall Saturati Water Name Control Sedime Drift De Algal Mall Iron De Surface Inundat	ydrology Indicator dicators (minimum of e Water (A1) later Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6)	rs: If one requ	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Green Reduction Reduction Research	tes (B13) Odor (C1) neres along ced Iron (C tion in Tille d Plants (E	Living Roo 4) ed Soils (C6	RA [Dra Dra Sa Ge Sh Ra	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	RA 1, 2
/etland Hyrimary Ind Surface High Warder Male Sedime Drift De Algal Male Iron De Surface Inundat Sparsel	ydrology Indicator dicators (minimum of Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca	rs: If one requ	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Green Reduction Reduction Research	tes (B13) Odor (C1) neres along ced Iron (C tion in Tille d Plants (E	Living Roo 4) ed Soils (C6	RA [Dra Dra Sa Ge Sh Ra	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	RA 1, 2
Vetland Hyrimary Ind Surface High Wall Saturati Water Mall Sedime Drift De Algal Mall Iron De Surface Inundat Sparsel	ydrology Indicator dicators (minimum of Water (A1) fater Table (A2) fion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca	rs: If one requ	uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizospher In Reduction Reduction Reduction Reduction Report Stresse Explain in Reduction Reducti	tes (B13) Odor (C1) neres along ced Iron (C tion in Tille d Plants (E	Living Roo 4) ed Soils (C6	RA [Dra Dra Sa Ge Sh Ra	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	RA 1, 2
/etland Hyrimary Ind Surface High Wall Saturati Water Name Drift De Algal Mall Iron De Surface Inundat Sparsel ield Obse	ydrology Indicator dicators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) aposits (B3) lat or Crust (B4) aposits (B5) a Soil Cracks (B6) ation Visible on Aeria and Vegetated Conca	r s: If one required in the second in the	uired; che (B7) ce (B8)	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizospher In Reduction Reduction Reduction Reduction Report Stresse Explain in Reduction Reducti	tes (B13) Odor (C1) neres along ced Iron (C tion in Tille d Plants (E	Living Roo 4) ed Soils (C6	RA [Dra Dra Sa Ge Sh Ra	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	RA 1, 2
Primary Ind Primary Ind Surface High Water Mark Sedime Drift De Algal Mark Iron De Surface Inundat Sparsel Field Obse Surface Water Table Saturation Fancludes ca	ydrology Indicator dicators (minimum of Water (A1) later Table (A2) lion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca ervations: later Present? e Present? Present? apillary fringe)	rs: If one required in the second s	uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Green Reduct In	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (E Remarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [☐ Wa ☐ Dra ☐ Dn ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ FA	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR	RA 1, 2
Vetland Hyrimary Ind Surface High Wall Saturati Water No Sedime Drift De Algal Mo Iron De Surface Inundat Sparsel Gield Obse Surface Wall Water Table Saturation Folludes ca	ydrology Indicator dicators (minimum of Water (A1) later Table (A2) lion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca ervations: later Present? e Present? Present?	rs: If one required in the second s	uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Green Reduct In	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (E Remarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [☐ Wa ☐ Dra ☐ Dn ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ FA	ater-Stained Leaves (B9) (MI 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR ost-Heave Hummocks (D7)	RA 1, 2
Vetland Hyrimary Ind Surface High Wall Saturati Water Mall Sedime Drift De Algal Mall Iron De Surface Inundat Sparsel ield Obse wrface Wall Vater Table aturation Faciludes callescribe Re	ydrology Indicator dicators (minimum of Water (A1) later Table (A2) lion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca ervations: later Present? e Present? Present? apillary fringe)	rs: If one required in the second s	uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Green Reduct In	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (E Remarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [☐ Wa ☐ Dra ☐ Dn ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ FA	ater-Stained Leaves (B9) (MI 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR ost-Heave Hummocks (D7)	RA 1, 2
Vetland Hyrimary Ind Surface High Wa Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Inundat Sparsel Water Table Saturation Fedudes calescribe Re	ydrology Indicator dicators (minimum of e Water (A1) later Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca ervations: later Present? e Present? Present? apillary fringe) ecorded Data (streat	rs: If one required the second of the seco	uired; che (B7) ce (B8) No 🖾 No 🗆 no itor	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph In Rhizosp	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (C Remarks) previous in	Living Roo 4) ed Soils (C6 01) (LRR A) Wetl spections),	ts (C3) [Dra Dra Dra Sa Ge Sh FA Ra Fro	ater-Stained Leaves (B9) (ML 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR ost-Heave Hummocks (D7)	RA 1, 2
rimary Ind Surface High Wa Saturati Sedime Comment Surface Surface Comment Surface Sur	ydrology Indicator dicators (minimum of Water (A1) later Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca ervations: later Present? e Present? Present? apillary fringe) ecorded Data (streat	rs: If one required one requi	uired; che (B7) ce (B8) No \(\square\) No \(\square\) No \(\square\) , monitor observ	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch ing well, aeria	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Rhizosph Invertebrat In Sulfide (In Rhizosph Invertebrat In Sulfide (In Rhizosph In Reduct In Red	tes (B13) Odor (C1) heres along ced Iron (C stion in Tille d Plants (C Remarks) previous in	Living Roo 4) ad Soils (C6 01) (LRR A) Wetl spections),	ts (C3) [ts (C3) [] and Hydr if availab	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ Fac	ater-Stained Leaves (B9) (MI 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Ima omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR ost-Heave Hummocks (D7)	RA 1, 2 agery (C

Project/Site: 1655.0001 / Schoultes Property		City/Coun	_{ty:} Marysv	rille / Snohomish	Sampling Date: 03/14/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-42
				ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local rel	ef (concave,	, convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: 48.	1431390)5	Long: -122.1696161	5 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes 🛚	No □ (I	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly dist	turbed?	Are "No	ormal Circumstances" pres	ent? Yes 🗵 No 🗌
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplir	ng point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵					
Hydric Soil Present? Yes ☒ No ☐			he Sampled		
Wetland Hydrology Present? Yes ☐ No ☒		Wit	hin a Wetlar	nd? Yes ☐ No	o X
Remarks: Not all three wetland criteria observed, hydric	soil presen	ıt: flat fiel	d area (not i	nlanted grass) Non-wetla	and hydrology confirmed by
groundwater monitoring study.	oon presen	it, iiut iici	a area (not j	planted grassy, 1 ton wells	and hydrology commined by
VEGETATION – Use scientific names of plan	ts.				
Trac Stratum (Diet circ. 20 ft)			t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			Number of Dominant Sp That Are OBL, FACW, or	
2				Total Number of Domina	
3				Species Across All Strata	a: <u>2</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	^	= Total (Cover	Percent of Dominant Spe That Are OBL, FACW, or	
1				Prevalence Index work	sheet:
2.				Total % Cover of:	
3.					x 1 = 0
4				FACW species 0	x 2 = <u>0</u>
5			· <u> </u>	FAC species 80	x 3 = <u>240</u>
	0	= Total (Cover	· · · · · · · · · · · · · · · · · · ·	x 4 = <u>80</u>
Herb Stratum (Plot size: 5 ft) 1. Trifolium repens	5 0	Voo	EAC	UPL species 0	x 5 = <u>0</u>
Triolium repens Taraxacum officinale	50 20	Yes Yes	FACU	Column Totals: 100	(A) <u>320</u> (B)
3. unidentified grass spp.	15	No	FAC	Prevalence Index	= R/A = 3.2
4 Holcus lanatus	10	No	FAC	Hydrophytic Vegetation	
5 Cardamine oligosperma	5	No	FAC	☐ Rapid Test for Hydro	
6				☐ Dominance Test is >	· ·
7				☐ Prevalence Index is:	≤3.0 ¹
8					tations ¹ (Provide supporting
9.					or on a separate sheet)
10				☐ Wetland Non-Vascul	
11			· <u> </u>		nytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	100	= Total (Cover	be present, unless distur	and wetland hydrology must rbed or problematic.
1				Hydrophytic	
2			<u> </u>	Vegetation	
% Bare Ground in Herb Stratum 0	0	= Total (Cover	Present? Yes	□ No ⊠
Remarks:	h a a : !			<u> </u>	
No hydrophytic vegetation indicators o	bserved.				

Depth Mat				dox Featu		12	T t		Demonto	
(inches) Color (moist) 0 - 12 10YR 3/1			r (moist) YR 4/6	3	<u>Type</u> 1 CS	Loc ² m	SaL		<u>Remarks</u>	
0 - 12			4/2	$-\frac{3}{2}$	03		San		depletion and redox within	the matrix
12 - 24	93		4/2 YR 4/6	$-\frac{2}{7}$		<u>m</u>	San			lile Illallix
-					cs	<u>m</u>			coarse	
24 - 30 <u>5GY 4/1</u>	97	7.5	YR 4/6	3	CS	<u>m</u>	San	<u>a</u>	coarse	
Type: C=Concentration, D=	=Depletion,	RM=Red	uced Matrix, (CS=Cover	red or Coat	ted Sand G	rains.	² Loc	ation: PL=Pore Lining, M=N	latrix.
lydric Soil Indicators: (Ap	pplicable to	all LRR	s, unless oth	erwise no	oted.)		Ir	ndicato	rs for Problematic Hydric	Soils³:
Histosol (A1)			Sandy Redox						Muck (A10)	
Histic Epipedon (A2)			Stripped Matri	. ,					Parent Material (TF2)	
Black Histic (A3)			_oamy Mucky			t MLRA 1)	_	-	Shallow Dark Surface (TF12	2)
Hydrogen Sulfide (A4)	f (A 4 4)		oamy Gleyed	•	-2)		L] Other	r (Explain in Remarks)	
☑ Depleted Below Dark Su ☐ Thick Dark Surface (A12	, ,		Depleted Matr Redox Dark S	, ,	3)		31	ndicata	rs of hydrophytic vegetation	and
☐ Thick Dark Sunace (A12 ☐ Sandy Mucky Mineral (S	•		Redox Dark S Depleted Dark	•	,		-1		is of hydrophytic vegetation nd hydrology must be presei	
☐ Sandy Mucky Milleral (Sandy Gleyed Matrix (Sa			Redox Depres		. ,				s disturbed or problematic.	π,
Restrictive Layer (if prese	,	<u> </u>	todox Boproc	0 1) 0110100	,			unico	dictarbed of problematic.	
Type:										
Depth (inches):			-				Hydr	ic Sail	Present? Yes ⊠ No 🗆	7
Remarks:							iiyui	10 0011	Tresent: Tes 🖂 No 🗆	
ydric soil criterion obs	served thr	ough A	11 indicato	r.						
	served thr	ough A	11 indicato	r.						
YDROLOGY Vetland Hydrology Indicat	tors:									
YDROLOGY Vetland Hydrology Indicators (minimum	tors:		eck all that ap	yply)					dary Indicators (2 or more re	
YDROLOGY Vetland Hydrology Indicators (minimum Surface Water (A1)	tors:		eck all that ap □ Water-St	ply) ained Lea	. , ,	except MLF	RA		ater-Stained Leaves (B9) (M	
YDROLOGY Vetland Hydrology Indicate in the image in the	tors:		eck all that ap □ Water-St 1, 2,	ply) ained Lea 4A, and 4	. , ,	except MLF	RA.	☐ Wa	ater-Stained Leaves (B9) (M	
YDROLOGY Vetland Hydrology Indicator (minimum) Surface Water (A1) High Water Table (A2) Saturation (A3)	tors:		eck all that ap Water-St 1, 2,	ply) ained Lea 4A, and 4 st (B11)	В)	except MLI		☐ Wa	ater-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10)	
YDROLOGY Vetland Hydrology Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	tors:		eck all that ap Water-St 1, 2, Salt Crus Aquatic I	ply) ained Lea 4A, and 4 at (B11) nvertebrat	tes (B13)	except MLI		☐ Wa	ater-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)	LRA 1, 2,
YDROLOGY Vetland Hydrology Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	tors:		eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogel	ply) ained Lea 4A, and 4 at (B11) nvertebrat n Sulfide (tes (B13) Odor (C1)	·		□ Wa□ Draw□ Draw□ Sa	ater-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Im	LRA 1, 2,
YDROLOGY Vetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	tors:		eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized	ply) cained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph	tes (B13) Odor (C1) heres along	Living Roc		☐ Wa	ater-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Im comorphic Position (D2)	LRA 1, 2,
YDROLOGY Vetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	tors:		eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogel Oxidized Presence	ply) cained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph	tes (B13) Odor (C1) teres along ced Iron (C	, Living Roc 4)	ots (C3)	 □ Wa □ Dr □ Dr □ Sa □ Sh 	Ater-Stained Leaves (B9) (Mater-Stained Leaves (B9) (Material Park 4A, and 4B) Adams and 4B)	LRA 1, 2,
YDROLOGY Vetland Hydrology Indicators (minimum 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)	tors: n of one req		eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogel Oxidized Presence	ply) rained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduc	tes (B13) Odor (C1) heres along ced Iron (C	Living Roo 4) ed Soils (C6	ots (C3)	Dr. Dr. Sa Ge	ater-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Im comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	LRA 1, 2,
YDROLOGY Vetland Hydrology Indicators (minimum) 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)	tors: n of one req	uired; che	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized Presence Recent II	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) neres along ced Iron (C ction in Tille d Plants (E	, Living Roc 4)	ots (C3)		ater-Stained Leaves (B9) (M 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Im- comorphic Position (D2) allow Aquitard (D3) .C-Neutral Test (D5) iised Ant Mounds (D6) (LRF	LRA 1, 2,
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/DROLOGY /etland Hydrology Indicates rimary Indicators (minimum) 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 Ae Sparsely Vegetated Contield Observations: urface Water Present? //ater Table Present? aturation Present? includes capillary fringe) rescribe Recorded Data (st	ors: n of one required in	uired; che (B7) ce (B8) No \(\square\) No \(\square\) no \(\square\) observ	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydrogei Oxidized Presence Recent II Stunted o Other (E: Depth (inch Depth (inch Depth (inch	pply) pained Lea 4A, and 4 post (B11) provertebrate in Sulfide (Control Reduction Reduction Stresse explain in Research (B1) es): 18 es): 16 al photos, of monit	tes (B13) Odor (C1) heres along ced Iron (C tion in Tille d Plants (E Remarks) previous in	Living Roc 4) ed Soils (C6 01) (LRR A Weti	ots (C3) S) land Hydiralia if availa	□ Wa □ Dr. □ Dr. □ Sa □ Ge □ Sh □ FA □ Ra □ Fro	ater-Stained Leaves (B9) (Mater-Stained Leaves (B9) (Mater-Stained Leaves (B9) (Mater-Stained Leaves (B10) (P-Season Water Table (C2) (P-Season Water Table (C2) (P-Season Water Table (C2) (P-Season Water Table (C2) (D3) (P-Season Water (D3) (P-Season (D3) (P-Seaso	LRA 1, 2 agery (CS

Project/Site: 1655.0001 / Schoultes Property	(City/Co	ounty:	Marysv	rille / Snohomish	Sampling Date: 06/19/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Sampling Point: DP-43
					ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief	(concave,	convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: 48.	14106	6776	5	Long: -122.1632956	3 Datum: WGS 84
Soil Map Unit Name: Custer fine sandy loam					NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	r? Ye	s 🗷	No ☐ (It	f no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly disf	turbed'	?	Are "No	ormal Circumstances" pres	ent? Yes □ No 🗵
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?		(If neede	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	oling	point lo	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐						
Hydric Soil Present? Yes ☐ No 🗵				Sampled		
Wetland Hydrology Present? Yes ☐ No 🗵		'	withii	n a Wetlan	nd? Yes ☐ No) X
Remarks:						
Not all three wetland criteria obse	erved, or	ıly hy	ydro	phytic	vegetation present	; agriculture field
VEGETATION – Use scientific names of plan	ts.					
	Absolute				Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover	-			Number of Dominant Spo That Are OBL, FACW, or	
2					Total Number of Domina	
3					Species Across All Strata	a: <u>1</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0				Percent of Dominant Spe That Are OBL, FACW, or	
1					Prevalence Index work	sheet:
2.						Multiply by:
3.					OBL species	x 1 =
4					FACW species	x 2 =
5					FAC species	x 3 =
	0	= Tot	tal Co	ver		x 4 =
Herb Stratum (Plot size: <u>5 ft)</u> 1. Holcus lanatus	70	Yes	,	FΔC	-	x 5 =
Chamaenerion angustifolium	5	No		FACU	Column Totals:	(A) (B)
3	<u> </u>			17100	Prevalence Index	= B/A =
4					Hydrophytic Vegetation	
5					☐ Rapid Test for Hydro	
6.					■ Dominance Test is >	50%
7					☐ Prevalence Index is :	≤3.0 ¹
8						rations ¹ (Provide supporting or on a separate sheet)
9					☐ Wetland Non-Vascul	• /
10					☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
11	75					and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)			tal Co		be present, unless distur	bed or problematic.
1					Hydrophytic	
2	0		tal Ca	wor.	Vegetation Present? Yes	⊠ No □
% Bare Ground in Herb Stratum 25			ıaı C0	vei	. 1030111: 185	e HV []
Remarks: Hydrophytic vegetation criterion observ			mina	ance test	indicator	
Trydrophydd Yogolddolf officholf obser	roa anoa(gii ao			indicator.	

(inches)	Color (moist)	<u>%</u>	<u>Colo</u>	r (moist)	%	Type ¹	Loc ²	Textu			Remarks	<u>8</u>
0 - 14	10YR 3/2	100	/_					SaL				
14 - 18	5Y 5/3	80	7.5	YR 5/8	20	C, CS	M	San	<u>d</u>			
	_											
	oncontration D-Da	nolotion I	DM-Dad	uood Matrix (ad or Coat	ad Sand C	roino	21.00	otion: DI	-Doro Linin	a M-Motriy
	oncentration, D=De Indicators: (Appl						ed Sand G					g, M=Matrix. Iydric Soils³:
Histosol				Sandy Redox		otou.,				Muck (A1		iyano cono i
	oipedon (A2)			Stripped Matri							aterial (TF2)	1
Black His				_oamy Mucky	. ,	-1) (except	MLRA 1)				Dark Surfac	
	n Sulfide (A4)			_oamy Gleyed			,	Ē	-		in Remarks	• •
	d Below Dark Surfa	ce (A11)		Depleted Matr				_				-
	ark Surface (A12)	ŕ		Redox Dark S		6)		3	ndicato	rs of hydro	ophytic veg	etation and
-	lucky Mineral (S1)			Depleted Dark		. ,					ogy must be	
	leyed Matrix (S4)			Redox Depres	sions (F8)			unles	s disturbe	d or probler	natic.
	Layer (if present):											
Type:												
								Llvds		D 40	Voc 🗆	No 🗵
emarks:	soils indicators							Hyur	16 5011	Present?	ies 🗌	NO E
Remarks: o hydric s	soils indicators	observe						Hyur	16 5011	Present?	ies 🗌	NO E
Remarks: lo hydric s YDROLO Vetland Hy	soils indicators GY drology Indicators	observe	ed.		ply)			Hyur				
Remarks: o hydric s YDROLO Vetland Hydrimary India	GY drology Indicators	observe	ed.	eck all that ap		ves (B9) (e	xcept MLF		Secon	ndary Indic	cators (2 or	more required)
demarks: o hydric s fDROLO Vetland Hydrimary India Surface N	GY drology Indicators cators (minimum of	observe	ed.	eck all that ap ☐ Water-St	ained Lea	, , ,	xcept MLF		Secon	ndary Indicater-Stain	cators (2 or ed Leaves (
emarks: o hydric s /DROLO /etland Hydrimary India Surface \(\) High Wa	GY drology Indicators cators (minimum of Water (A1) ter Table (A2)	observe	ed.	eck all that ap □ Water-St 1, 2,	ained Lea 4A, and 4	, , ,	xcept MLF		Secon	ndary Indic ater-Stain 4A, and	cators (2 or ed Leaves (more required) (B9) (MLRA 1, 2)
emarks: o hydric s /DROLO /etland Hydrimary India Surface v High Wa Saturatio	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3)	observe	ed.	eck all that ap ☐ Water-St 1, 2, 4 ☐ Salt Crus	ained Lea 4A, and 4 st (B11)	В)	xcept MLF		Secon W	ndary Indic ater-Stain 4A, and rainage Pa	cators (2 or ed Leaves (4B) atterns (B10	more required) (B9) (MLRA 1, 2
emarks: o hydric s /DROLO /etland Hydrimary India Surface v High Wa Saturatic Water M.	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)	observe	ed.	eck all that ap Water-St 1, 2,	ained Lea 4A, and 4 st (B11) nvertebrat	B) res (B13)	xcept MLF		Secon W	ndary Indic ater-Stain 4A, and rainage Pa ry-Season	cators (2 or ed Leaves (4B) atterns (B10 Water Tab	more required) (B9) (MLRA 1, 2)
emarks: o hydric s /DROLO /etland Hy rimary India Surface High Wa Saturatic Water Mail Sedimen	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	observe	ed.	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydroger	ained Lea 4A, and 4 it (B11) nvertebrat Sulfide (es (B13) Odor (C1)	·	RA	Secon W Di Si	ndary Indic ater-Stain 4A, and rainage Pa ry-Season aturation V	cators (2 or ed Leaves (4B) atterns (B10 Water Tab /isible on Ad	more required) (B9) (MLRA 1, 2) (Be (C2) (Be in a green
Primary India Surface S High Wa Saturatic Water M. Sedimen Drift Dep	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) on Deposits (B2) oosits (B3)	observe	ed.	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydroger Oxidized	ained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph	es (B13) Odor (C1) eres along	Living Roc	RA	Secon W Di Si Gi Gi	ndary Indic ater-Stain 4A, and rainage Pa ry-Season aturation V	cators (2 or ed Leaves (4B) atterns (B10 Water Table /isible on Ae	more required) (B9) (MLRA 1, 2) (Be (C2) (Be in a green
/DROLO /etland Hydric s Surface s High Wa Saturatio Water Male Sediment Drift Dep	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)	observe	ed.	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydrogei Oxidized Presence	ained Lea 4A, and 4 at (B11) nvertebrat n Sulfide C Rhizosph e of Reduc	es (B13) Odor (C1) eres along and Iron (C4	Living Roc	RA ots (C3)	Secor W Di Di Si Gi Gi Si	ndary Indicater-Staina 4A, and rainage Pary-Season aturation Vector of the comorphic callow Aqu	cators (2 or ed Leaves (4B) atterns (B10 Water Table /isible on Ac c Position (D3)	more required) (B9) (MLRA 1, 2) (Be (C2) (Be in a green
YDROLO Vetland Hydric S High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) osits (B5)	observe	ed.	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence	ained Lea 4A, and 4 at (B11) nvertebrat a Sulfide (Rhizosph a of Reduct on Reduct	es (B13) Odor (C1) eres along ced Iron (C4 tion in Tiller	· Living Roo I) d Soils (C6	RA ots (C3)	Secor W Di Di Si Gi Si F/	ndary Indicater-Staina 4A, and rainage Pary-Season aturation Vecmorphicallow Aquac-Neutra	cators (2 or ed Leaves (4B) atterns (B10 Water Table /isible on Ae c Position (D uitard (D3)	more required) (B9) (MLRA 1, 2)
YDROLO Vetland Hydric S Surface V High Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)	observe s: f one requ	ed.	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence	ained Lea 4A, and 4 at (B11) nvertebrat a Sulfide (Rhizosph a of Reduct on Reduct	es (B13) Ddor (C1) eres along sed Iron (C2 tion in Tilled d Plants (D	· Living Roo I) d Soils (C6	RA ots (C3)	Secon W Di Di Sa Gi Si F# Ra	ndary Indicater-Stain- 4A, and rainage Pary-Season aturation Vector and the AC-Neutra aised Ant I	cators (2 or ed Leaves (4B) atterns (B10 Water Table /isible on Ac c Position (D3)	more required) (B9) (MLRA 1, 2) (B9) (MLRA 1, 2) (B9) (C2) (B9) (C2) (B9) (C2) (C3) (C3) (C4)
YDROLO Vetland Hydric S Surface S High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundation	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial	s: fone requ	ed. uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence	ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide C Rhizosph e of Reduct on Reduct or Stresse	es (B13) Ddor (C1) eres along sed Iron (C2 tion in Tilled d Plants (D	· Living Roo I) d Soils (C6	RA ots (C3)	Secon W Di Di Sa Gi Si F# Ra	ndary Indicater-Stain- 4A, and rainage Pary-Season aturation Vector and the AC-Neutra aised Ant I	cators (2 or ed Leaves (4B) atterns (B10 Water Tab /isible on Ae c Position (D uitard (D3) Il Test (D5) Mounds (D6	more required) (B9) (MLRA 1, 2) (B9) (MLRA 1, 2) (B9) (C2) (B9) (C2) (B9) (C2) (C3) (C3) (C4)
YDROLO Yetland Hydric S Yunding Surface S High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial	s: fone requ	ed. uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence	ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide C Rhizosph e of Reduct on Reduct or Stresse	es (B13) Ddor (C1) eres along sed Iron (C2 tion in Tilled d Plants (D	· Living Roo I) d Soils (C6	RA ots (C3)	Secon W Di Di Sa Gi Si F# Ra	ndary Indicater-Stain- 4A, and rainage Pary-Season aturation Vector and the AC-Neutra aised Ant I	cators (2 or ed Leaves (4B) atterns (B10 Water Tab /isible on Ae c Position (D uitard (D3) Il Test (D5) Mounds (D6	more required) (B9) (MLRA 1, 2) (B9) (MLRA 1, 2) (B9) (C2) (B9) (C2) (B9) (C2) (C3) (C3) (C4)
YDROLO YDROLO Yetland Hydric S Surface S High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Obser	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concavations:	s: fone requ	ed. uired; che (B7) e (B8)	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydrogel Oxidized Presence Recent Ir Stunted o	ained Lea 4A, and 4 st (B11) nvertebrat n Sulfide (Rhizosph e of Reduction Redu	es (B13) Dodor (C1) eres along ced Iron (C4 tion in Tilled d Plants (D temarks)	· Living Roo I) d Soils (C6	RA ots (C3)	Secon W Di Di Sa Gi Si F# Ra	ndary Indicater-Stain- 4A, and rainage Pary-Season aturation Vector and the AC-Neutra aised Ant I	cators (2 or ed Leaves (4B) atterns (B10 Water Tab /isible on Ae c Position (D uitard (D3) Il Test (D5) Mounds (D6	more required) (B9) (MLRA 1, 2) (B9) (MLRA 1, 2) (B9) (C2) (B9) (C2) (B9) (C2) (C3) (C3) (C4)
YDROLO Vetland Hydric S Timary India Surface S High Wa Sedimen Orift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Obser	GY drology Indicators cators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar vations: er Present?	observe s: fone requ limagery ve Surface	ed. uired; che (B7) e (B8)	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide C Rhizosph e of Reduct on Reduct or Stresse kplain in R es):	es (B13) Ddor (C1) eres along ed Iron (C ² tion in Tilled d Plants (D emarks)	· Living Roo I) d Soils (C6	RA ots (C3)	Secon W Di Di Sa Gi Si F# Ra	ndary Indicater-Stain- 4A, and rainage Pary-Season aturation Vector and the AC-Neutra aised Ant I	cators (2 or ed Leaves (4B) atterns (B10 Water Tab /isible on Ae c Position (D uitard (D3) Il Test (D5) Mounds (D6	more required) (B9) (MLRA 1, 2) (B9) (MLRA 1, 2) (B9) (C2) (B9) (C2) (B9) (C2) (C3) (C3) (C4)
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YDROLO YDROLO Wetland Hydric S Surface S High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatic Sparsely Field Obser Surface Water Table Saturation Peincludes cap	GY drology Indicators cators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concavations: er Present? Present? resent? pillary fringe)	observe s: fone requ Ves U Yes U Yes U Yes U	ed. (B7) e (B8) No 🗵 No 🗵	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct ron Reduct or Stresse kplain in R es): es): es):	es (B13) Ddor (C1) eres along ed Iron (C ² tion in Tilled d Plants (D emarks)	Living Root Soils (C6 Carry (LRR A)	RA ots (C3)	Secon W Di Si Si Si Fr	adary Indic ater-Stain 4A, and rainage Pa ry-Season aturation V eomorphic nallow Aqu AC-Neutra aised Ant I ost-Heave	cators (2 or ed Leaves (4B) atterns (B10 Water Tab /isible on Ae c Position (D uitard (D3) Il Test (D5) Mounds (D6	more required) (B9) (MLRA 1, 2) (Be (C2) (Berial Imagery (C9) (B) (LRR A) (B) (LRR A) (B) (D7)
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YDROLO YDROLO Wetland Hydric S Surface S High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatic Sparsely Field Obser Surface Water Table Saturation Peincludes cap	GY drology Indicators cators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concavations: er Present? Present? resent? pillary fringe)	observe s: fone requ Ves U Yes U Yes U Yes U	ed. (B7) e (B8) No 🗵 No 🗵	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct ron Reduct or Stresse kplain in R es): es): es):	es (B13) Ddor (C1) eres along ed Iron (C ² tion in Tilled d Plants (D emarks)	Living Root Soils (C6 Carry (LRR A)	RA ots (C3)	Secon W Di Si Si Si Fr	adary Indic ater-Stain 4A, and rainage Pa ry-Season aturation V eomorphic nallow Aqu AC-Neutra aised Ant I ost-Heave	cators (2 or ed Leaves (4B) atterns (B10 Water Table /isible on Ac c Position (D cuitard (D3) Il Test (D5) Mounds (D6 e Hummock	more required) (B9) (MLRA 1, 2) (Be (C2) (Berial Imagery (C9) (B) (LRR A) (B) (LRR A) (B) (D7)
YDROLO Vetland Hydric S Timary India Surface V High Wa Sedimen Orift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Obser Surface Wat Vater Table Seaturation P Includes cap	GY drology Indicators cators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concavations: er Present? Present? resent? pillary fringe)	observe s: fone requ Ves U Yes U Yes U Yes U	ed. (B7) e (B8) No 🗵 No 🗵	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Lea 4A, and 4 it (B11) nvertebrat n Sulfide C Rhizosph e of Reduct ron Reduct or Stresse kplain in R es): es): es):	es (B13) Ddor (C1) eres along ed Iron (C ² tion in Tilled d Plants (D emarks)	Living Root Soils (C6 Carry (LRR A)	RA ots (C3)	Secon W Di Si Si Si Fr	adary Indic ater-Stain 4A, and rainage Pa ry-Season aturation V eomorphic nallow Aqu AC-Neutra aised Ant I ost-Heave	cators (2 or ed Leaves (4B) atterns (B10 Water Table /isible on Ac c Position (D cuitard (D3) Il Test (D5) Mounds (D6 e Hummock	more required) (B9) (MLRA 1, 2) (Be (C2) (Berial Imagery (C9) (B) (LRR A) (B) (LRR A) (B) (D7)

Project/Site: 1655.0001 / Schoultes Property		City/Cour	_{nty:} Marysv	rille / Snohomish	Sampling Date: 06/19/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-44
				ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local re	lief (concave,	convex, none): None	Slope (%): 1
Subregion (LRR): A-2	_ Lat: 48.	139261	59	Long: -122.1627159	Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	× No □ (I	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampli	ng point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵					
Hydric Soil Present? Yes ☐ No 🗵			the Sampled		
Wetland Hydrology Present? Yes ☐ No 🗵		wit	thin a Wetlar	nd? Yes ☐ No) X
Remarks:		l			
No wetland criteria observed.					
VEGETATION – Use scientific names of plan	ts.				
		Dominar	nt Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			Number of Dominant Spo That Are OBL, FACW, or	
2				Total Number of Domina	
3				Species Across All Strata	a: <u>2</u> (B)
4 Sapling/Shrub Stratum (Plot size: 15 ft)	0			Percent of Dominant Spe That Are OBL, FACW, or	
1				Prevalence Index work	sheet:
2				Total % Cover of:	Multiply by:
3					x 1 = <u>0</u>
4		-			x 2 = <u>0</u>
5					x 3 = 150
Harb Stratum (Diet eizer 5 ft)	0	= Total	Cover		x 4 = <u>200</u>
Herb Stratum (Plot size: <u>5 ft)</u> 1 Dactylis glomerata	50	Yes	FACU	UPL species 0	x 5 = 0
2. Agrostis capillaris	20	Yes	FAC	Column Totals: NaN	(A) <u>NaN</u> (B)
3. Phleum pratense	15	No	FAC	Prevalence Index	= B/A = <u>NaN</u>
4 Holcus lanatus	10	No	FAC	Hydrophytic Vegetation	n Indicators:
_{5.} Plantago major	5	No	FAC	☐ Rapid Test for Hydro	phytic Vegetation
6.				☐ Dominance Test is >	50%
7				☐ Prevalence Index is :	≤3.0 ¹
8					ations ¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	. ,
10		-		_	nytic Vegetation¹ (Explain)
11	400			* * *	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	100	= Total		be present, unless distur	bed or problematic.
1	<u> </u>			Hydrophytic	
2	0	= Total	Cover	Vegetation Present? Yes	□ No ⊠
% Bare Ground in Herb Stratum 0		ı olal		100	
Remarks: No hydric soils indicators observed.					

Depth	Matrix				ox Feature		. ^	_		
(inches)	Color (moist)	%	_	r (moist)	%	Type ¹	Loc ²	Textu		Remarks
0 - 12	10YR 3/2	99	_ 10	/R 3/6	1	<u>C</u>	M	SaL	<u> </u>	
						-,				-
Type: C=C	Concentration, D=D	epletion,	RM=Red	uced Matrix, C	S=Covere	d or Coate	ed Sand G	rains.	² Loc	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Appl								dicato	rs for Problematic Hydric Soils ³ :
Histoso	l (A1)			Sandy Redox (S5)] 2 cm	Muck (A10)
	pipedon (A2)			Stripped Matrix	` '					Parent Material (TF2)
	listic (A3)			oamy Mucky			MLRA 1)	_	-	Shallow Dark Surface (TF12)
	en Sulfide (A4)	(* 4 4)		oamy Gleyed		2)] Othe	er (Explain in Remarks)
•	d Below Dark Surfa	ace (A11)		Depleted Matri				31.	1: 4	
	ark Surface (A12) Mucky Mineral (S1)			Redox Dark Su Depleted Dark	, ,			91		ors of hydrophytic vegetation and nd hydrology must be present,
-	Gleyed Matrix (S4)			Redox Depres	•	1)				s disturbed or problematic.
	Layer (if present)	:		todox Bopicos	310113 (1 0)				dilloo	o distarbed of problematic.
	ompacted			_						
Depth (ir	nches): 12			-				Hydr	ic Soil	Present? Yes ☐ No ☒
Remarks:								riyai		1103CHR: 103 CH NO ES
المائدات الما	soils indicators		I							
YDROLO	OGY									
	OGY ydrology Indicator	rs:								
Vetland Hy			uired; che						Secon	ndary Indicators (2 or more required)
Vetland Hy Primary Ind	ydrology Indicator icators (minimum o Water (A1)		uired; che	eck all that app		es (B9) (e	xcept MLF	RA		ndary Indicators (2 or more required) later-Stained Leaves (B9) (MLRA 1, 2
Vetland Hy rimary Ind	ydrology Indicator icators (minimum o		uired; che	☐ Water-Sta			xcept MLF	RA	□ W	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Vetland Hy rimary Ind Surface High Wa	ydrology Indicator icators (minimum o Water (A1) ater Table (A2)		uired; che	☐ Water-Sta	ined Leav A, and 4E		xcept MLF	RA	□ W	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10)
Vetland Hy rimary Ind Surface High Wa Saturati	ydrology Indicator icators (minimum o Water (A1) ater Table (A2)		uired; che	☐ Water-Sta	ined Leav A, and 4B (B11)	3)	xcept MLF	RA	W	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Vetland Hy rimary Ind Surface High Wa Saturati Water M	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3)		uired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	ined Leav A, and 4E (B11) vertebrate Sulfide O	s (B13) dor (C1)			W	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10)
vetland Hy rimary Ind Surface High Wa Saturati Water N Sedime Drift De	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)		uired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	ined Leav A, and 4E (B11) vertebrate Sulfide O	s (B13) dor (C1)	xcept MLF		☐ W ☐ Di ☐ Di ☐ Si	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Primary Ind Surface High Water N Sedime Drift De	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		uired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	A, and 4E (B11) Vertebrate Sulfide O	s (B13) dor (C1) res along	Living Roo		W Di Di Sa Go	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9
Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		uired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro	ined Leav A, and 4E (B11) vertebrate Sulfide Or Rhizosphe of Reduce	s (B13) dor (C1) res along d Iron (C4 on in Tille	Living Roo 4) d Soils (C6	ts (C3)	☐ W ☐ Di ☐ Di ☐ Si ☐ Gi ☐ Si ☐ Fi	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cs eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5)
Vetland Hy Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) s Soil Cracks (B6)	f one requ		Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro Stunted o	nined Leaver. A, and 4E (B11) Invertebrate Sulfide Or Rhizosphe of Reduce on Reduction	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 1)	ts (C3)	W Di Di Si Gi Si F#	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cseomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Vetland Hy Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface Inundati	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria	f one requ	· (B7)	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro	nined Leaver, A, and 4E (B11) Invertebrate Sulfide Or Rhizosphe of Reduce on Reduction Stressed	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	ts (C3)	W Di Di Si Gi Si F#	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cs eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5)
Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface Inundati Sparsel	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca	f one requ	· (B7)	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro Stunted o	nined Leaver, A, and 4E (B11) Invertebrate Sulfide Or Rhizosphe of Reduce on Reduction Stressed	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	ts (C3)	W Di Di Si Gi Si F#	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cseomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface Inundati Sparsel	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca	f one requ	r (B7) ce (B8)	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro Stunted o	nined Leaver, A, and 4E (B11) Invertebrate Sulfide Or Rhizosphe of Reduce on Reduction Stressed	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	ts (C3)	W Di Di Si Gi Si F#	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cseomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface Inundati Sparsel	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca	f one requ	· (B7)	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Iro Stunted o	nined Leav A, and 4E (B11) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re	s (B13) dor (C1) res along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6	ts (C3)	W Di Di Si Gi Si F#	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cseomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Primary Ind Surface High Wa Saturati Water N Sedime Drift De Algal Ma Iron De Surface Inundati Sparsel	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ater Present?	l Imagery ve Surfac	r (B7) ce (B8)	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irc Stunted o Other (Ex	nined Leav A, and 4E (B11) Invertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	ts (C3)	W Di Di Si Gi Si F#	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cseomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Primary Ind Surface High Water M Sedime Drift De Algal Mater Surface Inundati Sparsel Field Obse Surface Water Table Saturation F	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ater Present? e Present?	I Imagery ve Surfac	v (B7) ce (B8) No ⊠	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irc Stunted o Other (Ex	ained Leav A, and 4E (B11) Avertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re as):	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	W	rater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cseomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Inundati Sparsel Field Obse Surface Wa Water Table Saturation Fincludes ca	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ater Present? e Present? present?	I Imagery ve Surface Yes Yes Yes Yes Yes	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ined Leav A, and 4B (B11) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)) and Hyo	W	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 ecomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hy Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Inundati Sparsel Field Obse Surface Wa Water Table Saturation Fincludes ca	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ater Present? e Present?	I Imagery ve Surface Yes Yes Yes Yes Yes	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ined Leav A, and 4B (B11) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)) and Hyo	W	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 ecomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hy Primary Ind Surface High Wa Saturati Water N Sedime Drift De Algal Ma Iron De Surface Inundati Sparsel Field Obse Surface Wa Water Table Saturation Fincludes ca	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ater Present? e Present? present?	I Imagery ve Surface Yes Yes Yes Yes Yes	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ined Leav A, and 4B (B11) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)) and Hyo	W	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 ecomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hy Primary Ind Surface High Wa Saturati Water N Sedime Drift De Algal Ma Iron De Surface Inundati Sparsel Field Obse Surface Wa Water Table Saturation Fincludes ca Describe Re	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ater Present? e Present? Present? apillary fringe) ecorded Data (streat	I Imagery ve Surfac Yes Yes Yes Am gauge	v (B7) ce (B8) No 🗵 No 🗵 No 🗷	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irc Stunted o Other (Ex Depth (inched	ined Leav A, and 4B (B11) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)) and Hyo	W	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 ecomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Vetland Hy rimary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface Inundati Sparsel ield Obse surface Wa Vater Table saturation F ncludes ca	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ater Present? e Present? present?	I Imagery ve Surfac Yes Yes Yes Am gauge	v (B7) ce (B8) No 🗵 No 🗵 No 🗷	Water-Sta 1, 2, 4 Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex Depth (inche Depth (inche	ined Leav A, and 4B (B11) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti r Stressed plain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)) and Hyo	W	later-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 ecomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/C	ounty	. Marysv	rille / Snohomis	shsam	pling Date: 06	5/19/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA			
Investigator(s): Emily Swaim, Kyla Caddey								
Landform (hillslope, terrace, etc.): Valley Floor		Local	l relie	f (concave,	, convex, none):	Convex	Slope	(%): 1
Subregion (LRR): A-2								
					NWI c			
Are climatic / hydrologic conditions on the site typical for the								
Are Vegetation, Soil, or Hydrology si	gnificantly dis	turbed	?	Are "No	ormal Circumstand	es" present?	Yes ⊠ No	
Are Vegetation, Soil, or Hydrology na	turally probler	matic?		(If need	ed, explain any an	swers in Rem	narks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sam	plin	g point l	ocations, tran	sects, imp	ortant feat	ures, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐	1							
Hydric Soil Present? Yes ☒ No ☐	_			e Sampled				
Wetland Hydrology Present? Yes ☒ No ☐]		with	in a Wetlar	1 d? Ye	s ເ⊠ No 🗌		
Remarks:					1. 1.0.11			
Wetland B plot. All three wetlan	d criteria	obse	erve	d; agric	ultural field			
VEGETATION – Use scientific names of pla	nts.							
	Absolute				Dominance Tes	st worksheet	:	
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dom That Are OBL, F			(A)
2					Total Number of	Dominant		
3					Species Across	All Strata:	2	(B)
4	0		tal C	over	Percent of Domi			(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft)								
1					Prevalence Ind			
2						ver of:	•	_
3					OBL species			
4					FACW species FAC species			
5	0		tal C		FACU species			
Herb Stratum (Plot size: 5 ft)					UPL species			
1. unidentified rye grass	10	Yes	3	FAC	Column Totals:			
2. Equisetum arvense	10	Yes	<u> </u>	FAC				
3							\ =	_
4					Hydrophytic Ve	•		
5						or Hydrophyti	c Vegetation	
6						Test is >50%		
7					_	Index is ≤3.0¹		
8							s¹ (Provide suր ւ a separate sh	
9					☐ Wetland No		•	,
10					_		Vegetation¹ (E:	xplain)
11					¹Indicators of hy		• ,	. ,
Woody Vine Stratum (Plot size: 30 ft)	20	= To	tal C	over	be present, unle			
1		· 			Hydrophytic			
2	0				Vegetation	Vec 🖂	No 🗆	
% Bare Ground in Herb Stratum 80	<u>U</u>	= To	tal C	over	Present?	Yes ⊠	ио 🗀	
Remarks: Hydrophytic vegetation criterion obse	erved through	ah da	min	ance test	t indicator: Uni	dentified ru	e drass sne	-cies
assumed to be facultative for scoring								5100

Depth	cription: (Described) Matrix				ox Featur		or commi	ii uic ab	301100	or maicators.,
(inches)	Color (moist)	%		or (moist)	%	Type ¹	Loc ²	Textur		Remarks
0 - 12	10YR 3/2	95	7.5	YR 5/8	5	С	M, PL	SaLo)	
12 - 16	6/1	50	7.5	YR 5/8	50	С	M	SaLo)	
					-			-		
	•									
	-									
										_
	-		_							·
									0.	
	Concentration, D=D Indicators: (App						ed Sand G			cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
_		iicabie to				ieu.)				<u>-</u>
☐ Histoso	pipedon (A2)			Sandy Redox (Stripped Matrix						n Muck (A10) I Parent Material (TF2)
	istic (A3)			Loamy Mucky I		1) (excen	t MI RA 1)			y Shallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Gleyed	•	,	CINILITY I)			er (Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Depleted Matri	•	-/			, o	o. (=p.a)
-	ark Surface (A12)	,		Redox Dark Su)		³ 1	ndicat	ors of hydrophytic vegetation and
☐ Sandy M	Mucky Mineral (S1)			Depleted Dark	Surface (F7)			wetla	and hydrology must be present,
☐ Sandy 0	Gleyed Matrix (S4)			Redox Depress	sions (F8)				unle	ss disturbed or problematic.
Restrictive	Layer (if present)	:								
Type:										
Depth (ir	nches):							Hydr	ic Soi	l Present? Yes ⊠ No 🗌
Remarks:								1		
HYDROLO	ncv									
_	/drology Indicator		ilradı ab	aak all that ann	.1)				Cooo	nden (Indicators (2 or more required)
	icators (minimum o	one requ	urea; cn			(50) (andary Indicators (2 or more required)
Surface				➤ Water-Sta		, , ,	except MLF	KA	× V	Vater-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)				A, and 4E	3)				4A, and 4B)
☐ Saturati	` '			☐ Salt Crust	` '	(D40)				Orainage Patterns (B10)
	farks (B1)			☐ Aquatic In		` '				Ory-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydrogen			Living Doo	to (C2)		saturation Visible on Aerial Imagery (C9)
	posits (B3)					_	Living Roo	ils (C3)		Geomorphic Position (D2)
	at or Crust (B4)			☐ Presence		,	4) d Soils (C6	:\		Shallow Aquitard (D3)
	oosits (B5) Soil Cracks (B6)						01) (LRR A)	,		AC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
	on Visible on Aeria	ıl İmagery	(R7)	Other (Ex			/1) (LKK A)	,		rost-Heave Hummocks (D7)
	y Vegetated Conca		` '		piani ili IX	omano)			<u></u> п	TOST FICANCE HAMILITOCKS (DT)
Field Obse	-	TVC Ouriac	C (DO)							
	ter Present?	Yes □	No 🔀	Depth (inche	e).					
Water Table		Yes 🗌	No 🗵	Depth (inche						
					,		Mod	and Use	ممامما	W Draggert 2 Van W No 🗆
Saturation F (includes ca	resent? pillary fringe)	Yes 🗌	No 🔀	Depth (inche	s)		vveti	anu Hy0	110100	gy Present? Yes ⊠ No □
Describe Re	ecorded Data (stream	am gauge	, monitor	ing well, aerial	photos, p	revious in	spections),	if availa	ble:	
MP-7 well	data									
Remarks:										
Wetland h	ydrology criteri	on obse	rved th	rough B6. E	38, & B9) primary	v indicato	rs.		
	5 57 1 1211			J - / -						

Project/Site: 1655.0001 / Schoultes Property		City/C	ounty	_{/:} Marysv	rille / Snohomi	ish Sa	ampling Date: 06	/19/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA			
Investigator(s): Emily Swaim, Kyla Caddey								
Landform (hillslope, terrace, etc.): Valley Floor								(%): 1
Subregion (LRR): A-2								
					NWI			
Are climatic / hydrologic conditions on the site typical for thi								
Are Vegetation, Soil, or Hydrology sig	nificantly dis	turbed	1?	Are "No	ormal Circumstan	ces" present	? Yes 🗵 No	
Are Vegetation, Soil, or Hydrology nati				(If need	ed, explain any a	nswers in Re	emarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sam	plin	g point l	ocations, trai	nsects, in	portant feat	ures, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐								
Hydric Soil Present? Yes ☐ No 🗵				e Sampled			_	
Wetland Hydrology Present? Yes ☐ No ☒			with	in a Wetlar	nd? Y	es 🗌 No 🛭	S	
Remarks:			_		_			
Not all three wetland criteria obs	erved, or	nly h	ydr	ophytic	vegetation p	resent; a	gricultural i	field
VEGETATION – Use scientific names of plan	ts.							
	Absolute				Dominance Te	st workshe	et:	
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Don That Are OBL,			(A)
2					Total Number of	of Dominant	_	
3					Species Across	s All Strata:	2	(B)
4	0		otal C	over	Percent of Don That Are OBL,			(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft)					Prevalence Inc	dex worksh	eet.	
1 2							Multiply b	v:
3							x 1 =	-
4.							x 2 =	
5.							x 3 =	
	0	= To	otal C	over			x 4 =	
Herb Stratum (Plot size: <u>5 ft</u>)					UPL species		_ x 5 =	
1. Holcus lanatus	50				Column Totals:	<u> </u>	(A)	(B)
2. unidentified grass spp.	40	Ye		FAC	Prevalen	ne Index - F	3/A =	
3			_		Hydrophytic V			_
4					1	_	ytic Vegetation	
5					· ·	Test is >50	-	
6						Index is ≤3.		
7 8					-		ons¹ (Provide sup	portina
9.							on a separate sh	
10					☐ Wetland No	on-Vascular	Plants¹	
11					☐ Problemati	c Hydrophyti	c Vegetation¹ (Ex	κplain)
Woody Vine Stratum (Plot size: 30 ft)	90	= To	otal C	over			d wetland hydrolo d or problematic.	
1					Unadan I 4!			
2					Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 10	0	= To	otal C	over	Present?	Yes 🗵	No 🗌	
Remarks:	- 14				i.			
Hydrophytic vegetation criterion obser assumed to be facultative for scoring								•

Depth	cription: (Descri Matri		_		ox Feature		or commi	แเซ สมร		or maleuters.
(inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Texture	<u> </u>	<u>Remarks</u>
0 - 12	10YR 3/2	99	7.5	YR 4/6	1	С	PL, M	SaLo)	
12 - 18	10YR 5/3	90	10	YR 5/8	10	CS	M	Sand		
					_					
					_					
	oncentration, D=[ed Sand G			cation: PL=Pore Lining, M=Matrix.
	Indicators: (App	olicable to a				ted.)				rs for Problematic Hydric Soils ³ :
Histosol	, ,			Sandy Redox (-			_		Muck (A10)
	oipedon (A2)			Stripped Matrix	. ,	4) /	4 MI DA 4\			Parent Material (TF2)
☐ Black Hi				_oamy Mucky N			t MLRA 1)		-	Shallow Dark Surface (TF12)
	n Sulfide (A4) d Below Dark Surf	face (A11)		∟oamy Gleyed l Depleted Matrix		')			Othe	er (Explain in Remarks)
•	ark Surface (A12)	, ,		Redox Dark Su	, ,	١		³ In	dicato	ors of hydrophytic vegetation and
	lucky Mineral (S1			Depleted Dark						nd hydrology must be present,
-	Gleyed Matrix (S4)			Redox Depress		,				s disturbed or problematic.
Restrictive	Layer (if present	:):		•						· · · · · · · · · · · · · · · · · · ·
Type:				_						
Depth (in	ches):							Hydrid	Soil	Present? Yes ☐ No ⊠
Remarks:										
No hydric	soils indicators	sobserve	d							
i to ily allo			. .							
HYDROLO										
	drology Indicato			- 4 - 4	L A				0	adama ka dia ataua (O amanana manaina di
	cators (minimum	of one requi	red; che							ndary Indicators (2 or more required)
	Water (A1)			☐ Water-Stai		. , ,	except MLF	RA	⊔ W	ater-Stained Leaves (B9) (MLRA 1, 2,
_	iter Table (A2)				A, and 4E	3)			_	4A, and 4B)
☐ Saturation	, ,			☐ Salt Crust					_	rainage Patterns (B10)
	arks (B1)			Aquatic Inv						ry-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen						aturation Visible on Aerial Imagery (C9)
	posits (B3)				•	-	Living Roo	, ,		eomorphic Position (D2)
	at or Crust (B4)			Presence		•	•			nallow Aquitard (D3)
-	oosits (B5)			☐ Recent Iro			•	•		AC-Neutral Test (D5)
	Soil Cracks (B6)		D.7\			-	01) (LRR A))		aised Ant Mounds (D6) (LRR A)
	on Visible on Aeri			☐ Other (Exp	olain in Re	emarks)			∐ Fr	rost-Heave Hummocks (D7)
	/ Vegetated Conc	ave Surface	(B8)				1			
Field Obser										
Surface Wat	ter Present?		No 🔀	Depth (inches						
Water Table	Present?	Yes 🗌	No 🗵	Depth (inches	s):					
Saturation P		Yes	No 🗵	Depth (inches	s):		Wetl	and Hyd	rolog	y Present? Yes □ No ⊠
	pillary fringe) corded Data (stre	am gauge	monitor	ing well aerial	photos n	revious in	spections)	if availah	ıle:	
2556156116	23,404 Data (3116	gaago,		yo.i, aciiai	μοιου, μ	. 51.003 111		availab		
Remarks:										
	d bydrology in	dicatora a	heem	ad						
ino wellah	d hydrology in	uicatuis C	noel V	c u.						

Project/Site: 1655.0001 / Schoultes Property		City/Coun	_{ty:} Marysv	rille / Snohomish	Sampling Date: 06/20/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-47
				ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor					
Subregion (LRR): A-2	_ _{Lat:} 48.	1385896	53	Long: -122.1667548	B1 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes 🗵	No □ (l	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes 🗵 No 🗌
Are Vegetation, Soil, or Hydrology natu	ırally probler	matic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplir	ng point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☒ No ☐			he Sampled		
Wetland Hydrology Present? Yes ☒ No ☐		witi	hin a Wetlar	nd? Yes ☒ No	o ∐
Remarks:		I			
Wetland C plot. All three wetland	criteria	observ	ed.		
VECETATION . Her exicutific names of plants	40				
VEGETATION – Use scientific names of plan	Absolute	Dominan	t Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 30 ft)	% Cover			Number of Dominant Sp	
1. Alnus rubra	70	Yes	FAC	That Are OBL, FACW, o	
2. Populus balsamifera	25	Yes	FAC	Total Number of Domina	ant
3				Species Across All Strata	_
4			·	Percent of Dominant Spe	ecies
Sapling/Shrub Stratum (Plot size: 15 ft)	95	= Total (Cover	That Are OBL, FACW, o	
1. Lonicera involucrata	70	Yes	FAC	Prevalence Index work	sheet:
2. Rubus spectabilis	10	No	FAC		Multiply by:
3.		-			x 1 =
4					x 2 =
5.				· ·	x 3 =
	80	= Total (Cover		x 4 =
Herb Stratum (Plot size: 5 ft)	25		540	UPL species	x 5 =
1. Athyrium cyclosorum	25	Yes		Column Totals:	(A) (B)
2. Carex leporina	10	Yes	FACW	Dravalance Index	- D/A -
3				Hydrophytic Vegetation	= B/A =
4				Rapid Test for Hydro	
5				Dominance Test is >	
6				☐ Prevalence Index is:	
7				_	tations ¹ (Provide supporting
8 9					or on a separate sheet)
10				☐ Wetland Non-Vascul	ar Plants ¹
11	-			☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
	35	= Total (Cover	¹ Indicators of hydric soil be present, unless distur	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)				be present, unless distur	bed or problematic.
1				Hydrophytic	
2				Vegetation	
% Bare Ground in Herb Stratum 65	0	= Total (Cover	Present? Yes	X No □
Remarks:					
Hydrophytic vegetation criteria observ	ed througl	n domin	ance test,	prevalence index, an	d rapid test for
hydrophytic vegetation.					

Depth inches)	Color (moist)	%		r (moist)	%	Type ¹	Loc ²	Texture	Remarks
) - 11	10YR 3/2	95	7.5	YR 4/6	5	С	PL, M	SaLo	
11 - 16	5/	42	7.5	YR 5/8	3	C, CS	M	Sand	matrix color is N 5/0.
1 - 16	/		2.5	YR 5/6	55	CS	M	Sand	
			_						
	-								
									
									
	oncentration, D=De						ed Sand Gr		² Location: PL=Pore Lining, M=Matrix.
	ndicators: (Appl	icable to				oted.)			icators for Problematic Hydric Soils ³ :
Histosol (• •			Sandy Redox					2 cm Muck (A10)
•	ipedon (A2)			Stripped Matri	. ,	-d) /	MI DA 4\		Red Parent Material (TF2)
] Black His] Hydroger	n Sulfide (A4)			₋oamy Mucky ₋oamy Gleyed			WILKA 1)		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	Below Dark Surfa	re (Δ11)		Depleted Matr		۷)		Ш	Other (Explain in Remarks)
	rk Surface (A12)	(/1/1/)		Redox Dark S		3)		³ Ind	licators of hydrophytic vegetation and
	ucky Mineral (S1)			Depleted Dark	•	•			wetland hydrology must be present,
-	leyed Matrix (S4)			Redox Depres		. ,			unless disturbed or problematic.
strictive L	ayer (if present):	!		-					-
Type:				-					
	. \							Hydric	Soil Present? Yes ⋉ No □
emarks:	criterion obser				dicator.			Tryunc	Son Fresent: Tes 🖂 No 🗌
emarks: /dric soil /DROLO	criterion obser	ved thro			dicator.			Tiyunc	Son Fresent: Tes 🔼 No 🗌
emarks: /dric soil /DROLOG	criterion obser	ved thro	ough A	11 & F6 inc					Secondary Indicators (2 or more required
emarks: /dric soil /DROLOG	criterion obser GY drology Indicator eators (minimum of	ved thro	ough A	11 & F6 inc	ply)	ves (B9) (e	xcept MLR		
PROLOGETIAND IN THE PROLOGETIAND IN THE PROLOGETIAND IN THE PROCESSION OF T	criterion obser GY drology Indicator eators (minimum of	ved thro	ough A	11 & F6 inc	ply)	' ' '	xcept MLR		Secondary Indicators (2 or more required
processing the second of the s	GY drology Indicators eators (minimum of Water (A1) ter Table (A2)	ved thro	ough A	11 & F6 inc	ply) ained Lea 4A, and 4	' ' '	xcept MLR	<u>S</u>	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10)
PROLOGETIAN PROLOGETIAN PROLOGETIAN PROLOGETIAN PROLOGETIAN PROCESS OF THE PROPERTY OF THE PRO	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) n (A3)	ved thro	ough A	11 & F6 inc	ply) ained Lea 4A, and 4 st (B11)	В) ` ́ `	xcept MLR	<u>S</u>	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B)
DROLOG etland Hyd imary Indic Surface V High Wat Saturation Water Ma	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) n (A3)	ved thro	ough A	eck all that ap Water-St 1, 2, 4	ply) ained Lea 4A, and 4 st (B11) nvertebrat	B) res (B13)	xcept MLR		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10)
PROLOCETANT IN THE PROLOCETANT IN THE PROLOCETANT IN THE PROCESS OF T	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	ved thro	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger	ply) ained Lea 4A, and 4 at (B11) nvertebrat n Sulfide (B) res (B13)		<u>§</u>	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
PROLOGETIAN PROLOGETIAN PROLOGETIAN PROLOGETIAN PROLOGETIAN PROCESSION PROCES	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	ved thro	ough A	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydroger Oxidized	ply) ained Lea 4A, and 4 at (B11) nvertebrat n Sulfide C Rhizosph	es (B13) Odor (C1)	Living Roo	<u> </u>	Gecondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (
TDROLOG etland Hydrimary Indic Surface V High Wat Saturation Water Ma Sediment Drift Depo	GY drology Indicator eators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	ved thro	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroget Oxidized Presence	ply) ained Lea 4A, and 4 at (B11) nvertebrat n Sulfide C Rhizosph e of Reduc	es (B13) Odor (C1) eres along ced Iron (C4	Living Roof	EA [] [] [] [] [] [] [] [] [] [Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
DROLOG etland Hyd imary Indic Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	GY drology Indicator eators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Goil Cracks (B6)	ved thro	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Con Reductor Stresse	es (B13) Ddor (C1) eres along sed Iron (C4 tion in Tilled d Plants (D	Living Roof	EA [] [] [] [] [] [] [] [] [] [Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOG etland Hyd imary Indic Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio	GY drology Indicator eators (minimum of Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria	s: f one requ	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ply) ained Lea 4A, and 4 at (B11) nvertebrat n Sulfide C Rhizosph e of Reduc	es (B13) Ddor (C1) eres along sed Iron (C4 tion in Tilled d Plants (D	Living Roof	EA [] [] [] [] [] [] [] [] [] [Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
DROLOG etland Hyd imary Indic Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely	GY drology Indicator eators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca	s: f one requ	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Con Reductor Stresse	es (B13) Ddor (C1) eres along sed Iron (C4 tion in Tilled d Plants (D	Living Roof	EA [] [] [] [] [] [] [] [] [] [Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
TDROLOG TOROLOG TOR	GY drology Indicators eators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concar vations:	s: f one required the requirement of the requiremen	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydrogel Oxidized Presence Recent Ir Stunted o	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Rhizosph e of Reduction Redu	es (B13) Dodor (C1) eres along ded Iron (C4 tion in Tilled d Plants (D demarks)	Living Roof	EA [] [] [] [] [] [] [] [] [] [Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
TDROLOG etland Hyd imary Indic Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely eld Observariace Water	GY drology Indicator eators (minimum of Nater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca	s: f one require Surface Yes	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Con Reduction Reduction Stresser explain in Reduction Stresser explain in Reduction Stresser	es (B13) Ddor (C1) eres along sed Iron (C4 tion in Tiller d Plants (D lemarks)	Living Roof	EA [] [] [] [] [] [] [] [] [] [Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOCE POROLOCE PORO	GY drology Indicator eators (minimum of Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concavations: er Present? Present?	s: f one required three surfaces Yes Yes Yes Yes	(B7) Se (B8) No 🗵	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Rhizosph e of Reduction Reduction Stresse explain in Reduction Stresse	es (B13) Ddor (C1) eres along ced Iron (C4 tion in Tilled d Plants (D temarks)	Living Root) d Soils (C6) 1) (LRR A)	ts (C3) [Gecondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
PROLOGICATION OF TABLE OF TABL	GY drology Indicator eators (minimum of Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concar vations: er Present? Present?	s: f one require Surface Yes	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Carante Reduction Reduction Stresse explain in Reduction Stresse explain Stresse ex	es (B13) Ddor (C1) eres along ced Iron (C4 tion in Tilled d Plants (D temarks)	Living Root) d Soils (C6) 1) (LRR A)	ts (C3) [Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGE TOROLOGE TOROLOGICA	GY drology Indicator eators (minimum of Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concavations: er Present? Present?	s: f one required Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; che (B7) ee (B8) No 🗵 No 🗵	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Con Reduction Reduction Reduction Stresse explain in Reduction Stresse explain Stresse explain in Reduction Stresse explain in Reduction Stresse explain in Reduction Stresse explain Stresse	es (B13) Ddor (C1) eres along sed Iron (C4 tion in Tilled d Plants (D lemarks)	Living Roof Soils (C6 C) C) Wetla	ts (C3)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Process Pro	GY drology Indicator eators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) in Visible on Aeria Vegetated Conca vations: er Present? Present? resent?	s: f one required Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; che (B7) ee (B8) No 🗵 No 🗵	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Con Reduction Reduction Reduction Stresse explain in Reduction Stresse explain Stresse explain in Reduction Stresse explain in Reduction Stresse explain in Reduction Stresse explain Stresse	es (B13) Ddor (C1) eres along sed Iron (C4 tion in Tilled d Plants (D lemarks)	Living Roof Soils (C6 C) C) Wetla	ts (C3)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Process Pro	GY drology Indicator eators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) in Visible on Aeria Vegetated Conca vations: er Present? Present? resent?	s: f one required Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; che (B7) ee (B8) No 🗵 No 🗵	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ply) ained Lea 4A, and 4 at (B11) nvertebrate n Sulfide (Con Reduction Reduction Reduction Stresse explain in Reduction Stresse explain Stresse explain in Reduction Stresse explain in Reduction Stresse explain in Reduction Stresse explain Stresse	es (B13) Ddor (C1) eres along sed Iron (C4 tion in Tilled d Plants (D lemarks)	Living Roof Soils (C6 C) C) Wetla	ts (C3)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/Coun	_{ty:} Marysv	ville / Snohomish	Sampling Date: 06/20/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-48
				ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local reli	ef (concave,	, convex, none): Concav	e Slope (%): 1
Subregion (LRR): A-2	_ _{Lat:} 48.	1389191	1835	Long: -122.1670515	660833 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes 🗵	No □ (I	lf no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes 🗵 No 🗌
Are Vegetation, Soil, or Hydrology natu	ırally probler	matic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplir	ng point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☐ No 🗵			he Sampled		
Wetland Hydrology Present? Yes ☐ No 🗵		witi	hin a Wetlar	nd? Yes ☐ N	o 🔀
Remarks:					-
Not all three wetland criteria obs	erved, or	nly hydi	rophytic	vegetation present	•
VEGETATION – Use scientific names of plan	ts.				
	Absolute	Dominan	t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft)	% Cover			Number of Dominant Sp	
1. Alnus rubra	75	Yes	FAC	That Are OBL, FACW, o	r FAC: <u>4</u> (A)
2. Frangula purshiana	25	Yes	FAC	Total Number of Domina	
3		-		Species Across All Strat	a: <u>5</u> (B)
4	100			Percent of Dominant Sp	ecies
Sapling/Shrub Stratum (Plot size: 15 ft)	100	= Total (Cover	That Are OBL, FACW, o	r FAC: <u>80%</u> (A/B)
1. Sambucus racemosa	60	Yes	FACU	Prevalence Index work	sheet:
2. Rubus armeniacus	25	Yes	FAC	Total % Cover of:	Multiply by:
3. Populus tremuloides	5	No	FACU	OBL species	x 1 =
4				FACW species	x 2 =
5				FAC species	x 3 =
	90	= Total (Cover	FACU species	x 4 =
Herb Stratum (Plot size: 5 ft)	90	Yes	EAC	UPL species	x 5 =
1. Ranunculus repens 2. Rubus ursinus	80 15	No	FACU	Column Totals:	(A) (B)
				Prevalence Index	= B/A =
3				Hydrophytic Vegetation	
4				☐ Rapid Test for Hydro	
5				□ Dominance Test is >	· ·
6 7				☐ Prevalence Index is	≤3.0 ¹
8				☐ Morphological Adapt	tations ¹ (Provide supporting
9				data in Remarks	or on a separate sheet)
10.				Wetland Non-Vascul	
11.					nytic Vegetation¹ (Explain)
	95	= Total (Cover	Indicators of hydric soil be present, unless distur	and wetland hydrology must rbed or problematic.
Woody Vine Stratum (Plot size: 30 ft)				, ,	
1				Hydrophytic	
2	0	= Total (Vegetation Present? Yes	. ⊠ No □
% Bare Ground in Herb Stratum 5			Jover	rieseit: les	MO L
Pomorke:	vod throug		nanca tast	t indicator	
Hydrophytic vegetation criterion obser	veu iiiiou(gri domil	nance les	ı ırıulcal01.	

Depth	Matrix			Podo	x Feature	•		m the absence of indicators.)
(inches)	Color (moist)	%	Color	(moist)	%		Loc ²	Texture Remarks
0 - 11	10YR 3/3	100	/					SaLo
11 - 13	7.5YR 3/2	99	7.5Y	/R 4/6	1	C, CS	М	SaLo
					-			
	-		-		_			· · · · · · · · · · · · · · · · · · ·
	_				-			
			_		_			
					-			
1Type: C=C	oncentration, D=De	nlotion D	M-Podu	and Matrix CS	-Covered	d or Coata	d Sand C	2 costion: DI – Doro Lining M–Metrix
	Indicators: (Appli						u Sanu G	Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
☐ Histosol				andy Redox (S		· · · · · ·		☐ 2 cm Muck (A10)
	oipedon (A2)			tripped Matrix	-			Red Parent Material (TF2)
☐ Black His				oamy Mucky M	. ,) (except	MLRA 1)	` ,
	n Sulfide (A4)			oamy Gleyed N			,	Other (Explain in Remarks)
☐ Depleted	d Below Dark Surfa	ce (A11)		epleted Matrix	(F3)			
	ark Surface (A12)			edox Dark Sur	, ,			³ Indicators of hydrophytic vegetation and
	lucky Mineral (S1)			epleted Dark S		7)		wetland hydrology must be present,
	leyed Matrix (S4)		∐ R	edox Depressi	ons (F8)			unless disturbed or problematic.
	Layer (if present):							
Type: Depth (in	chos):							
. ,	Ciles)							Hydric Soil Present? Yes ☐ No 区
Remarks:								
No hydric s	soils indicators	observe	d.					
HYDROLO	GY							
Wetland Hy	drology Indicators							
Wetland Hy								Secondary Indicators (2 or more required)
Wetland Hy Primary India ☐ Surface	drology Indicators cators (minimum of Water (A1)			☐ Water-Stair	ned Leave		xcept ML	RA Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary India ☐ Surface ☐ High Wa	drology Indicators cators (minimum of Water (A1) ter Table (A2)			☐ Water-Stair	ned Leave		xcept ML	RA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hy Primary India □ Surface □ High Wa □ Saturatio	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3)		[□ Water-Stail 1, 2, 4A □ Salt Crust (ned Leave A, and 4B (B11))	xcept ML	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hy Primary India Surface High Wa Saturatio Water M	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)]	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv	ned Leave A, and 4B (B11) vertebrates) s (B13)	xcept ML	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)]	Water-Stain 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen \$	ned Leave A, and 4B (B11) rertebrates Sulfide Oc	s (B13) lor (C1)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)]	Water-Stain 1, 2, 4,4 Salt Crust (Aquatic Inv Hydrogen S Oxidized R	ned Leave A, and 4B (B11) Pertebrates Sulfide Ochhizospher	s (B13) lor (C1) res along	Living Roo	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)]	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of	ned Leave A, and 4B (B11) rertebrates Sulfide Oc hizospher	s (B13) lor (C1) res along d	Living Roo	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Dts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5)]	Water-Stain 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror	ned Leave A, and 4B (B11) rertebrates Sulfide Oc hizospher of Reduce	s (B13) lor (C1) res along d Iron (C4 on in Tilled	Living Roo) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6)	one requi	[] [] []	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or	ned Leave A, and 4B (B11) rertebrates Sulfide Oc hizospher of Reduce n Reduction	s (B13) lor (C1) res along d Iron (C4 on in Tilled Plants (D	Living Roo) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	one requi	[Water-Stain 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror	ned Leave A, and 4B (B11) rertebrates Sulfide Oc hizospher of Reduce n Reduction	s (B13) lor (C1) res along d Iron (C4 on in Tilled Plants (D	Living Roo) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial	one requi	[Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or	ned Leave A, and 4B (B11) rertebrates Sulfide Oc hizospher of Reduce n Reduction	s (B13) lor (C1) res along d Iron (C4 on in Tilled Plants (D	Living Roo) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concavivations:	Imagery ([Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp	ned Leave A, and 4B (B11) rertebrates Sulfide Od hizospher of Reduce n Reductio Stressed lain in Re	s (B13) for (C1) res along d Iron (C4 on in Tilled Plants (Di marks)	Living Roo) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B2) Iter Table (B2) Iter Table (B3) Iter Table (B4) Iter Table (B6) Iter Table (B	Imagery ([[[[[[[[[[[[[[[[[[[Water-Stain 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp	ned Leave A, and 4B (B11) vertebrates Sulfide Oc hizospher of Reduce on Reduction Stressed lain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B2) Iter Table (B2) Iter Table (B3) Iter Table (B4) Iter Table (B6) Iter Table (B	Imagery ([Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp	ned Leave A, and 4B (B11) vertebrates Sulfide Oc hizospher of Reduce on Reduction Stressed lain in Re	s (B13) for (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Water Table Saturation P	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B2) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B6) Iter Crust (B	Imagery (//e Surface Yes Yes Yes	[[[[[[[[[[[[[[[[[[[Water-Stain 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp	ned Leave A, and 4B (B11) rertebrate: Sulfide Ochizospher of Reduce n Reduction Stressed lain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (Di marks)	Living Roo) d Soils (Co 1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent? pillary fringe)	Imagery (//e Surface Yes Yes Yes Yes Yes Yes	[B7] [B8] No 🔀 No 🔀	Water-Stain 1, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	ned Leave A, and 4B (B11) vertebrates Sulfide Ochizospher of Reduce on Reduction Stressed lain in Res (S): (S): (S):	s (B13) for (C1) fees along to the control (C4) for in Tilled (D7) for marks)	Living Roo d Soils (Co 1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B2) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B6) Iter Crust (B	Imagery (//e Surface Yes Yes Yes Yes Yes Yes	[B7] [B8] No 🔀 No 🔀	Water-Stain 1, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	ned Leave A, and 4B (B11) vertebrates Sulfide Ochizospher of Reduce on Reduction Stressed lain in Res (S): (S): (S):	s (B13) for (C1) fees along to the control (C4) for in Tilled (D7) for marks)	Living Roo d Soils (Co 1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cal Describe Re	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent? pillary fringe)	Imagery (//e Surface Yes Yes Yes Yes Yes Yes	[B7] [B8] No 🔀 No 🔀	Water-Stain 1, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	ned Leave A, and 4B (B11) vertebrates Sulfide Ochizospher of Reduce on Reduction Stressed lain in Res (S): (S): (S):	s (B13) for (C1) fees along to the control (C4) for in Tilled (D7) for marks)	Living Roo d Soils (Co 1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent? pillary fringe) corded Data (strean	Imagery (//e Surface Yes Yes Yes Yes The magery of the control of the contr	[B7] [(B7) [⊕ (B8) No ⊠ No ⊠ monitorir	Water-Stain 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp Depth (inches Depth (inches	ned Leave A, and 4B (B11) vertebrates Sulfide Ochizospher of Reduce on Reduction Stressed lain in Res (S): (S): (S):	s (B13) for (C1) fees along to the control (C4) for in Tilled (D7) for marks)	Living Roo d Soils (Co 1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent? pillary fringe)	Imagery (//e Surface Yes Yes Yes Yes The magery of the control of the contr	[B7] [(B7) [⊕ (B8) No ⊠ No ⊠ monitorir	Water-Stain 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp Depth (inches Depth (inches	ned Leave A, and 4B (B11) vertebrates Sulfide Ochizospher of Reduce on Reduction Stressed lain in Res (S): (S): (S):	s (B13) for (C1) fees along to the control (C4) for in Tilled (D7) for marks)	Living Roo d Soils (Co 1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: 1655.0001 / Schoultes Property		City/Cou	_{nty:} Marysv	rille / Snohomish	Sampling Date: 06/20/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-49
				ownship, Range: 28, 31,	
Landform (hillslope, terrace, etc.): Valley Floor		_Local re	elief (concave,	, convex, none): Concav	e Slope (%): 2
Subregion (LRR): A-2	_ Lat: 48	.13922	2	Long: -122.166370	33 _{Datum:} WGS 84
Soil Map Unit Name: Norma Loam				NWI classificat	tion:
Are climatic / hydrologic conditions on the site typical for this				f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	ırally probler	matic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampli	ing point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ⊠ No □					
Hydric Soil Present? Yes ⊠ No □			the Sampled		
Wetland Hydrology Present? Yes ☒ No ☐		Wi	ithin a Wetlar	nd? Yes ☒ No	ɔ ∐
Remarks:		L			
Not all three wetland criteria obs	erved, hy	dric s	oil and we	eltand hydrology p	resent.
VEGETATION – Use scientific names of plan	ts.				
		Domina	nt Indicator	Dominance Test works	
Tree Stratum (Plot size: 30 ft) 1			s? Status	Number of Dominant Sp That Are OBL, FACW, or	
2				Total Number of Domina	ant
3				Species Across All Strata	a: <u>3</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0			Percent of Dominant Spe That Are OBL, FACW, o	
1				Prevalence Index work	sheet:
2.				Total % Cover of:	Multiply by:
3				OBL species	x 1 =
4.				FACW species	x 2 =
5				FAC species	x 3 =
	0	= Total	Cover		x 4 =
Herb Stratum (Plot size: 5 ft) 1. Ranunculus repens	40	Vac	FAC		x 5 =
2 Juncus effusus	25	Yes	FACW	Column Totals:	(A) (B)
3. unidentified grass spp.	20	Yes	FAC	Prevalence Index	= B/A =
4. unidentified grass spp.	15	No	FAC	Hydrophytic Vegetation	
5				☐ Rapid Test for Hydro	
6.				■ Dominance Test is > ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	·50%
7				☐ Prevalence Index is:	≤3.0 ¹
8					tations¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	•
10				_	nytic Vegetation¹ (Explain)
11	100				and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	100	= Total		be present, unless distur	
1				Hydrophytic	
2	0	= Total	Cover	Vegetation Present? Yes	× No □
	_ 				
Remarks: Hydrophytic vegetation criterion obser			inance test	t indicator.	
, , , , , , , , , , , , , , , , , , , ,		J			

Depth	Matrix			Red			1 2	T ·	_	D
(inches) 0 - 10	Color (moist) 10YR 3/2	<u>%</u> 95		r (moist) YR 2.5/3	<u>%</u> 5	Type ¹	Loc ²	Textur SaLo		Remarks
10 - 16	6/1	75	7.5	YR 5/8	25	<u>C</u>	M	SaLo)	
							<u> </u>			
			_							-
¹Type: C=C	oncentration, D=D	epletion, F	RM=Redu	uced Matrix, C	S=Cover	ed or Coa	ted Sand G	rains.	² Loc	ation: PL=Pore Lining, M=Matrix.
	Indicators: (App									rs for Problematic Hydric Soils ³ :
☐ Histosol	(A1)		□ S	Sandy Redox ((S5)					Muck (A10)
	oipedon (A2)			Stripped Matrix	` '					Parent Material (TF2)
	stic (A3)			oamy Mucky l	•	,	ot MLRA 1)		-	Shallow Dark Surface (TF12)
	en Sulfide (A4)			oamy Gleyed	-	2)			Othe	r (Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Depleted Matri	. ,			2.		no of books when the state of the state of
	ark Surface (A12)			Redox Dark Su	•	•		٩Ir		rs of hydrophytic vegetation and
-	Mucky Mineral (S1) Bleyed Matrix (S4)			Depleted Dark Redox Depress						nd hydrology must be present, s disturbed or problematic.
	Layer (if present)	•		tedox Depres	310113 (1 0)	<u>'</u>			unics	s distarbed of problematic.
Type:										
Depth (ir	ches):							Hydri	c Soil	Present? Yes ⊠ No □
Remarks: Hydric soi	criterion obser			11 & F3 ind	icator.				0 0011	. 100 M. 100 M. 110 M.
				11 & F3 ind	icator.			-		. 100 2 110 2
Hydric soil		ved thro		11 & F3 ind	icator.					
Hydric soil	OGY	ved thro	ough A							ndary Indicators (2 or more required)
Hydric soil HYDROLO Wetland Hy Primary Indi	IGY drology Indicator	ved thro	ough A		oly)	ves (B9) (except MLI	RA	Secon	
Hydric soil HYDROLO Wetland Hy Primary Indi Surface	OGY drology Indicator cators (minimum o	ved thro	ough A	eck all that app ☐ Water-Sta	oly)		except MLI	RA	Secon	ndary Indicators (2 or more required)
Hydric soil HYDROLC Wetland Hy Primary Indi Surface High Wa Saturati	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	ved thro	ough A	eck all that app ☐ Water-Sta	oly) ained Lea I A, and 4 l		except MLI	RA	Secon	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1 ,
Hydric soil HYDROLC Wetland Hy Primary Indi Surface High Wa	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	ved thro	ough A	eck all that app	oly) ained Lea IA, and 4	В)	except MLI		Secon	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
Hydric soil HYDROLO Wetland Hy Primary Indi Surface High Wa Saturati Water M	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	ved thro	ough A	eck all that app Water-Sta 1, 2, 4	oly) ained Lea I A, and 4 I t (B11) overtebrat	B) es (B13)	except MLI		Secon W:	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10)
Hydric soil HYDROLO Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedime	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)	ved thro	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	oly) ained Lear IA, and 4 l t (B11) overtebrat Sulfide C	B) es (B13) Odor (C1)	except MLI		Secon Will Dr Dr	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Hydric soil HYDROLO Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimen Drift De	edrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	ved thro	ough A	ck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I	oly) ained Lea IA, and 4 t (B11) avertebrate Sulfide C Rhizospho of Reduc	es (B13) Odor (C1) eres along red Iron (C	g Living Roo (4)	ots (C3)	Secon W: Dr Dr Sa Ge	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) ainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C
Hydric soil HYDROLO Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Jorift Der Algal Ma	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	ved thro	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	oly) ained Lea IA, and 4l t (B11) avertebrat Sulfide C Rhizospho of Reduc	es (B13) Odor (C1) eres along ed Iron (C	g Living Roc (4) ed Soils (C6	ots (C3)	Secon W: Dr Dr Sa Secon Sr FA	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
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Hydric soil Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimel Jrift Del Algal Ma Iron Dep Surface Inundati Sparsely Field Obsel Surface Wa Water Table Saturation F	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) aters (B1) at or Crust (B4) posits (B5) soil Cracks (B6) on Visible on Aeria (Vegetated Concauter Present?	I Imagery ve Surface Yes Yes Yes Yes	(B7) e (B8)	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	oly) ained Lear IA, and 4I t (B11) avertebrate Sulfide Con Reduct on Reduct on Reduct r Stressee plain in R	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I emarks)	g Living Roc (4) ed Soils (C6 (1) (LRR A	ots (C3) (5)	Secon Wi Dr Dr Sa Secon Ra Fr	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
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Project/Site: 1655.0001 / Schoultes Property	(City/Co	unty: Marys	ville / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-5
Investigator(s): Emily Swaim, Richard Peel, Jon Pi					
Landform (hillslope, terrace, etc.): Valley Floor		_Local r	elief (concave	e, convex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: <u>48</u> .	.13982	27	_ Long:122.163366	53 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	r? Yes	⋈ No □ (If no, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed?	Are "N	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?	(If need	ded, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	ling point	locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☒ No ☐			the Sample		
Wetland Hydrology Present? Yes ☐ No ☒		W	vithin a Wetla	nd? Yes ☐ No) X
Remarks: Not all three wetland criteria observed, only h	vdrophytic	vegetat	tion and hydr	ic soils were observed. No	n watland hydrology
confirmed by groundwater monitoring study.		vegetat	non and nydi	ic sons were observed. 140	n-wedand nydrology
VEGETATION – Use scientific names of plan	ts.				
			ant Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1			es? Status	Number of Dominant Sports That Are OBL, FACW, or	
2				Total Number of Domina	
3				Species Across All Strata	a: <u>1</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft)	0			Percent of Dominant Spe That Are OBL, FACW, or	
1				Prevalence Index work	sheet:
2				Total % Cover of:	
3					x 1 = 0
4				-	x 2 = 0
5					x 3 = <u>150</u>
Harb Stratum (Plat airs, 5 ft)	0	= Tota	al Cover		x 4 = 0
Herb Stratum (Plot size: <u>5 ft)</u> 1. Holcus lanatus	50	Yes	FAC	UPL species 0	x 5 = 0
2				Column Totals: 50	(A) <u>150</u> (B)
3				Prevalence Index	= B/A = <u>3</u>
4				Hydrophytic Vegetation	n Indicators:
5.				☐ Rapid Test for Hydro	phytic Vegetation
6.				▼ Dominance Test is >	50%
7				➤ Prevalence Index is:	≤3.0 ¹
8					tations ¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascul	, ,
10				☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
11	50				and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)			al Cover	be present, unless distur	bed or problematic.
1				Hydrophytic	
2	0	= Tota	al Cover	Vegetation Present? Yes	⊠ No □
% Bare Ground in Herb Stratum 50		100			
Remarks: Hydrophytic vegetation criterion observ	ved throug	ah dor	ninance tes	st indicator.	
and the second s		J 401			

Sampling Point: DP-5

Depth	Matrix Color (moist)	%	Colo	r (moist)	dox Featur		Loc ²	Toytur	_		Dom	orko	
inches)) - 7	10YR 3/1	98	_	YR 3/4	2	Type ¹ C	M, PL	SaLo			Rem	<u>narks</u>	
	-												
- 30	2.5Y 4/2	90	2.5	Y 4/4	10	<u>C</u>	M, PL	SiCIL	-0_				
ype: C=C	oncentration, D=D	epletion,	RM=Red	uced Matrix, (CS=Cover	ed or Coat	ed Sand Gr	ains.	² Loc	ation: Pl	_=Pore L	_ining, M=M	atrix.
dric Soil	Indicators: (App	icable to	all LRR	s, unless oth	erwise no	ted.)		Ind	dicato	rs for Pr	oblemat	tic Hydric S	oils³:
Histosol	(A1)			Sandy Redox	(S5)				2 cm	Muck (A	10)		
Histic Ep	pipedon (A2)			Stripped Matri	x (S6)				Red	Parent M	aterial (TF2)	
Black His				oamy Mucky			t MLRA 1)		-			rface (TF12)
	n Sulfide (A4)			oamy Gleyed		2)			Othe	r (Explair	in Rem	ıarks)	
	Below Dark Surfa	ice (A11)		Depleted Matr				2.					
	ark Surface (A12)			Redox Dark S	•	•		³In		-		vegetation a	
-	lucky Mineral (S1)			Depleted Dark	•	•						st be presen	τ,
	leyed Matrix (S4) Layer (if present)			Redox Depres	ssions (F8)			1	unies	s disturbe	ea or pro	blematic.	
Type:													
·· —													
Denth (in	ches).												
emarks: vdric soil	criterion obser			11 indicato	r.			Hydrid	c Soil	Present	? Yes	× No	
emarks: /dric soil	criterion obser	ved thr		11 indicato	r.			Hydrid	c Soil	Present?	r res	Z NO	
emarks: /dric soil	criterion obser GY drology Indicator	ved three	ough A										
emarks: /dric soil /DROLO etland Hydrimary Indice	criterion obser GY drology Indicator cators (minimum o	ved three	ough A	eck all that ap	ply)	ves (B0) (e	excent MI R		Secon	dary Indi	cators (2	2 or more re	quired)
emarks: /dric soil /DROLO etland Hydinimary India	GY drology Indicator cators (minimum o	ved three	ough A	eck all that ap □ Water-St	ply) ained Leav		except MLR		Secon	dary Indi ater-Stair	cators (2		quired)
DROLO etland Hydimary India Surface V High Wa	GY drology Indicator cators (minimum o Water (A1) ter Table (A2)	ved three	ough A	eck all that ap □ Water-St 1, 2,	ply) ained Lea\ 4 A, and 4 I		except MLR		Secon	dary Indi ater-Stair 4 A , and	cators (2 ned Lea\ I 4B)	2 or more re /es (B9) (MI	quired)
DROLO etland Hydimary India Surface V High Wa Saturatio	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3)	ved three	ough A	eck all that ap Water-St 1, 2, 4	ply) ained Leav 4A, and 4l st (B11)	В)	except MLR	RA	Secon	dary Indi ater-Stair 4A, anc ainage P	cators (2 ned Leav I 4B) atterns (2 or more re ves (B9) (MI	quired)
DROLO etland Hydimary Indic Surface V High Wa Saturatic Water M	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1)	ved three	ough A	eck all that ap Water-St 1, 2, Salt Crus Aquatic I	ply) ained Leav 4A, and 4l st (B11) nvertebrate	B) es (B13)	except MLR	RA	Secon W:	dary Indi ater-Stair 4A, and ainage P y-Seasor	cators (2 ned Leav I 4B) atterns (2 or more re ves (B9) (Mi (B10) Table (C2)	quired) _RA 1, 2
DROLO etland Hydimary India Surface V High Wa Saturatio Water Mi Sedimen	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	ved three	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydrogei	ply) ained Leav 4A, and 4l at (B11) nvertebrate	es (B13) Odor (C1)		RA	Secon W: Dr	dary Indi ater-Stair 4A, and ainage P y-Seasor turation \	cators (2 ned Leav I 4B) atterns (n Water Visible o	2 or more re /es (B9) (MI (B10) Table (C2) n Aerial Ima	quired) _RA 1, 2
DROLO etland Hydimary India Surface V High Wa Saturatio Water M Sedimen Drift Dep	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)	ved three	ough A	eck all that ap Water-St 1, 2, Salt Crus Aquatic I Hydroger Oxidized	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe	es (B13) Odor (C1) eres along	Living Root	RA	Secon W: Dr Dr Dr Sa	dary Indi ater-Stair 4A, and ainage P y-Seasor turation V	cators (2 ned Leav I 4B) atterns (n Water Visible o	2 or more re /es (B9) (MI (B10) Table (C2) In Aerial Ima on (D2)	quired) _RA 1, 2
DROLO etland Hydimary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)	ved three	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydrogel Oxidized Presence	ply) ained Leav 4A, and 4I st (B11) nvertebrate n Sulfide C Rhizosphe	es (B13) Odor (C1) eres along ed Iron (C	Living Root	RA tts (C3)	Secon W: Dr Dr Se	dary Indi ater-Stair 4A, and ainage P y-Seasor aturation v comorphi	cators (2 ned Leav I 4B) atterns (n Water Visible o c Positic uitard (E	2 or more re ves (B9) (MI (B10) Table (C2) In Aerial Ima on (D2)	quired) _RA 1, 2
DROLO etland Hyd mary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) osits (B5)	ved three	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduc	es (B13) Odor (C1) eres along ed Iron (C-	Living Roof 4) d Soils (C6)	RA tts (C3)	Secon W: Dr Dr Sa Ge St Ge St F#	dary Indi ater-Stair 4A, and ainage P y-Seasor ituration \ eomorphi allow Aq \C-Neutra	cators (2 ned Leav I 4B) atterns (n Water Visible of c Position uitard (Eal Test (I	2 or more re ves (B9) (MI (B10) Table (C2) n Aerial Ima on (D2) 03)	quired) _RA 1, 2
DROLO etland Hydimary India Surface High Wa Saturatio Water Mal Sedimen Drift Dep Algal Mal Iron Dep	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6)	s: f one requ	ough A	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct con Reduct or Stressed	es (B13) Dodor (C1) Deres along ed Iron (C- tion in Tille d Plants (C	Living Root	RA tts (C3)	Secon W: Dr Dr Sa Ge Sr	dary Indi ater-Stair 4A, and ainage P y-Seasor turation v comorphi allow Aq aC-Neutra ised Ant	cators (2 ned Leav I 4B) atterns (n Water Visible of the Position uitard (E al Test (I Mounds	2 or more reves (B9) (MI) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C3) (C4) (C5) (C5) (C6) (LRR	quired) _RA 1, 2
DROLO etland Hydimary Indice Surface High Wa Saturatio Water Mi Sedimen Drift Dep Algal Ma Iron Dep Surface Surface Iron Dep	GY drology Indicator cators (minimum of the Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria	s: f one requ	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduc	es (B13) Dodor (C1) Deres along ed Iron (C- tion in Tille d Plants (C	Living Roof 4) d Soils (C6)	RA tts (C3)	Secon W: Dr Dr Sa Ge Sr	dary Indi ater-Stair 4A, and ainage P y-Seasor turation v comorphi allow Aq aC-Neutra ised Ant	cators (2 ned Leav I 4B) atterns (n Water Visible of the Position uitard (E al Test (I Mounds	2 or more re ves (B9) (MI (B10) Table (C2) n Aerial Ima on (D2) 03)	quired) _RA 1, 2
DROLO etland Hydimary India Surface High Wa Saturatio Water Mi Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aeria	s: f one requ	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct con Reduct or Stressed	es (B13) Dodor (C1) Deres along ed Iron (C- tion in Tille d Plants (C	Living Roof 4) d Soils (C6)	RA tts (C3)	Secon W: Dr Dr Sa Ge Sr	dary Indi ater-Stair 4A, and ainage P y-Seasor turation v comorphi allow Aq aC-Neutra ised Ant	cators (2 ned Leav I 4B) atterns (n Water Visible of the Position uitard (E al Test (I Mounds	2 or more reves (B9) (MI) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C3) (C4) (C5) (C5) (C6) (LRR	quired) _RA 1, 2
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TDROLO etland Hydimary India Surface Water Male Sediment Drift Dep Algal Male Iron Dep Surface Surface Surface Surface Surface Surface Surface Surface Water Materials Sparsely	criterion observations: criterion observations: criterion observations GY drology Indicator cators (minimum of observations) water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar vations: er Present?	s: f one required Surface Yes	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct or Stressed xplain in Reduct	es (B13) Dodor (C1) Deres along ed Iron (C- tion in Tille d Plants (C	Living Roof 4) d Soils (C6)	RA tts (C3)	Secon W: Dr Dr Sa Ge Sr	dary Indi ater-Stair 4A, and ainage P y-Seasor turation v comorphi allow Aq aC-Neutra ised Ant	cators (2 ned Leav I 4B) atterns (n Water Visible of the Position uitard (E al Test (I Mounds	2 or more reves (B9) (MI) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C5) (C6) (LRR	quired) _RA 1, 2
DROLO etland Hydimary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely eld Obser	GY drology Indicator cators (minimum or water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Conca vations: er Present? Present?	s: f one required Surface Yes Yes	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct or Stressee xplain in R es):	es (B13) Dodor (C1) Deres along ed Iron (C- tion in Tille d Plants (C	Living Room 4) d Soils (C6) 1) (LRR A)	RA tts (C3)	Secon Wi Dr Dr Sa Ge Sh FA	dary Indi ater-Stair 4A, and ainage P y-Seasor ituration v eomorphi allow Aq iC-Neutra ised Ant ost-Heave	cators (2 ned Leav I 4B) atterns (o Water Visible o c Positic uitard (D al Test (I Mounds e Humm	2 or more reverse (B9) (MI) (B10) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C5) (C6) (C6) (C7)	quired) _RA 1, 2 agery (C:
DROLO etland Hydimary India Surface High Wa Saturatio Water M. Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely eld Obserurface Water Table aturation P	criterion observations: criterion observations: criterion observations cators (minimum of material (Material) con (A3) c	s: f one required Surface Yes	uired; che	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct or Stressee xplain in R es):	es (B13) Dodor (C1) Deres along ed Iron (C- tion in Tille d Plants (C	Living Room 4) d Soils (C6) 1) (LRR A)	RA tts (C3)	Secon Wi Dr Dr Sa Ge Sh FA	dary Indi ater-Stair 4A, and ainage P y-Seasor turation v comorphi allow Aq aC-Neutra ised Ant	cators (2 ned Leav I 4B) atterns (o Water Visible o c Positic uitard (D al Test (I Mounds e Humm	2 or more reverse (B9) (MI) (B10) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C5) (C6) (C6) (C7)	quired) _RA 1, 2 agery (C
PROLO POROLO POR	GY drology Indicator cators (minimum or water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria or Vegetated Conca vations: er Present? Present?	I Imagery ve Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; che (B7) ee (B8) No 🖾 No 🗆	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct or Stressed kplain in R es):	es (B13) Odor (C1) eres along ed Iron (C- cion in Tille d Plants (D- emarks)	Living Root 4) d Soils (C6) 1) (LRR A)	ts (C3)	Secon W: Dr Dr Sa Ge Sr FA	dary Indi ater-Stair 4A, and ainage P y-Seasor ituration v eomorphi allow Aq iC-Neutra ised Ant ost-Heave	cators (2 ned Leav I 4B) atterns (o Water Visible o c Positic uitard (D al Test (I Mounds e Humm	2 or more reverse (B9) (MI) (B10) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C5) (C6) (C6) (C7)	quired) _RA 1, 2 agery (C
TDROLO etland Hydimary India Surface Water Male Sedimen Drift Dep Algal Male Iron Dep Surface Water Table India Sparsely India Iron Dep Iron Dep	criterion observations: criterion observations: criterion observations: criterion observations cators (minimum observations) cators (minimum observations) criterion (A2) con (A3) criterion (A2) con (A3) criterion (A3	I Imagery ve Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; che (B7) ee (B8) No 🖾 No 🗆	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct or Reduct or Stressed kplain in R es):	es (B13) Odor (C1) eres along ed Iron (C- cion in Tille d Plants (D- emarks)	Living Root 4) d Soils (C6) 1) (LRR A)	ts (C3)	Secon W: Dr Dr Sa Ge Sr FA	dary Indi ater-Stair 4A, and ainage P y-Seasor ituration v eomorphi allow Aq iC-Neutra ised Ant ost-Heave	cators (2 ned Leav I 4B) atterns (o Water Visible o c Positic uitard (D al Test (I Mounds e Humm	2 or more reverse (B9) (MI) (B10) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C5) (C6) (C6) (C7)	quired) _RA 1, 2 agery (C
emarks: rdric soil DROLO etland Hydinary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely eld Obser attraction P	criterion observations: criterion observations: criterion observations: criterion observations cators (minimum observations) cators (minimum observations) criterion (A2) con (A3) criterion (A2) con (A3) criterion (A3	I Imagery ve Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; che (B7) ee (B8) No 🖾 No 🗆	eck all that ap Water-St 1, 2, 4 Salt Crus Aquatic I Hydroger Oxidized Presence Recent Ir Stunted o Other (Ex	ply) ained Leav 4A, and 4I at (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct or Reduct or Stressed kplain in R es):	es (B13) Odor (C1) eres along ed Iron (C- cion in Tille d Plants (D- emarks)	Living Root 4) d Soils (C6) 1) (LRR A)	ts (C3)	Secon W: Dr Dr Sa Ge Sr FA	dary Indi ater-Stair 4A, and ainage P y-Seasor ituration v eomorphi allow Aq iC-Neutra ised Ant ost-Heave	cators (2 ned Leav I 4B) atterns (o Water Visible o c Positic uitard (D al Test (I Mounds e Humm	2 or more reverse (B9) (MI) (B10) (B10) (Table (C2) (C2) (C2) (C3) (C3) (C3) (C5) (C6) (C6) (C7)	quired) _RA 1, 2 agery (C

Project/Site: 1655.0001 / Schoultes Property		City/Coun	_{ty:} Marysv	ville / Snohomish	Sampling Date: 06/20/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-50
				ownship, Range: 28, 31,	
Landform (hillslope, terrace, etc.): Valley Floor		Local reli	ef (concave,	, convex, none): None	Slope (%): 1
Subregion (LRR): A-2	_ _{Lat:} 48.	1391517	7776667	Long: -122.1666697	786833 Datum: WGS 84
Soil Map Unit Name: Norma loam				NWI classificat	
Are climatic / hydrologic conditions on the site typical for thi	s time of yea	ar? Yes 🗵	No □ (I	If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sig	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology nate	urally probler	matic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplir	ng point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☐ No 🗵			he Sampled		- N
Wetland Hydrology Present? Yes ☐ No 🗵		Witi	hin a Wetlar	nd? Yes ☐ No) X
Remarks:					
Not all three wetland criteria obs	erved, or	nly hydi	rophytic	vegetation present	•
VEGETATION – Use scientific names of plan	ıts.				
	Absolute		t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft)	% Cover			Number of Dominant Spo	
1. Betula papyrifera 2. Alnus rubra	75 5	Yes No	FAC FAC	That Are OBL, FACW, or	r FAC: <u>4</u> (A)
			FAC	Total Number of Domina	
3		-		Species Across All Strata	a: <u>4</u> (B)
4	80	- Total (201/05	Percent of Dominant Spe	
Sapling/Shrub Stratum (Plot size: 15 ft)		= Total (Jover	That Are OBL, FACW, or	r FAC: 100% (A/B)
1. Lonicera involucrata	25	Yes	FAC	Prevalence Index work	sheet:
2. Rubus armeniacus	20	Yes	FAC	Total % Cover of:	Multiply by:
3. Rubus laciniatus	5	No	FACU	OBL species	x 1 =
4.			· <u> </u>	FACW species	x 2 =
5				FAC species	x 3 =
	50	= Total (Cover	FACU species	x 4 =
Herb Stratum (Plot size: 5 ft)	85	Yes	ΕΛC		x 5 =
1. Ranunculus repens 2. Polystichum munitum	10	No	FACU	Column Totals:	(A) (B)
				Prevalence Index	= B/A =
3				Hydrophytic Vegetation	
4				Rapid Test for Hydro	
5 6				✓ Dominance Test is >	
7				☐ Prevalence Index is :	≤3.0¹
8					ations ¹ (Provide supporting
9.					or on a separate sheet)
10				Wetland Non-Vascul	
11					nytic Vegetation¹ (Explain)
	95	= Total (Cover	be present, unless distur	and wetland hydrology must bed or problematic.
Woody Vine Stratum (Plot size: 30 ft)					
1		-		Hydrophytic	
2	0	= Total (Cover	Vegetation Present? Yes	No □
% Bare Ground in Herb Stratum 5	<u> </u>			100	
Remarks: Hydrophytic vegetation criterion obser				inance test indicator	
1.17 a. op.117 tio vogotation ontonon obser	.ou unou	g., rapia	and donl	and tool indicator.	

Depth	cription: (Describ Matrix		·	Redo	ox Feature					,
(inches)	Color (moist)	%	Colc	or (moist)	%	Type ¹	Loc ²	Textur		<u>Remarks</u>
0 - 13	10YR 2/2	100	/					SaLo)	
13 - 16	5Y 5/2	97	10`	YR 5/8	3	C, CS	M	LoSa	а	Coarse grained
	-									·
			_							
										·
	-									·
	concentration, D=D						ed Sand G			cation: PL=Pore Lining, M=Matrix.
-	Indicators: (Appl	icable to				itea.)				ors for Problematic Hydric Soils ³ :
Histosol	• •			Sandy Redox (Ļ		n Muck (A10)
	oipedon (A2) istic (A3)			Stripped Matrix Loamy Mucky I	. ,	(1) (ovcont	MI DA 1	,		l Parent Material (TF2) y Shallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Gleyed			WILKA I	, L	-	er (Explain in Remarks)
	d Below Dark Surfa	ce (A11)		Depleted Matrix		-,		<u>L</u>	, Out	or (Explain in Nomano)
	ark Surface (A12)	(, (, , , ,		Redox Dark Su)		³ lı	ndicate	ors of hydrophytic vegetation and
	/lucky Mineral (S1)			Depleted Dark	•	,				and hydrology must be present,
☐ Sandy 0	Gleyed Matrix (S4)			Redox Depress	ions (F8)	,				ss disturbed or problematic.
Restrictive	Layer (if present)	:								
Type:				_						
Depth (ir	iches):							Hydri	ic Soi	l Present? Yes □ No ⊠
Remarks:										
HYDROLO	ncv									
-	drology Indicator								_	
	cators (minimum o	f one requ	ired; ch							ndary Indicators (2 or more required)
Surface				☐ Water-Sta			xcept ML	RA	Шν	Vater-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)				A, and 4E	3)				4A, and 4B)
☐ Saturati	,			☐ Salt Crust	` '					Orainage Patterns (B10)
	larks (B1)			☐ Aquatic In		` '				Ory-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen						saturation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized F		_	_	ots (C3)		Geomorphic Position (D2)
	at or Crust (B4)			Presence		-	•	۵)		Shallow Aquitard (D3)
-	oosits (B5)			☐ Recent Iro			,	,		AC-Neutral Test (D5)
	Soil Cracks (B6)	l lma = =: - ::	(D7)	Stunted or		•	1) (LKR A	A)		Raised Ant Mounds (D6) (LRR A)
	on Visible on Aeria			☐ Other (Exp	piain in Re	еттагкѕ)			⊔ ⊦	rost-Heave Hummocks (D7)
	y Vegetated Conca	ve Surrac	e (B8)				1			
Field Obse		·		5 " " 1	`					
	ter Present?		No 🔀	Depth (inche	•					
Water Table	Present?		No 🗵	Depth (inche		,				
Saturation F		Yes 🗌	No 🗵	Depth (inche	s):		Wet	tland Hyd	irolog	yy Present? Yes □ No ⊠
	pillary fringe) ecorded Data (strea	ım gauge.	monitor	ing well. aerial	photos. n	revious ins	pections)	, if availa	ble:	
	(- 1. 33	590,		J .,			,	,	-	
Remarks:										
	d hydrology inc	licatore	ohserv	red						
. to would!	a riyarology ilic		COOCIV	ou.						

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

Project/Site: 1655.0001 / Schoultes	3 Property		City/Cou	_{nty:} Marysv	rille / Snohomish	Sampling Date: 06/20/2018
Applicant/Owner: Columbia Bank / F	Rob Draper				State: WA	Sampling Point: DP-51
Investigator(s): Emily Swaim, Richa					ownship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valle	y Floor		Local re	elief (concave,	convex, none): Concav	<u>/e</u> Slope (%): 0
Subregion (LRR): A-2		Lat: 48.	141019	93538333	Long: -122.1658478	383333 Datum: WGS 84
Soil Map Unit Name: Custer fine san	dy loam				NWI classifica	tion: None
Are climatic / hydrologic conditions on the	e site typical for this	time of yea	r? Yes	× No ☐ (I	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hyd	drology sigr	ificantly dis	turbed?	Are "No	ormal Circumstances" pres	sent? Yes ⊠ No 🗌
Are Vegetation, Soil, or Hyd	drology natu	rally probler	natic?	(If neede	ed, explain any answers ir	n Remarks.)
SUMMARY OF FINDINGS - At	tach site map s	showing	sampli	ing point lo	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes ☒ No ☐					
Hydric Soil Present?	Yes ⊠ No □			the Sampled		_
Wetland Hydrology Present?	Yes ເ≝ No 🗆		wi	ithin a Wetlar	nd? Yes ເເ N	o 📙
Remarks:						
Wetland E plot. All	three wetland	criteria	observ	ved.		
\(\(\)						
VEGETATION – Use scientific	names of plant				· · · · ·	
Tree Stratum (Plot size: 30 ft)				int Indicator s? <u>Status</u>	Dominance Test works	
1					Number of Dominant Sp That Are OBL, FACW, o	
2					Total Number of Domina	ant
3					Species Across All Strat	_
4					Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15 ft	<u>t</u>)	0	= I otal	Cover	That Are OBL, FACW, o	or FAC: <u>100%</u> (A/B)
1					Prevalence Index work	sheet:
2				_	Total % Cover of:	Multiply by:
3						x 1 =
4						x 2 =
5						x 3 =
Herb Stratum (Plot size: 5 ft)		0	= Total	Cover		x 4 =
1. Holcus lanatus		25	Yes	FAC		x 5 =
2. Juncus bufonius		10	Yes	FACW	Column Totals:	(A) (B)
3. Grass short not hairy		5	No	FAC	Prevalence Index	= B/A =
4. Trifolium repens		5	No	FAC	Hydrophytic Vegetatio	n Indicators:
5. Epilobium ciliatum		5	No	FACW	☐ Rapid Test for Hydro	ophytic Vegetation
6. Gnaphalium uliginosum		5	No	FAC	■ Dominance Test is >	> 50%
7					☐ Prevalence Index is	≤3.0 ¹
8						tations¹ (Provide supporting or on a separate sheet)
9					☐ Wetland Non-Vascu	,
10					_	hytic Vegetation¹ (Explain)
11		55				and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)		55	= Total	Cover	be present, unless distu	rbed or problematic.
1					Lludronburti -	
2					Hydrophytic Vegetation	
0/ Para Craus dis Usah Ottaka 45		0	= Total	Cover		s⊠ No □
% Bare Ground in Herb Stratum 45 Remarks:						
Hydrophytic vegetation	criterion observ	ed throug	gh dom	inance test	t indicator.	

Depth (inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 9	10YR 3/1	95		YR 2.5/4	5	C	PL, M	SaLo	Remarks
9 - 14	5Y 5/2	55 95	5/8		_ 5	C, CS	<u>M</u>	SaLo	Fine sand less coarse
0 17	01 0/2			<u>, </u>				Oulo	1 1110 34114 1033 004130
	-								_
									_
Typo: C=C	oncentration, D=D	onlotion [ucod Matrix C	S=Cover	od or Coate	d Sand G	raine 21	ocation: PL=Pore Lining, M=Matrix.
	Indicators: (Appl						u Sanu Gi		itors for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox (,			cm Muck (A10)
	pipedon (A2)			Stripped Matrix					ed Parent Material (TF2)
Black Hi				oamy Mucky I	Nineral (F	1) (except	MLRA 1)		ery Shallow Dark Surface (TF12)
	n Sulfide (A4)			oamy Gleyed	-	2)		☐ Ot	her (Explain in Remarks)
•	d Below Dark Surfa	ace (A11)		Depleted Matrix	. ,			0	
	ark Surface (A12)			Redox Dark Su	`	,			ators of hydrophytic vegetation and
-	lucky Mineral (S1) Bleyed Matrix (S4)			Depleted Dark Redox Depress					tland hydrology must be present, ess disturbed or problematic.
	Layer (if present)	•	<u> </u>	tedox Depress	510113 (1 0)	1		1	ess disturbed of problematic.
Type:	Layer (precent)								
								Hydric Sc	oil Present? Yes ⊠ No □
Dopui (iii	ches):								
Remarks:	criterion obser			11, F3, & F6	6 indica	tors.		Tiyano ox	
Remarks: lydric soil	criterion obser	ved thro		11, F3, & F6	3 indica	tors.		T Tyulio OX	
Remarks: lydric soil YDROLO Wetland Hy	criterion obser	ved thro	ough A			tors.			
Remarks: lydric soil YDROLO Vetland Hy Primary Indi	criterion obser	ved thro	ough A	eck all that app	oly)			Sec	condary Indicators (2 or more required)
Remarks: lydric soil YDROLO Wetland Hy Primary Indi Surface	criterion obser	ved thro	ough A	eck all that app □ Water-Sta	oly) nined Lea	ves (B9) (e .	xcept MLF	Sec	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Remarks: lydric soil YDROLO Vetland Hy Primary Indi Surface High Wa	criterion obser	ved thro	ough A	eck all that app Water-Sta 1, 2, 4	oly) nined Lea A, and 4	ves (B9) (e .	xcept MLF	Sec	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
YDROLO YDROLO Vetland Hy Surface High Wa Saturatio	criterion obser	ved thro	ough A	eck all that app Water-Sta 1, 2, 4	oly) nined Lea A, and 4 l	ves (B9) (e :	xcept MLF	Sec	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
YDROLO YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M	criterion obser	ved thro	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In	oly) nined Lear A, and 4l (B11) vertebrat	ves (B9) (e . B) es (B13)	xcept MLF	Sec	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLO Yetland Hy Primary India Surface High Wa Saturatia Water M Sedimer	criterion obser GY drology Indicator cators (minimum o Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2)	ved thro	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	oly) nined Lea A, and 4 (B11) vertebrat Sulfide C	ves (B9) (e . B) es (B13) odor (C1)	·	Sec	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
YDROLO YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	criterion obser GY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)	ved thro	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F	oly) nined Lear A, and 4l (B11) vertebrat Sulfide C Rhizospho	ves (B9) (e. B) es (B13) Odor (C1) eres along	Living Roo	Sec RA	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
YDROLO Yetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	criterion obser GY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)	ved thro	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	oly) ained Lear A, and 4l (B11) overtebrate Sulfide C Rhizospho of Reduc	ves (B9) (e: B) es (B13) Odor (C1) eres along ed Iron (C4	Living Roo	Sec RA ts (C3) ts (C3)	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
YDROLO Vetland Hy Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	criterion obser GY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)	ved thro	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	oly) nined Lea A, and 4 (B11) overtebrate Sulfide C Rhizospho of Reduct	ves (B9) (e: B) es (B13) Odor (C1) eres along ed Iron (C4	Living Roo) d Soils (C6	Sec RA ts (C3) ts (C3)	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
YDROLO YDROLO Vetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep K Algal Ma	criterion observation observation observation observation observation of the cators (minimum of the cators (minimu	s: f one requ	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	oly) ained Lear A, and 4l (B11) evertebrate Sulfide Celhizosphe of Reduct r Stressed	ves (B9) (example) es (B13) Odor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D	Living Roo) d Soils (C6	Sector Se	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLO YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	criterion observation observation observation observation observation of the cators (minimum of the cators (minimu	s: f one requ	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	oly) ained Lear A, and 4l (B11) evertebrate Sulfide Celhizosphe of Reduct r Stressed	ves (B9) (example) es (B13) Odor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D	Living Roo) d Soils (C6	Sector Se	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Surface Inundatio	criterion observation observation observation observation observation of the control of the cont	s: f one requ	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	oly) ained Lear A, and 4l (B11) evertebrate Sulfide Celhizosphe of Reduct r Stressed	ves (B9) (example) es (B13) Odor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D	Living Roo) d Soils (C6	Sector Se	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	criterion observation observation observation observation observation of the control of the cont	s: f one requ	ough A	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	oly) sined Lear A, and 4l (B11) evertebrate Sulfide C Rhizosphe of Reduce on Reduce r Stressed	ves (B9) (example) es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D emarks)	Living Roo) d Soils (C6	Sector Se	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLO YDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser	criterion observations: criterion observations: criterion observations criterion observations criterion observations criterion observations criterion observations criterion observations criterion observation criterion ob	s: f one requ I Imagery	uired; che	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or	oly) ained Lear A, and 4l (B11) errebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in R	ves (B9) (example) es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D emarks)	Living Roo) d Soils (C6	Sector Se	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Surface Inundatio Sparsely Field Obser Gurface Water Table Saturation P	criterion observations: criterion observations: criterion observations: criterion observations deformation of the criterion observations criterion observations deformation observations criterion observations deformation observation deformation ob	s: f one require Surface Yes	(B7) e (B8)	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	oly) ained Lear A, and 4l (B11) vertebrate Sulfide C Rhizosphe of Reduct on Reduct or Stressed plain in R	ves (B9) (example of the set of t	Living Roo .) d Soils (C6 1) (LRR A)	ts (C3)	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturatia Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely Field Obser Surface Water Table Saturation Penincludes ca	criterion observations: criterion observations: criterion observations criterion observation crite	I Imagery ve Surfac Yes Yes Yes Yes Yes Yes Yes	(B7) e (B8) No 🔀 No 🔀	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	oly) ained Lear A, and 4l (B11) vertebrat Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R	ves (B9) (example) es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D emarks)	Living Roo Soils (C6 Control (C6) Control (C	ts (C3) 🗷	Condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLO YDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P includes ca Describe Re	criterion observations: criterion observations: criterion observations: criterion observations criterion observations criterion observations criterion observations criterion observations criterion observation criterion o	I Imagery ve Surfac Yes Yes Yes Yes Yes Yes Yes	(B7) e (B8) No 🔀 No 🔀	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	oly) ained Lear A, and 4l (B11) vertebrat Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R	ves (B9) (example) es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D emarks)	Living Roo Soils (C6 Control (C6) Control (C	ts (C3) 🗷	Condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Surface Inundatio Sparsely Field Obser Surface Water Table Saturation P includes ca Describe Re	criterion observations: criterion observations: criterion observations: criterion observations cators (minimum observations) cators (minimum observations) criterion (A2) con (A3) criterion (A3) criteri	I Imagery ve Surfac Yes Yes Yes Yes am gauge,	(B7) e (B8) No 🗵 No 🗵 monitori	eck all that app Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	oly) ained Lear A, and 4l (B11) vertebrat Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R	ves (B9) (example) es (B13) Dodor (C1) eres along ed Iron (C4 tion in Tilled d Plants (D emarks) previous ins	Living Roo Soils (C6 Control (C6) Wetlespections),	sector Se	Condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

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

Project/Site: 1655.0001 / Schoultes Property		City/C	county	. Marysv	rille / Snohomish	Sampling Date: 06/20/2	2018
-		-	-			Sampling Point: DP-52	
• •					ownship, Range: 28, 31,	· -	
Landform (hillslope, terrace, etc.): Hillslope							2
Subregion (LRR): A-2					·		
Soil Map Unit Name: Custer fine sandy loam					NWI classifica		
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil , or Hydrology sign	-			•	ormal Circumstances" pres		
Are Vegetation, Soil, or Hydrology natu					ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map				•		•	, etc.
Lhydranhydia Vagatetian Drasant?							
Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒			Is th	e Sampled	l Area		
Wetland Hydrology Present? Yes ☐ No ☒			with	in a Wetlar	nd? Yes □ N	lo 🗵	
Remarks:							
Not all three wetland criteria obs	erved, or	nly h	ydr	ophytic	vegetation present	t; tilled active - Dry	7
VEGETATION – Use scientific names of plan	ts.						
T 0	Absolute				Dominance Test works	sheet:	
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dominant Sp That Are OBL, FACW, o		(A)
2					Total Number of Domina	ant	
3					Species Across All Stra	ta: <u>2</u> (E	3)
4	0	= To	otal C	over	Percent of Dominant Sp That Are OBL, FACW, o		۸/R۱
Sapling/Shrub Stratum (Plot size: 15 ft)					That Are OBE, I ACW, C	717AC. 10070 (F	(۵۱۰
1					Prevalence Index work		
2						Multiply by:	
3						x 1 =	
4						x 2 =	
5	_				*	x 3 =	
Herb Stratum (Plot size: 5 ft)	0	_ = To	otal C	over		x 4 =	
1. Equisetum arvense	15	Ye	s	FAC		x 5 =	
2. Holcus lanatus	10	Ye		FAC	Column Totals:	(A)	(B)
3.					Prevalence Index	= B/A =	
4. Trifolium repens	5	No	1	FAC	Hydrophytic Vegetatio		
5. Gnaphalium uliginosum	5	No		FAC	☐ Rapid Test for Hydro	ophytic Vegetation	
6. Long slender flat glass thick leaves	5	No		FAC	■ Dominance Test is a part of the par	>50%	
7. Epilobium ciliatum	5	No		FACW	☐ Prevalence Index is	≤3.0 ¹	
8.						tations ¹ (Provide supporting	ıg
9						s or on a separate sheet)	
10					☐ Wetland Non-Vascu		
11					_ , ,	hytic Vegetation¹ (Explain)	
Woody Vine Stratum (Plot size: 30 ft)	45	= To	otal C	over	be present, unless distu	l and wetland hydrology mu irbed or problematic.	ıst
1					Hydrophytic		
2					Vegetation		
% Bare Ground in Herb Stratum 55	0	_ = To	otal C	over	Present? Yes	s 🗵 No 🗌	
	1.4						
Remarks: Hydrophytic vegetation criterion obser	ved throu	gn do	omin	ance test	t indicator; 50% moss	3	

Sampling Point: DP-52

Depth inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Texture	Remarks
) - 12	10YR 3/3	97		YR 3/4	3	С	PL, M	SaLo	<u> </u>
12 - 16	2.5YR 4/3	90		R 4/6	10	C, CS	M	Sand	Coarse- relict redox no halo effect
2 - 10	2.511(4/5	_ 30		1 4/0			101	Janu	- Coarse Tellet Tedex No Halo check
	·								
									_
	Concentration, D=D						ed Sand Gr		ocation: PL=Pore Lining, M=Matrix.
	Indicators: (App	licable to				itea.)			tors for Problematic Hydric Soils ³ :
] Histosol] Histic E	oipedon (A2)			Sandy Redox (Stripped Matrix					cm Muck (A10) ed Parent Material (TF2)
	istic (A3)			_oamy Mucky l	` '	1) (except	MLRA 1)		ery Shallow Dark Surface (TF12)
	en Sulfide (A4)			_oamy Gleyed			,		her (Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Depleted Matri		-,			(=:4::)
	ark Surface (A12)	, ,		Redox Dark Sι	. ,)		³ Indica	ators of hydrophytic vegetation and
	lucky Mineral (S1)			Depleted Dark	Surface (F7)		we	tland hydrology must be present,
-	Bleyed Matrix (S4)		□ F	Redox Depress	sions (F8)			unl	ess disturbed or problematic.
	Layer (if present)	:							
Type:				_					
Depth (ir	iches):							Hvdric Sc	oil Present? Yes □ No 🗵
hydric	soils indicators	observe	ed.						
o hydric	OGY		ed.						
DROLC	OGY rdrology Indicator	's:		eck all that app	oly)				condary Indicators (2 or more required)
O hydric OROLO Vetland Hy rimary Indi	OGY rdrology Indicator cators (minimum o	's:				/es (B9) (e	xcept MLR	Sec	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1. 2
D hydric DROLO Vetland Hy rimary Indi Surface	OGY rdrology Indicator cators (minimum o Water (A1)	's:		☐ Water-Sta		. , .	xcept MLF	Sec	
D hydric TDROLC Tetland Hyrimary Indi Surface High Wa	ogy rdrology Indicator cators (minimum o Water (A1) ater Table (A2)	's:		☐ Water-Sta	ained Leav A, and 4	. , .	kcept MLF	Sec	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
TDROLC Tetland Hyrimary India Surface High Wa Saturati	ogy rdrology Indicator cators (minimum o Water (A1) ater Table (A2)	's:		☐ Water-Sta	ained Leav A, and 4I (B11)	3)	kcept MLF	Sec	Water-Stained Leaves (B9) (MLRA 1, 2
TDROLO Tetland Hyrimary Indi Surface High Wa Saturati Water M	ody rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	's:		☐ Water-Sta 1, 2, 4 ☐ Salt Crust	nined Leav A, and 4I (B11) overtebrate	3) es (B13)	xcept MLR	Sec	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
TDROLO Tetland Hyrimary Indi Surface High Wa Saturati Water M Sedimen	ody rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)	's:		☐ Water-Sta 1, 2, 4 ☐ Salt Crust ☐ Aquatic In	ained Leav A, and 4I (B11) avertebrate Sulfide C	es (B13) Odor (C1)		Sec	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
TDROLO Tetland Hyrimary India Surface High Wa Saturati Water M Sedimen Drift De	ody adrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2)	's:		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	nined Leaver AA, and 4I (B11) avertebrate Sulfide C	es (B13) Odor (C1) eres along	Living Roo	Sec RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS
TDROLC etland Hy rimary Indi Surface High Wa Saturati Water M Sedimer Drift De Algal Ma	order variable (A2) on (A3) larks (B1) on the Deposits (B2) on (B3)	's:		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I	ained Leav A, and 4I (B11) avertebrate Sulfide C Rhizosphe of Reduc	es (B13) odor (C1) eres along ed Iron (C4	Living Roo	Sec RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2)
TDROLO Tetland Hyrimary Indi Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep	order various functions of the control of the contr	's:		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	ained Leav A, and 4I (B11) evertebrate Sulfide C Rhizosphe of Reduct	es (B13) odor (C1) eres along ed Iron (C4	Living Roo) I Soils (C6	Sec RA ts (C3) to (C3	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
TDROLO Tetland Hyrimary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati	ody rdrology Indicator cators (minimum of the cators (minimum of th	rs: f one requ	uired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	ained Leav A, and 4I (B11) overtebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed	es (B13) bdor (C1) eres along ed Iron (C4) ion in Tilled d Plants (D	Living Roo) I Soils (C6	Sec RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
/DROLO /etland Hy rimary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati	ody rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	rs: f one requ	uired; che	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro Stunted o	ained Leav A, and 4I (B11) overtebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed	es (B13) bdor (C1) eres along ed Iron (C4) ion in Tilled d Plants (D	Living Roo) I Soils (C6	Sec RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
TDROLO Tetland Hy Timary Indi Surface High Wa Saturati Water M Sedimen Drift De Algal Ma Iron Dep Surface Inundati Sparsel	order variable (A2) on (A3) larks (B1) on the Deposits (B2) on the County (B4) on the County (B4) on the County (B4) on the County (B4) on the County (B5) on the County (B5) on the County (B6) on the Cou	rs: f one requ	uired; che	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro Stunted o	ained Leav A, and 4I (B11) overtebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed	es (B13) bdor (C1) eres along ed Iron (C4) ion in Tilled d Plants (D	Living Roo) I Soils (C6	Sec RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
POROLO Petland Hy rimary Indi Surface High Wa Saturati Water M Sedimen Drift De Algal Ma Iron Dep Surface Inundati Sparsel eld Observation	order variable (A2) on (A3) larks (B1) on the Deposits (B2) on the County (B4) on the County (B4) on the County (B4) on the County (B4) on the County (B5) on the County (B5) on the County (B6) on the Cou	rs: f one requ	uired; che	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro Stunted o	ained Leav A, and 4I (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D emarks)	Living Roo) I Soils (C6	Sec RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
/DROLO /etland Hy rimary Indi Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely ield Observation	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Section (B2) coosits (B3) at or Crust (B4) coosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations:	rs: f one requ il Imagery ve Surfac	uired; che (B7) e (B8)	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	ained Leav A, and 4I (B11) evertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) bdor (C1) eres along ed Iron (C4 ion in Tilled d Plants (D emarks)	Living Roo) I Soils (C6	Sec RA	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Vetland Hy rimary Indi Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Surface Inundati Sparsely ield Obsel	drology Indicator cators (minimum of water (A1) ater Table (A2) on (A3) ater Table (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present?	f one requ Il Imagery ve Surfac	uired; che (B7) e (B8)	Water-Start, 2, 4 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized In Presence Recent Inc Stunted o Other (Ex	ained Leaven, and 41 (B11) avertebrate Sulfide Con Reduction Reduc	es (B13) odor (C1) eres along ed Iron (C4) ion in Tilled d Plants (D emarks)	Living Roo) I Soils (C6 1) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
/DROLO /etland Hy rimary Indi Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Surface Inundati Sparsely ield Observation Faceludes ca	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? Present? pillary fringe)	f one required in the second of the second o	(B7) e (B8) No 🔀 No 🔀	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex Depth (inched Dept	eined Leaver A, and 4H (B11) evertebrate Sulfide Con Reduct on Reduct or Stressed plain in Research (B1):	es (B13) bdor (C1) eres along ed Iron (C4 ion in Tilled d Plants (D emarks)	Living Roo) d Soils (C6 1) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
/DROLO /etland Hy rimary Indi Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Surface Inundati Sparsely ield Obsel aturation Fincludes ca	drology Indicator cators (minimum of water (A1) ater Table (A2) on (A3) ater Table (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present?	f one required in the second of the second o	(B7) e (B8) No 🔀 No 🔀	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex Depth (inched Dept	eined Leaver A, and 4H (B11) evertebrate Sulfide Con Reduct on Reduct or Stressed plain in Research (B1):	es (B13) bdor (C1) eres along ed Iron (C4 ion in Tilled d Plants (D emarks)	Living Roo) d Soils (C6 1) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
/DROLO /etland Hy rimary Indi Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Surface Inundati Sparsely ield Obselurface Wa /ater Table aturation Fedudes ca	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? Present? pillary fringe)	f one required in the second of the second o	(B7) e (B8) No 🔀 No 🔀	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex Depth (inched Dept	eined Leaver A, and 4H (B11) evertebrate Sulfide Con Reduct on Reduct or Stressed plain in Research (B1):	es (B13) bdor (C1) eres along ed Iron (C4 ion in Tilled d Plants (D emarks)	Living Roo) d Soils (C6 1) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Property of the property of th	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? Present? pillary fringe)	f one required in the second of the second o	(B7) e (B8) No 🗵 No 🗵 monitor	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex Depth (incher Depth (incher Depth (incher Depth (aerial	eined Leaver A, and 4H (B11) evertebrate Sulfide Con Reduct on Reduct or Stressed plain in Research (B1):	es (B13) bdor (C1) eres along ed Iron (C4 ion in Tilled d Plants (D emarks)	Living Roo) d Soils (C6 1) (LRR A)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

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

Project/Site: 1655.0001 / Schoultes Property	(City/Co	ounty:	Marysv	ille / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Sampling Point: DP-6
					wnship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief	(concave,	convex, none): Concav	e Slope (%): 0
Subregion (LRR): A-2	_ Lat: 48.	13918	85		Long: -122.163447	58 Datum: WGS 84
Soil Map Unit Name: Norma Ioam					NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this					f no, explain in Remarks.)	
Are Vegetation $\underline{\hspace{0.1cm} \hspace{0.1cm} $	nificantly disf	turbed	?	Are "No	ormal Circumstances" pres	ent? Yes 🗷 No 🗌
Are Vegetation, Soil, or Hydrology natu	rally probler	natic?		(If neede	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	oling	point lo	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No 🗵						
Hydric Soil Present? Yes ☐ No 🗵				Sampled		
Wetland Hydrology Present? Yes ☐ No 🗵			withir	n a Wetlan	ıd? Yes ☐ N) <u>X</u>
Remarks:						
No wetland criteria observed. Nor	ı-wetland	d hyc	irolo	gy con	firmed by groundw	ater monitoring study.
VEGETATION – Use scientific names of plan	ts.					
	Absolute				Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover				Number of Dominant Sp That Are OBL, FACW, o	
2					Total Number of Domina	_
3					Species Across All Strat	a: <u>2</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft)	0			ver	Percent of Dominant Sp That Are OBL, FACW, o	
1					Prevalence Index work	sheet:
2					Total % Cover of:	
3						x 1 = <u>0</u>
4						x 2 = 0
5						x 3 = <u>15</u>
Harl Otrature (Distains 5 ft)	0	= Tot	tal Co	ver		x 4 = <u>20</u>
Herb Stratum (Plot size: <u>5 ft)</u> 1. Trifolium pratense	5	Yes		FACU	UPL species 0	x 5 = 0
2 Agrostis capillaris	5	Yes		FAC	Column Totals: 10	(A) <u>35</u> (B)
3					Prevalence Index	= B/A = <u>3.5</u>
4					Hydrophytic Vegetatio	n Indicators:
5					☐ Rapid Test for Hydro	phytic Vegetation
6.					☐ Dominance Test is >	·50%
7.					☐ Prevalence Index is	≤3.0 ¹
8.						tations ¹ (Provide supporting
9					data in Remarks ☐ Wetland Non-Vascu	or on a separate sheet)
10					_	nytic Vegetation¹ (Explain)
11	40	-			-	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	10	= Tot	tal Co	ver	be present, unless distu	
1					Hydrophytic	
2	0	_ Tai	tal Co	wor	Vegetation Present? Yes	. □ No⊠
% Bare Ground in Herb Stratum 90	<u> </u>	- 10	ıaı CO	vei	11030111: 165	
Remarks: No hydrophytic vegetation indicators o	bserved					

Sampling Point: DP-6

Depth	Matrix	<u>.</u> %	Colo		dox Featu		1.002	Toyeture	_		Domo	rleo.
(<u>inches)</u> 0 - 9	2.5y 3/2	99		or (moist) 3/4	<u> </u>	Type ¹	Loc ² PL, M	SaLo			Rema	<u>rks</u>
			_ <u> </u>									
9 - 16	2.5y 3/3	95	_ <u> </u>	3/4	5	_ <u>C</u>	PL, M	SaCI				
16 - 30	2.5y 4/2	99	<u>7.5</u>	yr 4/4	1	CS		LoSa	1			
												
	_				· · · · · · · · · · · · · · · · · · ·		-					
	Concentration, D=D						ed Sand Gr					ning, M=Matrix.
-	Indicators: (App	licable to				otea.)						: Hydric Soils ³
Histosol	, ,			Sandy Redox						Muck (A	•	-0)
	pipedon (A2) istic (A3)			Stripped Matı ₋oamy Muck <u>y</u>	. ,	F1) (excen	t MI RA 1)				aterial (TF Dark Surf	-2) ace (TF12)
	en Sulfide (A4)			_oamy Gleye			(WILIXA I)		-		in Rema	
	d Below Dark Surfa	ace (A11)		Depleted Mat		_)			Othio	(Explain	i iii rtoiria	110)
	ark Surface (A12)	,		Redox Dark S		3)		³ In	dicato	rs of hydr	ophytic v	egetation and
_	Mucky Mineral (S1)			Depleted Dar	•	•				-		be present,
] Sandy G	Gleyed Matrix (S4)		□ F	Redox Depre	ssions (F8	3)			unless	s disturbe	d or prob	lematic.
estrictive	Layer (if present)	:										
Type:												
Depth (in	nches):							Hydri	c Soil	Present?	Yes [□ No ⊠
emarks:												
o hydric	soils indicators	observ	ed.									
/DROLO	OGY		ed.									
DROLO	OGY ydrology Indicator	rs:							0			
YDROLO Vetland Hy Primary Indi	OGY ydrology Indicator icators (minimum c	rs:				(00)		_				or more require
YDROLO Vetland Hy rimary Indi	OGY ydrology Indicator icators (minimum c Water (A1)	rs:		☐ Water-S	tained Lea		except MLF	_		ater-Stain	ed Leave	or more require
/DROLO /etland Hy rimary Indi Surface High Wa	OGY ydrology Indicator icators (minimum o Water (A1) ater Table (A2)	rs:		☐ Water-S 1, 2,	tained Lea		except MLR	_	☐ Wa	ater-Stair	ed Leave	s (B9) (MLRA
/DROLO /etland Hy rimary Indi] Surface I High Wa	OGY ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3)	rs:		☐ Water-S 1, 2, ☐ Salt Cru	tained Lea 4A, and 4 st (B11)	lB)	except MLR	RA	☐ Wa	ater-Stair 4A, and ainage Pa	ed Leave 4 B) atterns (B	es (B9) (MLRA 10)
PROLO Petland Hy rimary Indi Surface High Wa Saturatic Water M	ody ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1)	rs:		☐ Water-S 1, 2, ☐ Salt Cru ☐ Aquatic	tained Lea 4A, and 4 st (B11) Invertebra	tes (B13)	except MLF	RA	☐ Wa	ater-Stair 4A, and ainage Pay-Seasor	ned Leave 1 4B) atterns (B 1 Water Ta	ns (B9) (MLRA 10) able (C2)
/DROLO /etland Hy rimary Indi] Surface [High Wa] Saturatic] Water M] Sedimer	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)	rs:		☐ Water-S 1, 2, ☐ Salt Cru ☐ Aquatic ☐ Hydroge	tained Lea 4A, and 4 st (B11) Invertebraten Sulfide (tes (B13) Odor (C1)		RA	☐ Wa	ater-Stair 4A, and ainage Pay-Seasor turation \	ed Leave 4 B) atterns (B Water Ta /isible on	ns (B9) (MLRA 10) able (C2) Aerial Imagery
/DROLO /etland Hy rimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	or ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)	rs:		Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph	tes (B13) Odor (C1) neres along	Living Roo	RA	☐ Wa	ater-Stair 4A, and ainage Pay-Seasor turation \	atterns (B Water Ta /isible on Position	10) able (C2) Aerial Imagery (D2)
/DROLO /etland Hy rimary Indi] Surface] High Wa] Saturatio] Water M] Sedimer] Drift Dep] Algal Ma	pogy ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	rs:		Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I Rhizosph e of Reduc	tes (B13) Odor (C1) heres along ced Iron (C	Living Roo 4)	RA	☐ Wa	ater-Stair 4A, and ainage Pay-Seasor turation \ comorphic	ned Leave 4B) atterns (B water Tale visible on c Position uitard (D3	10) able (C2) Aerial Imagery (D2)
/DROLO /etland Hy rimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	rs:		Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend	tained Lea 4A, and 4 st (B11) Invertebrate n Sulfide (I Rhizosph e of Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (C	Living Roo 4) d Soils (C6	RA ts (C3)	☐ Wa	ater-Stain 4A, and ainage Pay-Season turation \ comorphic allow Aqu C-Neutra	ned Leave 4B) atterns (B water Ta /isible on c Position uitard (D3	10) able (C2) Aerial Imagery (D2)
/DROLO /etland Hy rimary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	pody vdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	rs: one requ	uired; che	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent	tained Lea 4A, and 4 st (B11) Invertebrate on Sulfide (I Rhizosph e of Reduction Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4)	RA ts (C3)	Dr. Dr. Sa Ge Sh Ra	ater-Stair 4A, and ainage Pay-Seasor turation \ comorphic allow Aqu C-Neutra ised Ant	ned Leave 4 B) atterns (B Water Ta /isible on c Position uitard (D3 al Test (D5 Mounds (10) able (C2) Aerial Imagery (D2)) 5) D6) (LRR A)
/DROLO /etland Hy rimary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	pdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria	rs: one requ	uired; che	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent	tained Lea 4A, and 4 st (B11) Invertebrate n Sulfide (I Rhizosph e of Reduction Reduction	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Dr. Dr. Sa Ge Sh Ra	ater-Stair 4A, and ainage Pay-Seasor turation \ comorphic allow Aqu C-Neutra ised Ant	ned Leave 4B) atterns (B water Ta /isible on c Position uitard (D3	10) able (C2) Aerial Imagery (D2)) 5) D6) (LRR A)
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YDROLO Vetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Water Table Staturation P	pody verology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B3) at or Crust (B4) posits (B5) as oil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Present?	rs: If one required in the second in the se	uired; che (B7) ce (B8) No ⊠	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrate on Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse explain in F	tes (B13) Odor (C1) neres along ced Iron (Cction in Tille dd Plants (D	Living Roo 4) d Soils (C6 01) (LRR A)	RA (C3)	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Ge ☐ Sh ☐ FA	ater-Stair 4A, and ainage Pay-Seasor turation Veromorphic allow Aqi C-Neutra ised Ant ost-Heave	ned Leave 4 B) atterns (B Water Ta /isible on c Position uitard (D3 al Test (D5 Mounds (10) able (C2) Aerial Imagery (D2) 5) D6) (LRR A) cks (D7)
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YDROLO Vetland Hy Trimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely ield Obser surface Water Table saturation P ncludes ca	pody verology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Present? a Present? Present? apillary fringe)	rs: of one required in the second in the s	uired; che (B7) ce (B8) No 🔀 No 🗆	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrate on Sulfide (I Rhizosph e of Reduct or Reduct or Stresse explain in Fines): 10 nes): 10 nes): 6	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roo 4) d Soils (C6 01) (LRR A)	ts (C3)	☐ Wa ☐ Dra ☐ Dra ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ Fa	ater-Stair 4A, and ainage Pay-Seasor turation Veromorphic allow Aqi C-Neutra ised Ant ost-Heave	ned Leave (4B) atterns (B water Tale visible on c Position uitard (D3 al Test (D3 Mounds (e Hummo	10) able (C2) Aerial Imagery (D2) 5) D6) (LRR A) cks (D7)
/DROLO /etland Hy rimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely ield Obser urface Wat /ater Table aturation Pencludes ca escribe Re	pody icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Present? Present? Present? apillary fringe) ecorded Data (streams)	rs: If one required the requirement of the require	uired; che (B7) ce (B8) No 🖾 No 🗆 , monitor	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebrate In Sulfide (In Rhizosph Invertebrate In Sulfide (In Rhizosph Invertebrate In Sulfide (In Rhizosph In Reduct In	tes (B13) Odor (C1) neres along ced Iron (C ction in Tille d Plants (C Remarks)	Living Roo 4) d Soils (C6 01) (LRR A) Weth	ets (C3) and Hyd if availab	Draw Draw Draw Draw Draw Draw Draw Draw	ater-Stair 4A, and ainage Pay-Season turation \ eomorphic allow Aqi C-Neutra ised Ant bost-Heave	atterns (B atterns (B water Ta /isible on c Position uitard (D3 al Test (D3 Mounds (e Hummo	s (B9) (MLRA 10) able (C2) Aerial Imagery (D2) b) b) b) cks (D7)
TDROLO etland Hy imary Indi] Surface] High Wa] Saturatic] Water M] Sedimer] Drift Dep] Algal Ma] Iron Dep] Surface] Inundatic] Sparsely eld Obser urface Wat ater Table aturation P ncludes ca escribe Re	pody verology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Present? a Present? Present? apillary fringe)	rs: If one required one requir	uired; che (B7) te (B8) No \(\square\) No \(\square\) , monitor	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E) Depth (inch Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) Invertebrate on Sulfide (I Rhizosph e of Reduct or Reduct or Stresse explain in Fines): nes): 10 nes): 10 al photos,	tes (B13) Odor (C1) heres along ced Iron (C ction in Tille ad Plants (C Remarks) previous in	Living Roo 4) d Soils (C6 01) (LRR A) Wetla spections),	and Hyd if availab	Draw Draw Draw Draw Draw Draw Draw Draw	ater-Stair 4A, and ainage Pay-Season turation Neomorphic allow Aqr C-Neutra ised Ant ost-Heave	atterns (Batterns (Batterns (Batterns (Batterns (Batterns (Batterns (Date)))) atterns (Batterns (Date)) atterns (Date) 10) able (C2) Aerial Imagery (D2)) 50 D6) (LRR A) cks (D7) No 🗵	

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

Project/Site: 1655.0001 / Schoultes Property	(City/Cou	_{unty:} Marys	ville / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper				State: WA	Sampling Point: DP-7
				Fownship, Range: 28, 31,	
Landform (hillslope, terrace, etc.): Valley Floor				-	
Subregion (LRR): A-2	_ Lat: <u>48</u>	.13905	52	Long: -122.1628043	B6 Datum: WGS 84
Soil Map Unit Name: Norma Ioam				NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	⋈ No □	(If no, explain in Remarks.)	
Are Vegetation $\underline{\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}}$, Soil $\underline{\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}}$, or Hydrology $\underline{\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}}$ sign	nificantly dist	turbed?	Are "N	Normal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	(If nee	ded, explain any answers ir	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	ling point	locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Hydric Soil Present? Yes ☒ No ☐			the Sample		
Wetland Hydrology Present? Yes ☒ No ☐		W	ithin a Wetla	and? Yes ☒ N	0 📙
Remarks: Wetland B plot. All three wetland criteria	observed	Wetla	and bydrolo	ov confirmed by ground	dwater monitoring study
wedand B plot. An tince wedand effects	Obscived	. wena	ind nydroio,	gy commined by ground	iwater mointoinig study.
VEGETATION – Use scientific names of plan	ts.				
	Absolute		ant Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 30 ft) 1			es? Status	Number of Dominant Sp That Are OBL, FACW, o	
2				Total Number of Domina Species Across All Strat	
4.				Percent of Dominant Sp	ecies
Sapling/Shrub Stratum (Plot size: 15 ft)	<u> </u>	- 1012	ii Covei	That Are OBL, FACW, o	or FAC: <u>100%</u> (A/B)
1				Prevalence Index work	
2				Total % Cover of:	
3					x 1 = 0 x 2 = 0
4	-				$x = \frac{3}{45}$
5	0	- Tota	al Cover		$x = \frac{1}{40}$
Herb Stratum (Plot size: 5 ft)	<u> </u>	= 1012	ai Cover		x = 0 x = 0
1. Agrostis capillaris	15	Yes	FAC	Column Totals: 15	(A) <u>45</u> (B)
2					
3				Prevalence Index	
4				Hydrophytic Vegetatio	
5				Rapid Test for Hydro	• •
6				■ Dominance Test is >	
7				➤ Prevalence Index is	
8					tations¹ (Provide supporting or on a separate sheet)
9				☐ Wetland Non-Vascu	lar Plants ¹
10				☐ Problematic Hydropl	hytic Vegetation¹ (Explain)
11	15	- Tota	al Cover		and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)				be present, unless distu	rbed or problematic.
1 2				Hydrophytic	
	0	= Tota	al Cover	Vegetation Present? Yes	s⊠ No □
% Bare Ground in Herb Stratum <u>85</u>		. 5.0			
Remarks: Hydrophytic vegetation criterion observ	ved throug	gh don	ninance tes	st indicator.	
	·				

Sampling Point: DP-7

Depth (inches)	Matrix Color (moist)	%	Color	Redox r (moist)	<u>r Featur</u> %	<u>es</u> Type ¹	Loc ²	Textur	-0		Dor	narks	
0 - 10	10YR 3/2	98	<u>coloi</u> 5yr		2	C Type	PL	SaLo			Kei	<u>iiaiks</u>	
	10Y 5/1		- <u>-</u>										
10 - 24	-	<u>70</u>	_ <u></u>	3/4 7.5yr 4/6		CS	<u>M</u>	LoSa					
24 - 30	5gy 5/1	85	5yr	3/4	15	CS	<u>M</u>	LoSa	<u>a </u>				
								-					
			_										
	-												
										-			
	Concentration, D=D Indicators: (App						ed Sand G					<u>Lining, M=</u> tic Hydric	
-		iicabie io				neu.)						iic riyuric	Julis .
] Histosol	pipedon (A2)			Sandy Redox (St Stripped Matrix (S	-					Muck (A Parent M	•	TE2\	
	istic (A3)			oamy Mucky Mi		1) (excep	t MLRA 1)					ırface (TF1	2)
	en Sulfide (A4)			oamy Gleyed M			• ,		-	r (Explai		•	-/
	d Below Dark Surfa	ace (A11)		epleted Matrix		,				` '		,	
	ark Surface (A12)	, ,		Redox Dark Surf		i)		³ 1	ndicato	rs of hyd	rophytic	vegetation	n and
] Sandy M	Mucky Mineral (S1)			epleted Dark S	urface (F7)			wetla	nd hydro	logy mu	st be prese	ent,
	Gleyed Matrix (S4)		□R	Redox Depression	ons (F8))			unles	s disturb	ed or pr	oblematic.	
	Layer (if present)	:											
Type:													
Depth (in	nches):							Hydri	ic Soil	Present	? Yes	× No[
emarks:													
ydric soil	l criterion obse	ved thre	ough A3	3 indicator.				<u> </u>					
YDROLO	OGY		ough A3	3 indicator.									
/DROLO	OGY ydrology Indicator	's:											
Primary Indicates	OGY odrology Indicator icators (minimum c	's:	uired; che	ock all that apply								2 or more	
/DROLO /etland Hy rimary India	OGY vdrology Indicator icators (minimum o Water (A1)	's:	uired; che	ck all that apply ☐ Water-Stain	ned Lea	. , .	except MLF	RA		ater-Stai	ned Lea		required) MLRA 1, 2,
∕DROLO /etland Hy rimary Indi ☐ Surface ☐ High Wa	OGY /drology Indicator icators (minimum o Water (A1) ater Table (A2)	's:	uired; che	ck all that apply Water-Stain 1, 2, 4A	ned Lear , and 4 l	. , .	except MLF	RA	□ w	ater-Stai 4A, an	ned Lea d 4B)	ves (B9) (I	
/DROLO /etland Hy rimary India] Surface High Wa Saturatio	OGY /drology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3)	's:	uired; che	ck all that apply Water-Stain 1, 2, 4A Salt Crust (l	ned Leav , and 4 l B11)	В)	except MLF	RA	□ W	ater-Stai 4A, an e ainage F	ned Lea d 4B) Patterns	ves (B9) (I (B10)	/ILRA 1, 2
/DROLO /etland Hy rimary India Surface High Wa Saturatio Water M	OGY Idrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Idarks (B1)	's:	uired; che	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I	ned Lear , and 4 l B11) ertebrat	B) es (B13)	except MLF	RA	W Dr	ater-Stai 4A, an c ainage F y-Seaso	ned Lea d 4B) Patterns n Water	ves (B9) (I (B10) Table (C2	MLRA 1, 2
/DROLO /etland Hy rimary India Surface High Wa Saturatia Water M Sedimer	OGY /drology Indicator icators (minimum of the content of the con	's:	uired; che	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve	ned Lear , and 4 l B11) ertebrat Sulfide C	es (B13) Odor (C1)	·			ater-Stai 4A, and rainage F ry-Seaso aturation	ned Lea d 4B) Patterns n Water Visible o	ves (B9) (I (B10) Table (C2 on Aerial In	MLRA 1, 2
/DROLO /etland Hy rimary India Surface High Wa Saturatio Water M Sedimer Drift Dep	OGY /drology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) /darks (B1) nt Deposits (B2) posits (B3)	's:	uired; che	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve	ned Lear , and 4 l B11) ertebrat Gulfide C	es (B13) Odor (C1) eres along	Living Roo		W Dr Dr Sa Ge	ater-Stai 4A, and ainage F y-Seaso aturation eomorph	ned Lea d 4B) Patterns n Water Visible of	ves (B9) (I (B10) Table (C2 on Aerial In on (D2)	MLRA 1, 2
/DROLO /etland Hy rimary India Surface High Wa Saturatio Water M Sedimer Drift Dep	OGY /drology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	's:	uired; che	water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	ned Lear , and 4l B11) ertebrat Gulfide C nizospho f Reduc	es (B13) Odor (C1) eres along ed Iron (C	Living Roo 4)	ots (C3)	W Dr Dr Sa Ge Sh	ater-Stai 4A, and rainage F ry-Seaso aturation reomorph nallow Ac	ned Lead de 4B) Patterns In Water Visible of the Position of t	ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3)	MLRA 1, 2
/DROLO /etland Hy rimary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	JOGY Idrology Indicator icators (minimum of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	's:	uired; che	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	ned Lear , and 4l B11) ertebrate Sulfide C nizosphe f Reduce	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille	Living Roo 4) d Soils (C6	ots (C3)	W Dr Dr Sa Ge St F#	ater-Stai 4A, and rainage F ry-Seaso aturation reomorph hallow Ac	ned Lead de 4B) Patterns In Water Visible of the control In Position of the control In Test (In the control In Test (In the control In the co	ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5)	MLRA 1, 2
/DROLO /etland Hy rimary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or Crust (B4) posits (B5) Soil Cracks (B6)	's: f one requ	uired; che	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ned Lear , and 4l B11) ertebrat Sulfide C nizospho f Reduct Reduct Stressed	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C	Living Roo 4) d Soils (C6	ots (C3)	W Dr Dr Sa Ga Sh F#	ater-Stai 4A, and rainage F ry-Seaso aturation reomorph nallow Ac AC-Neutr aised Ant	ned Lea d 4B) Patterns n Water Visible of ic Positi juitard (I al Test (I	ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	MLRA 1, 2) nagery (CS
/DROLO /etland Hy rimary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	or water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria	's: f one requ	uired; che	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	ned Lear , and 4l B11) ertebrat Sulfide C nizospho f Reduct Reduct Stressed	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C	Living Roo 4) d Soils (C6	ots (C3)	W Dr Dr Sa Ga Sh F#	ater-Stai 4A, and rainage F ry-Seaso aturation reomorph nallow Ac AC-Neutr aised Ant	ned Lea d 4B) Patterns n Water Visible of ic Positi juitard (I al Test (I	ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5)	MLRA 1, 2) nagery (CS
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/DROLO /etland Hy rimary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely ield Obser	JGY /drology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) /darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarryations:	rs: f one requ il Imagery ve Surfac	uired; che	water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Sulfide C nizospho f Reduct Reduct Stressed ain in R	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C	Living Roo 4) d Soils (C6	ots (C3)	W Dr Dr Sa Ga Sh F#	ater-Stai 4A, and rainage F ry-Seaso aturation reomorph nallow Ac AC-Neutr aised Ant	ned Lea d 4B) Patterns n Water Visible of ic Positi juitard (I al Test (I	ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	MLRA 1, 2,) nagery (C9
/DROLO /etland Hy rimary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely ield Obser	pogy indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present?	rs: f one required in the second of the sec	uired; che	water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rr Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Sulfide C nizospho f Reduct Reduct Stressed ain in R	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C	Living Roo 4) d Soils (C6	ots (C3)	W Dr Dr Sa Ga Sh F#	ater-Stai 4A, and rainage F ry-Seaso aturation reomorph nallow Ac AC-Neutr aised Ant	ned Lea d 4B) Patterns n Water Visible of ic Positi juitard (I al Test (I	ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	MLRA 1, 2,) nagery (C9
YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser	pogy various indicators (minimum of water (A1) ater Table (A2) on (A3) varks (B1) at or Crust (B4) posits (B5) soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present?	rs: f one required in the second se	uired; che (B7) ce (B8) No 🔀	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Gulfide C nizospho f Reduct Reduct Stressed ain in R	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C	Living Roo 4) d Soils (C6 11) (LRR A)	ots (C3)	W Dr Sa Sa Sa Sa Sa Sa Sa S	ater-Stai 4A, and ainage F y-Seaso aturation eomorph nallow Ad AC-Neutralised And ost-Heav	ned Lead 48) Patterns n Water Visible of the control puttard (I) al Test (I) Mound We Humr	ves (B9) (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	MLRA 1, 2,
YDROLO Vetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely Field Obser Gurface Water Table Saturation P	pogy indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present?	rs: f one required in the second of the sec	uired; che	water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rr Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Gulfide C nizospho f Reduct Reduct Stressed ain in R	es (B13) Odor (C1) eres along ed Iron (C- tion in Tille d Plants (C	Living Roo 4) d Soils (C6 11) (LRR A)	ots (C3)	W Dr Sa Sa Sa Sa Sa Sa Sa S	ater-Stai 4A, and rainage F ry-Seaso aturation reomorph nallow Ac AC-Neutr aised Ant	ned Lead 48) Patterns n Water Visible of the control puttard (I) al Test (I) Mound We Humr	ves (B9) (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	MLRA 1, 2,
YDROLO Vetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely Field Obser Surface Water Table Saturation Princludes ca	pogy various indicators (minimum of water (A1) ater Table (A2) on (A3) varks (B1) at or Crust (B4) posits (B5) soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present?	rs: f one required in the second se	uired; che (B7) ce (B8) No 🔀 No 🗆	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Gulfide Conizospho f Reduce Reduce Stressed ain in R	es (B13) Dodor (C1) eres along ed Iron (C- tion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 01) (LRR A)	ots (C3)	W	ater-Stai 4A, and ainage F y-Seaso aturation eomorph nallow Ad AC-Neutralised And ost-Heav	ned Lead 48) Patterns n Water Visible of the control puttard (I) al Test (I) Mound We Humr	ves (B9) (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	MLRA 1, 2
YDROLO Vetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely Field Obser Surface Water Table Saturation Pencludes ca	pogy indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Table (A2) on (A3) Marks (B1) in Crust (B4) posits (B5) soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Present? Present? Present?	rs: f one required in the second se	uired; che (B7) ce (B8) No 🔀 No 🗆	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Gulfide Conizospho f Reduce Reduce Stressed ain in R	es (B13) Dodor (C1) eres along ed Iron (C- tion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 01) (LRR A)	ots (C3)	W	ater-Stai 4A, and ainage F y-Seaso aturation eomorph nallow Ad AC-Neutralised And ost-Heav	ned Lead 48) Patterns n Water Visible of the control puttard (I) al Test (I) Mound We Humr	ves (B9) (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	MLRA 1, 2
VDROLO Vetland Hy Verimary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely ield Obser surface Water Table staturation Pencludes ca	pogy indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Table (A2) on (A3) Marks (B1) in Crust (B4) posits (B5) soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Present? Present? Present?	rs: f one required in the second se	uired; che (B7) ce (B8) No 🔀 No 🗆	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Gulfide Conizospho f Reduce Reduce Stressed ain in R	es (B13) Dodor (C1) eres along ed Iron (C- tion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 01) (LRR A)	ots (C3)	W	ater-Stai 4A, and ainage F y-Seaso aturation eomorph nallow Ad AC-Neutralised And ost-Heav	ned Lead 48) Patterns n Water Visible of the control puttard (I) al Test (I) Mound We Humr	ves (B9) (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	MLRA 1, 2
TDROLO Tetland Hy rimary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatia Sparsely Teld Obser urface Water Table atturation P noludes ca escribe Re	pogy indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Table (A2) on (A3) Marks (B1) in Crust (B4) posits (B5) soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ater Present? Present? Present?	rs: f one required from the second s	uired; che (B7) ce (B8) No 🖾 No 🗆 , monitorii	ck all that apply Water-Stain 1, 2, 4A Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ned Lear , and 4l B11) ertebrat Gulfide C nizospho f Reduct Reduct Stressed ain in R	es (B13) Dodor (C1) eres along ed Iron (C- tion in Tille d Plants (D- emarks) previous in	Living Roo 4) d Soils (C6 01) (LRR A) Wetl spections),	ots (C3) i) and Hydianalia	☐ W ☐ Dr ☐ Dr ☐ Sa ☐ Ga ☐ Fr ☐ Ra ☐ Fr	ater-Stai 4A, and ainage F y-Seaso aturation eomorph hallow Ac AC-Neutr aised Anti ost-Heav	ned Lead 4B) Patterns n Water Visible of ic Positi quitard (I al Test of Mound re Humr	ves (B9) (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	MLRA 1, 2

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

Project/Site: 1655.0001 / Schoultes Property	(City/C	ounty: N	Marysvi	lle / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Sampling Point: DP-8
					wnship, Range: <u>28, 31,</u>	
Landform (hillslope, terrace, etc.): Valley Floor		Loca	ıl relief (c	concave,	convex, none): Concav	e Slope (%): 0
Subregion (LRR): A-2	_ Lat: 48.	1384	79		Long: -122.163289	79 Datum: WGS 84
Soil Map Unit Name: Norma Ioam					NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Ye	es 🗷 N	No □ (If	no, explain in Remarks.)	
Are Vegetation $\underline{\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}}$, Soil $\underline{\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}}$, or Hydrology $\underline{\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}\hspace{0.1in}}$ sign	nificantly dist	turbed	1?	Are "Nor	rmal Circumstances" pres	ent? Yes ☒ No ☐
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	>	(If neede	d, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sam	pling p	oint lo	cations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐						
Hydric Soil Present? Yes ☐ No 🗵				ampled A		
Wetland Hydrology Present? Yes ☐ No 🗵			within a	a Wetland	d? Yes ☐ No) <u>X</u>
Remarks: Not all three wetland criteria observed, hydro	phytic vege	tation	present	t. Non-w	etland hydrology confirm	ned by groundwater
monitoring study.					,	, 0
VEGETATION – Use scientific names of plan	ts.					
	Absolute				Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1	% Cover			<u>Status</u>	Number of Dominant Sp That Are OBL, FACW, o	
2					Total Number of Domina	
3					Species Across All Strate	a: <u>1</u> (B)
4Sapling/Shrub Stratum (Plot size: 15 ft)	0			er	Percent of Dominant Spo That Are OBL, FACW, o	
1					Prevalence Index work	sheet:
2					Total % Cover of:	Multiply by:
3						x 1 = <u>0</u>
4						x 2 = 0
5						x 3 = 120
Herb Stratum (Plot size: 5 ft)	0	= To	otal Cove	er		x 4 = 0
1. Agrostis capillaris	40	Yes	s F	AC	UPL species 0	x = 0 (A) 120 (B)
2					Column Totals: 40	(A) <u>120</u> (B)
3				-	Prevalence Index	= B/A = <u>3</u>
4.					Hydrophytic Vegetation	n Indicators:
5					☐ Rapid Test for Hydro	phytic Vegetation
6					▼ Dominance Test is >	50%
7					▼ Prevalence Index is	≤3.0 ¹
8						rations ¹ (Provide supporting or on a separate sheet)
9					☐ Wetland Non-Vascul	,
10				-	☐ Problematic Hydroph	nytic Vegetation¹ (Explain)
11	40					and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)			otal Cove	er -	be present, unless distur	bed or problematic.
1					Hydrophytic	
2	0	= To	tal Cove	er	Vegetation Present? Yes	No □
% Bare Ground in Herb Stratum 60			, , , , , , , , , , , , , , , , , , ,	,		
Remarks: Hydrophytic vegetation criterion observ	ved through	gh do	ominan	ce test	indicator.	
		_				

Sampling Point: DP-8

Depth inches)	Matrix Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Textu	re		Remarks	:
) - 12	2.5y 3/2	100		(IIIOISL)			LOC	SaL			Remarks	2
2 - 16	2.5y 4/3	98		yr 4/4	2	CS	M	LoSa				
6 - 30	5y 3/2	98		yr 4/4	2	CS	M	San		-		
0 00	3y 3/2			yı - -/				Jan	<u>u</u>			
		<u> </u>										
							-					
										-		
vne C=C	concentration, D=D	enletion	 RM=Red	uced Matrix	CS=Cove	red or Coat	ed Sand G	rains	2l oc	eation: PI =	Pore Linin	g, M=Matrix.
	Indicators: (App						ca cana ci					ydric Soils ³ :
Histosol	(A1)			Sandy Redox	(S5)] 2 cm	Muck (A10	0)	
Histic Ep	oipedon (A2)			Stripped Matr					Red	Parent Ma	terial (TF2)	
	istic (A3)		□ I	oamy Mucky	Mineral (F1) (excep	t MLRA 1)] Very	Shallow D	ark Surface	e (TF12)
Hydroge	en Sulfide (A4)			₋oamy Gleye		- 2)] Othe	r (Explain i	n Remarks	5)
	d Below Dark Surf	ace (A11)		Depleted Mat	` '							
	ark Surface (A12)			Redox Dark S	,	,		3		-		etation and
	Mucky Mineral (S1))		Depleted Darl						-	gy must be	
	Bleyed Matrix (S4)		F	Redox Depres	ssions (F8	3)		1	unles	s disturbed	or problen	natic.
Type:	Layer (if present)											
	iches):			-				l				
Deptil (iii	101103 <i>)</i> .									Present?	Yes	No ×
	soils indicators							Hydr	ic 50ii	- rosent.		TO EL
hydric	soils indicators	observ						Hydr	ic Soil			
DROLO etland Hy	soils indicators OGY rdrology Indicato	observ	ed.	eck all that ap	(Vlac			Hydr				
DROLO etland Hy	soils indicators OGY Idrology Indicato cators (minimum o	observ	ed.			aves (B9) (e	except MLF		Secon	ndary Indica	ators (2 or u	more required
DROLC etland Hy imary Indi Surface	OGY rdrology Indicators cators (minimum of Water (A1)	observ	ed.	☐ Water-St	tained Lea	. , ,	except MLF		Secon	ndary Indica ater-Staine	ators (2 or i	
DROLC etland Hy imary Indi Surface High Wa	ogy rdrology Indicator cators (minimum o Water (A1) ater Table (A2)	observ	ed.	☐ Water-St	tained Lea	. , ,	except MLF		Secon	ndary Indica ater-Staine 4 A, and 4	ators (2 or under the decision of the decision	more required B9) (MLRA 1 ,
DROLO etland Hy imary Indi Surface High Wa Saturatio	pGY vdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3)	observ	ed.	☐ Water-St 1, 2, ☐ Salt Crus	tained Lea 4A, and 4 st (B11)	IB)	except MLF		Secor	ndary Indica ater-Staine 4A, and 4 ainage Pat	ators (2 or red Leaves (more required B9) (MLRA 1,
DROLO etland Hy imary Indi Surface High Wa Saturatic Water M	oGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)	observ	ed.	☐ Water-St 1, 2, ☐ Salt Crus ☐ Aquatic I	tained Lea 4A, and 4 st (B11) Invertebra	tes (B13)	except MLF		Secon W	ndary Indica ater-Staine 4A, and a rainage Pat y-Season N	ators (2 or i d Leaves (4B) tterns (B10 Water Tabl	more required B9) (MLRA 1 ,) e (C2)
DROLO etland Hy imary Indi Surface High Wa Saturation Water M Sedimer	oGY rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	observ	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge	tained Lea 4A, and 4 st (B11) Invertebra n Sulfide (tes (B13) Odor (C1)		RA	Secor W Dr Dr	ndary Indica ater-Staine 4A, and 4 ainage Pat y-Season Vi aturation Vi	ators (2 or i d Leaves (4B) tterns (B10 Water Tabl sible on Ae	more required B9) (MLRA 1,) e (C2) erial Imagery (
DROLO etland Hy imary Indi Surface High Wa Saturati Water M Sedimer Drift Dep	posits indicators organization of the control of t	observ	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebra n Sulfide (tes (B13) Odor (C1) neres along	Living Roo	RA	Secon W Dr Dr Sa Ge	ndary Indica ater-Staine 4A, and 4 rainage Pat ry-Season Vi aturation Vi eomorphic	ators (2 or i d Leaves (4B) tterns (B10 Water Tabl sible on Ae Position (D	more required B9) (MLRA 1,) e (C2) erial Imagery (
DROLC etland Hy imary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma	pogy rdrology Indicators water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	observ	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	tained Lea 4A, and 4 st (B11) Invertebra n Sulfide (Rhizosph e of Reduct	tes (B13) Odor (C1) neres along ced Iron (C	Living Roo 4)	RA ts (C3)	Secon W Dr Dr Sa Ge	adary Indica ater-Staine 4A, and 4 ainage Pat y-Season Vi aturation Vi eomorphic nallow Aqui	ators (2 or under Leaves (48) Itterns (B10) Water Table sible on Aeron (D3)	more required B9) (MLRA 1,) e (C2) erial Imagery (
DROLO etland Hy imary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma Iron Dep	pogy redrology Indicators water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	observ	ed.	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (I I Rhizosphe of Reductor	tes (B13) Odor (C1) neres along ced Iron (Cotion in Tille	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W Dr Dr Sa Ge St F#	adary Indica ater-Staine 4A, and 4 ainage Pat y-Season V aturation Vi eomorphic nallow Aqui	ators (2 or red Leaves (4B) tterns (B10 Water Tablesible on Ae Position (D tard (D3) Test (D5)	more required B9) (MLRA 1,) e (C2) erial Imagery (12)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or soils indicators or o	rs:	ed.	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (I Rhizosphe of Reduction Reduction Stresse	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W	adary Indica ater-Staine 4A, and 4 rainage Pat ry-Season V aturation Vi eomorphic nallow Aqui AC-Neutral aised Ant M	ators (2 or red Leaves (4B) tterns (B10 Water Tables on Ae Position (D tard (D3) Test (D5) Mounds (D6	more required B9) (MLRA 1,) e (C2) erial Imagery (c2)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	oGY rdrology Indicators water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria	rs: of one requal Imagery	ed. uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (I I Rhizosphe of Reductor	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W	adary Indica ater-Staine 4A, and 4 rainage Pat ry-Season V aturation Vi eomorphic nallow Aqui AC-Neutral aised Ant M	ators (2 or red Leaves (4B) tterns (B10 Water Tablesible on Ae Position (D tard (D3) Test (D5)	more required B9) (MLRA 1,) e (C2) erial Imagery (c2)
DROLO etland Hy imary Indi Surface High Wa Saturatie Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	posits (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	rs: of one requal Imagery	ed. uired; che	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (I Rhizosphe of Reduction Reduction Stresse	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W	adary Indica ater-Staine 4A, and 4 rainage Pat ry-Season V aturation Vi eomorphic nallow Aqui AC-Neutral aised Ant M	ators (2 or red Leaves (4B) tterns (B10 Water Tables on Ae Position (D tard (D3) Test (D5) Mounds (D6	more required B9) (MLRA 1,) e (C2) erial Imagery (c2)
DROLC etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	pogy varology Indicators water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concarvations:	rs: of one requal Imagery	ed. uired; che	Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (I) In Sul	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W	adary Indica ater-Staine 4A, and 4 rainage Pat ry-Season V aturation Vi eomorphic nallow Aqui AC-Neutral aised Ant M	ators (2 or red Leaves (4B) tterns (B10 Water Tables on Ae Position (D tard (D3) Test (D5) Mounds (D6	more required B9) (MLRA 1,) e (C2) erial Imagery (c2)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	or soils indicators or o	rs: of one requal Imagery ave Surface	ed. uired; che (B7) ce (B8)	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted Other (E	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (In Rhizospheron Reductor Stresse xplain in Fames):	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D	Living Roo 4) d Soils (C6	RA ts (C3)	Secor W	adary Indica ater-Staine 4A, and 4 rainage Pat ry-Season V aturation Vi eomorphic nallow Aqui AC-Neutral aised Ant M	ators (2 or red Leaves (4B) tterns (B10 Water Tables on Ae Position (D tard (D3) Test (D5) Mounds (D6	more required B9) (MLRA 1,) e (C2) erial Imagery (c2)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely eld Observator Table	oGY rdrology Indicators water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concarvations: ter Present?	rs: of one requare Surface Yes Yes Yes X	ed. uired; che (B7) ce (B8) No 🖾	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (In Reduction Reduction Reduction Stresse Explain in Figures): 15	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D	Living Roo 4) d Soils (C6 01) (LRR A)	RA tts (C3)	Secor W Dr Dr Sa Ge	adary Indica ater-Staine 4A, and 4 ainage Pat y-Season V aturation Vi eomorphic hallow Aqui AC-Neutral aised Ant M ost-Heave	ators (2 or red Leaves (4B) Itterns (B10 Water Tables on Aeroposition (D3) Test (D3) Test (D5) Mounds (D6) Hummocks	more required B9) (MLRA 1,) e (C2) erial Imagery (12) S) (LRR A) s (D7)
TDROLO etland Hy imary Indi] Surface] High Wa] Saturati] Water M] Sedimer] Drift Dep] Algal Ma] Iron Dep] Surface] Inundati] Sparsely eld Observator Table atturation Facludes ca	pogy rdrology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	rs: of one requares Surface Yes Yes X Yes X	ed. uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (In Rhizosphe of Reductor Reductor Stresse xplain in Filmes): 15 168): 15 168): 19	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D Remarks)	Living Roo 4) d Soils (C6 01) (LRR A)	RA tts (C3)	Secon W Dr Dr Sa Ge Sr FA	adary Indica ater-Staine 4A, and 4 ainage Pat y-Season V aturation Vi eomorphic hallow Aqui AC-Neutral aised Ant M ost-Heave	ators (2 or red Leaves (4B) tterns (B10 Water Tables on Ae Position (D tard (D3) Test (D5) Mounds (D6	more required B9) (MLRA 1,) e (C2) erial Imagery (c2)
DROLO etland Hy imary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely eld Observation Face Water Table atturation Faceludes ca	or Crust (B4) posits (B5) soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	rs: of one requares Surface Yes Yes X Yes X	ed. uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (In Rhizosphe of Reductor Reductor Stresse xplain in Filmes): 15 168): 15 168): 19	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D Remarks)	Living Roo 4) d Soils (C6 01) (LRR A)	RA tts (C3)	Secon W Dr Dr Sa Ge Sr FA	adary Indica ater-Staine 4A, and 4 ainage Pat y-Season V aturation Vi eomorphic hallow Aqui AC-Neutral aised Ant M ost-Heave	ators (2 or red Leaves (4B) Itterns (B10 Water Tables on Aeroposition (D3) Test (D3) Test (D5) Mounds (D6) Hummocks	more required B9) (MLRA 1,) e (C2) erial Imagery (12) S) (LRR A) s (D7)
DROLO etland Hy imary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely eld Observation Factures Calescribe Re	pogy rdrology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	rs: of one requares Surface Yes Yes X Yes X	ed. uired; che (B7) ce (B8) No 🖾 No 🗆	Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (In Rhizosphe of Reductor Reductor Stresse xplain in Filmes): 15 168): 15 168): 19	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D Remarks)	Living Roo 4) d Soils (C6 01) (LRR A)	RA tts (C3)	Secon W Dr Dr Sa Ge Sr FA	adary Indica ater-Staine 4A, and 4 ainage Pat y-Season V aturation Vi eomorphic hallow Aqui AC-Neutral aised Ant M ost-Heave	ators (2 or red Leaves (4B) Itterns (B10 Water Tables on Aeroposition (D3) Test (D3) Test (D5) Mounds (D6) Hummocks	more required B9) (MLRA 1,) e (C2) erial Imagery (12) S) (LRR A) s (D7)
DROLC etland Hy imary Indi Surface High Wa Saturation Vater M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely etld Obser ater Table atturation F cludes ca	pogy rdrology Indicators cators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	rs: of one required one one one of the required one of the r	ed. uired; che (B7) ce (B8) No Water-St 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch	tained Lea 4A, and 4 st (B11) Invertebra In Sulfide (In Rhizosphe of Reductor Reductor Stresse explain in Files): 1	tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D Remarks)	Living Roo 4) ad Soils (C6 01) (LRR A) Wetl spections),	ts (C3)	Secor W Dr Dr Sa Ge St FA	adary Indica ater-Staine 4A, and 4 rainage Pat ry-Season vaturation Vi eomorphic nallow Aqui AC-Neutral aised Ant Most-Heave	ators (2 or led Leaves (4B) tterns (B10 Water Tabl sible on Ae Position (D tard (D3) Test (D5) Hounds (D6 Hummocks	more required B9) (MLRA 1,) e (C2) erial Imagery (12) b) (LRR A) c (D7)	

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

Project/Site: 1655.0001 / Schoultes Property	(City/Co	ounty: Mary	ysville	e / Snohomish	Sampling Date: 03/01/2018
Applicant/Owner: Columbia Bank / Rob Draper					State: WA	Sampling Point: DP-9
Investigator(s): Emily Swaim, Richard Peel, Jon Pi						
Landform (hillslope, terrace, etc.): Valley Floor		Local	relief (conca	ave, co	onvex, none): None	Slope (%): 0
Subregion (LRR): A-2	_ Lat: <u>48.</u>	13767	76		Long: -122.163400	93 Datum: WGS 84
Soil Map Unit Name: Norma Ioam					NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Ye	s 🗷 No 🗌] (If n	o, explain in Remarks.)	
Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology sign	nificantly dist	turbed'	? Are	"Norm	nal Circumstances" pres	ent? Yes 🗵 No 🗌
Are Vegetation, Soil, or Hydrology natu	rally probler	matic?	(If ne	eeded,	, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samp	oling poin	nt loc	ations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☒ No ☐						
Hydric Soil Present? Yes ☒ No ☐			s the Sampl			
Wetland Hydrology Present? Yes ☐ No 🗵		'	within a Wet	etiand	? Yes □ No) <u>X</u>
Remarks: Not all three wetland criteria present, only hy	drophytic v	eoetati	on and hydr	lric soi	ils present Non-wetlan	nd hydrology confirmed by
groundwater monitoring study.	aropiny are ve	egetat	.011 4114 119 41		ao presenta i tora wetana	a nyarotogy commune sy
VEGETATION – Use scientific names of plan	ts.					
			nant Indicato		Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft) 1			ies? Status	'	Number of Dominant Sp That Are OBL, FACW, o	
2					Total Number of Domina	
3				- ^{\$}	Species Across All Strate	a: <u>1</u> (B)
4 Sapling/Shrub Stratum (Plot size: 15 ft)	0				Percent of Dominant Spo That Are OBL, FACW, o	
1				_	Prevalence Index work	sheet:
2				_ _	Total % Cover of:	Multiply by:
3				_		x 1 = <u>0</u>
4				_ F		x 2 = <u>0</u>
5				_	-	x 3 = <u>150</u>
	0	= Tot	al Cover			x 4 = 0
Herb Stratum (Plot size: <u>5 ft)</u> 1. Holcus lanatus	50	Vas	FAC	l	JPL species 0	x 5 = 0
				- °	Column Totals: 50	(A) <u>150</u> (B)
2				_	Prevalence Index	= B/A = <u>3</u>
4				_ -	Hydrophytic Vegetation	n Indicators:
5				_ .	☐ Rapid Test for Hydro	
6.				_ [▼ Dominance Test is >	·50%
7				_ [▼ Prevalence Index is	≤3.0 ¹
8.				_ [tations¹ (Provide supporting or on a separate sheet)
9				_ _[☐ Wetland Non-Vascul	, ,
10				_ :	_	nytic Vegetation¹ (Explain)
11	<u></u>				_ , ,	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft)	50		al Cover		pe present, unless distur	
1					Hydrophytic	
2	0	_ Ta4	al Cover		Vegetation Present? Yes	. ⊠ No □
% Bare Ground in Herb Stratum 50	<u> </u>	- 101	ai Cover	'	165	
Remarks: Hydrophytic vegetation criterion observ	ved throug	ah do	minance te	test ir	ndicator	
,		J. 7 40				

Depth	cription: (Described) Matrix		•	Re	dox Featu			i tile ab	0000	or maicators.,	
(inches)	Color (moist)	%		r (moist)	%	Type ¹	Loc ²	Textur		Remark	<u>ss</u>
0 - 9	10YR 3/2	100						SaL)	Gravelly	
9 - 18	2.5Y 5/2	97	7.5	YR 5/8	3	CS	M	LoSa	<u>a</u>		
18 - 30	2.5Y 5/2	90	5Y	R 5/8	5	CS	M	LoSa	а		
18 - 30			5Y	R 5/6	5	CS	M	LoSa	<u> </u>		
	-										
-											
-							-				
	Concentration, D=D						ed Sand Gr			ation: PL=Pore Lini	
=	Indicators: (App	licable to	all LRR	s, unless oth	nerwise no	oted.)		In	dicato	rs for Problematic	Hydric Soils³:
Histosol	• •			Sandy Redox				_		Muck (A10)	
	pipedon (A2)			Stripped Matr	` '	54) (MI DA 4\			Parent Material (TF2	,
	istic (A3)			_oamy Mucky			MLRA 1)	Ļ	-	Shallow Dark Surface	
	en Sulfide (A4) d Below Dark Surfa	nco (A11)		_oamy Gleyed Depleted Mat		-2)] Othe	r (Explain in Remark	S)
	ark Surface (A12)	ace (ATT)		Redox Dark S		3)		3 1	ndicato	rs of hydrophytic veg	etation and
	Mucky Mineral (S1)			Depleted Dark	•	,				nd hydrology must b	
-	Gleyed Matrix (S4)			Redox Depres		. ,				s disturbed or proble	
	Layer (if present)	:		· ·		,				· · · · · · · · · · · · · · · · · · ·	
Type:				-							
Depth (in	nches):							Hydr	ic Soil	Present? Yes ⊠	No □
Remarks:								1 -			
Hydric soil		rvad thr	auah A	11 & F2 in/	dicator						
Hydric soil	i criterion obsei	rved thr	ough A	11 & F3 ind	dicator.						
Hydric soil	i criterion obsei	rved thr	ough A	11 & F3 ind	dicator.						
		rved thr	ough A	11 & F3 ind	dicator.						
HYDROLO	OGY		ough A	11 & F3 ind	dicator.						
HYDROLO Wetland Hy	OGY _/ drology Indicator	's:							0		
HYDROLO Wetland Hy Primary Indi	OGY rdrology Indicator icators (minimum o	's:		eck all that ap	oply)					dary Indicators (2 or	
HYDROLO Wetland Hy Primary Indi Surface	OGY rdrology Indicator icators (minimum o Water (A1)	's:		eck all that ap □ Water-Si	oply) tained Lea		xcept MLR	RA		ater-Stained Leaves	
HYDROLO Wetland Hy Primary Indi Surface High Wa	OGY /drology Indicator icators (minimum o Water (A1) ater Table (A2)	's:		eck all that ap Water-Si 1, 2,	oply) tained Lea 4A, and 4		xcept MLR	RA	□ W:	ater-Stained Leaves 4A, and 4B)	(B9) (MLRA 1, 2 ,
HYDROLO Wetland Hy Primary Indi Surface High Wa	OGY /drology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3)	's:		eck all that ap Water-Si 1, 2, Salt Crus	oply) tained Lea 4A, and 4 st (B11)	·B)	xcept MLF	RA		ater-Stained Leaves 4A, and 4B) ainage Patterns (B1)	(B9) (MLRA 1, 2,
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatic Water M	OGY Idrology Indicator icators (minimum of the water (A1) ater Table (A2) on (A3) Idarks (B1)	's:		eck all that ap Water-Si 1, 2, Salt Crus Aquatic I	oply) tained Lea 4A, and 4 st (B11) invertebrat	tes (B13)	xcept MLR	AA		ater-Stained Leaves 4A, and 4B) ainage Patterns (B1 y-Season Water Tab	(B9) (MLRA 1, 2, 0) ole (C2)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer	ody Idrology Indicator Idrology	's:		eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge	oply) tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (tes (B13) Odor (C1)				ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab turation Visible on A	(B9) (MLRA 1, 2, O) ole (C2) erial Imagery (C9)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	OGY /drology Indicator icators (minimum of the content of the con	's:		eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	oply) tained Lea 4A, and 4 st (B11) Invertebrat in Sulfide (Rhizosph	tes (B13) Odor (C1) heres along	Living Roo		 □ Wa □ Dr □ Dr □ Sa □ Ge 	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab attraction Visible on A comorphic Position ((B9) (MLRA 1, 2, O) ole (C2) erial Imagery (C9)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	or various functions (minimum of the control of the	's:		eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized	tained Lea 4A, and 4 st (B11) Invertebrat n Sulfide (I I Rhizosph e of Reduc	tes (B13) Odor (C1) teres along ced Iron (C4	Living Roo	ts (C3)	Wa	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab attration Visible on A comorphic Position (I allow Aquitard (D3)	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	Mater (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B3) at or Crust (B4) posits (B5)	's:		eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence	aply) tained Lea 4A, and 4 st (B11) Invertebrat in Sulfide (I) In Rhizosph e of Reduction Reduction	tes (B13) Odor (C1) heres along ced Iron (C4) tion in Tille	Living Roo 1) d Soils (C6	ts (C3)		ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab attration Visible on A comorphic Position (I allow Aquitard (D3) AC-Neutral Test (D5)	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or Crust (B4) posits (B5) Soil Cracks (B6)	's: If one req	uired; che	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	aply) tained Lea 4A, and 4 st (B11) Invertebrat in Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) heres along ced Iron (Catton in Tille d Plants (D	Living Roo 1) d Soils (C6	ts (C3)	☐ Windows	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab sturation Visible on A ecomorphic Position (I allow Aquitard (D3) AC-Neutral Test (D5) sised Ant Mounds (D	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	or Crust (B4) posits (B5) soil Cracks (B6) on Visible on Aeria	rs: If one req	uired; che	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	aply) tained Lea 4A, and 4 st (B11) Invertebrat in Sulfide (I) In Rhizosph e of Reduction Reduction	tes (B13) Odor (C1) heres along ced Iron (Catton in Tille d Plants (D	Living Roo 1) d Soils (C6	ts (C3)	☐ Windows	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab attration Visible on A eomorphic Position (I allow Aquitard (D3) AC-Neutral Test (D5)	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	Mater (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	rs: If one req	uired; che	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	aply) tained Lea 4A, and 4 st (B11) Invertebrat in Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse	tes (B13) Odor (C1) heres along ced Iron (Catton in Tille d Plants (D	Living Roo 1) d Soils (C6	ts (C3)	☐ Windows	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab sturation Visible on A ecomorphic Position (I allow Aquitard (D3) AC-Neutral Test (D5) sised Ant Mounds (D	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	Mater (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Conca	r s: If one required in the second in the	uired; che	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) Inkizosph e of Reduct ron Reduct or Stresse xplain in R	tes (B13) Odor (C1) heres along ced Iron (Catton in Tille d Plants (D	Living Roo 1) d Soils (C6	ts (C3)	☐ Windows	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab sturation Visible on A ecomorphic Position (I allow Aquitard (D3) AC-Neutral Test (D5) sised Ant Mounds (D	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
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HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	or process (B4) posits (B5) soil Cracks (B6) on Visible on Aeria y Vegetated Conca	rs: If one required in the second in the s	uired; che	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted I Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse xplain in Reduct ans.:	tes (B13) Odor (C1) heres along ced Iron (Catton in Tille d Plants (D	Living Roo 1) d Soils (C6	ts (C3)	☐ Windows	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab sturation Visible on A ecomorphic Position (I allow Aquitard (D3) AC-Neutral Test (D5) sised Ant Mounds (D	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Water Table Saturation F	order present?	rs: If one required in the second in the se	uired; che	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted I Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I Rhizosph e of Reduct ron Reduct or Stresse xplain in Reduct ans.:	tes (B13) Odor (C1) heres along ced Iron (Catton in Tille d Plants (D	Living Roo I) d Soils (C6 1) (LRR A)	ts (C3)	☐ Wi	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab sturation Visible on A ecomorphic Position (I allow Aquitard (D3) AC-Neutral Test (D5) sised Ant Mounds (D	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	or process (B4) posits (B5) soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? process (B6) pro	rs: If one required in the second in the s	uired; che (B7) ce (B8) No 🖫 No 🗆	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted I Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) Rhizosph In Grand Reduct In	tes (B13) Odor (C1) heres along ced Iron (C4 tion in Tille d Plants (D Remarks)	Living Roo I) d Soils (C6 1) (LRR A)	ts (C3)) and Hyo	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ Ra ☐ Fr	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab turation Visible on A comorphic Position (in allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (Diest-Heave Hummock	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
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HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	or process (B4) posits (B5) soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? process (B6) pro	rs: If one required in the second in the s	uired; che (B7) ce (B8) No 🖫 No 🗆	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted I Other (E	tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (I) Rhizosph In Grand Reduct In	tes (B13) Odor (C1) heres along ced Iron (C4 tion in Tille d Plants (D Remarks)	Living Roo I) d Soils (C6 1) (LRR A)	ts (C3)) and Hyo	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ Ra ☐ Fr	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab turation Visible on A comorphic Position (in allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (Diest-Heave Hummock	(B9) (MLRA 1, 2, D) ole (C2) erial Imagery (C9) D2) 6) (LRR A)
HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	or provided by the content of the co	rs: If one required in the second s	uired; che (B7) ce (B8) No \(\subseteq \) No \(\subseteq \) No \(\subseteq \)	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E) Depth (inch Depth (inch	pply) tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Reduction Reduction Reduction Reduction Stresse Explain in Reduction Red	tes (B13) Odor (C1) heres along ced Iron (C4 tion in Tille d Plants (D Remarks) previous in	Living Roo I) d Soils (C6 1) (LRR A) Wetla	ts (C3)) and Hyo	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA ☐ Ra ☐ Fre	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab aturation Visible on A ecomorphic Position (I allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D ost-Heave Hummock y Present? Yes	(B9) (MLRA 1, 2, 2) (B9) (MLRA 1, 2, 2) (B9) (C2) (B1) (C2) (B2) (C3) (B2) (C3) (B3) (C4) (B3) (MLRA 1, 2, 2) (B4) (C4) (B4) (C4) (B5) (MLRA 1, 2, 2) (B4) (C4) (B5) (MLRA 1, 2, 2) (B5) (MLRA 1, 2, 2) (B6) (LRR A) (B7) (C4) (B7
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	or process of the pro	rs: If one required on obse	uired; che (B7) ce (B8) No n	eck all that ap Water-Si 1, 2, Salt Crus Aquatic I Hydroge Oxidized Presence Stunted (Other (E) Depth (inch Depth (inch Depth (inch ing well, aeria	poply) tained Lea 4A, and 4 st (B11) Invertebrat In Sulfide (In Reduction Reduction Reduction Reduction Stresse explain in Reduction Red	tes (B13) Odor (C1) heres along ced Iron (C4 tion in Tille hered Plants (D Remarks) previous in indicator	Living Roo I) d Soils (C6 1) (LRR A) Wetla spections),	ts (C3)) and Hyd if availa	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ Sh ☐ FA ☐ Ra ☐ Fr ☐ ble: wing s	ater-Stained Leaves 4A, and 4B) ainage Patterns (B1) y-Season Water Tab turation Visible on A comorphic Position (in allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (Diest-Heave Hummock	(B9) (MLRA 1, 2, D) D) D) D) D) D(C) D(C) D(C) D(C) D(C)

Appendix F — Wetland Rating Forms

RATING SUMMARY – Western Washington

Name of wetland (or ID #): A	Date of site visit:
Rated by Emily Swaim	_ Trained by Ecology? <u>✓</u> YesNo Date of training 3/31/2016
HGM Class used for rating Depressional	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete witho Source of base aerial photo/map	eut the figures requested (figures can be combined). ESRI 2018
OVERALL WETLAND CATEGORY	(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

X Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the ap	propriate ratings	
Site Potential	L	L	L	
Landscape Potential	М	M	L	
Value	Н	M	L	TOTAL
Score Based on Ratings	6	5	3	14

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	N/A	

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	S 4.1	
(can be added to figure above)		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	

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 tide	s except during floods?
	☑NO – go to 2	YES – the wetland class	s is Tidal Fringe – go to 1.1
-	1.1 Is the salinity of the water duri	ng periods of annual low flow b	pelow 0.5 ppt (parts per thousand)?
	, ,	as a Freshwater Tidal Fringe u Estuarine wetland and is not s	- Freshwater Tidal Fringe se the forms for Riverine wetlands. If it scored. This method cannot be used to
2.	The entire wetland unit is flat an and surface water runoff are NO		ce (>90%) of water to it. Groundwater
×	NO – go to 3 If your wetland can be classified o		- The wetland class is Flats for Depressional wetlands.
3.		and is on the shores of a body one of the year) at least 20 ac (
×	☑NO – go to 4	E S - The wetland class is Lake	Fringe (Lacustrine Fringe)
4.	_	pe can be very gradual), vetland in one direction (unidi as sheetflow, or in a swale wit	rectional) and usually comes from hout distinct banks,
×	NO – go to 5	☐ YES -	The wetland class is Slope
	•	5 1	scept occasionally in very small and ally <3 ft diameter and less than 1 ft
5.	Does the entire wetland unit me The unit is in a valley, or stre stream or river, The overbank flooding occur.	m channel, where it gets inunc	lated by overbank flooding from that

VV €	tland name or number <u>A</u>
X	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? <i>This means that any outlet, if present, is higher than the interior of the wetland.</i>
	NO – go to 7
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

Λ

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

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 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	2
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	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 Wetland has persistent, ungrazed, plants > $\frac{1}{10}$ of area Wetland has persistent, ungrazed plants > $\frac{1}{10}$ of area Wetland has persistent, ungrazed plants < $\frac{1}{10}$ of area points = 0	0
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is < ½ total area of wetland points = 2 Area seasonally ponded is < ½ total area of wetland points = 0	0
Total for D 1 Add the points in the boxes above	2
Rating of Site Potential If score is:12-16 = H6-11 = MX_0-5 = L Record the rating on the first p	age
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. ls > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
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? Source $\underline{\hspace{1cm}}$ 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 = HX_1 or 2 = M0 = L Record the rating on the f	irst 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 = $1 \text{ No} = 0$	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = $1 \text{ No} = 0$	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 = 2 No = 0	2
Total for D 3 Add the points in the boxes above	3
Rating of Value If score is: X 2-4 = H1 = M0 = L	

<u>DEPRESSIONAL AND FLATS WETLANDS</u> Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradations.	ion
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) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2
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 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 Marks of ponding less than 0.5 ft (6 in) points = 0	0
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 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	0
Total for D 4 Add the points in the boxes above	2
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	1
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	1
Total for D 5 Add the points in the boxes above	2
Rating of Landscape Potential If score is: 3 = H X 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): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. • Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin. points = 1 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.	1
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 ___X_1 = M ____0 = L

Record the rating on the first page

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 _x_Emergent 0 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 × Occasionally flooded or inundated 2 types present: points = 1 1 × Saturated only 1 type present: points = 0 ___Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². 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 1 If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 < 5 species 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 Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points

	1	
H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of checks is the number of points.		
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).		
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)		
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	0	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered		
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are		
permanently or seasonally inundated (structures for egg-laying by amphibians)		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of		
Strata) Add the points in the house phase		
Total for H 1 Add the points in the boxes above	2	
Rating of Site Potential If score is:15-18 = H7-14 = M \times _0-6 = L Record the rating on	the first page	
H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: $\boxed{4.91}$ % undisturbed habitat + [(% moderate and low intensity land uses) $\boxed{0.57}$ /2] = $\boxed{5.195}$ %		
If total accessible habitat is:		
> $\frac{1}{3}$ (33.3%) of 1 km Polygon points = 3		
	0	
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: 7.39 % undisturbed habitat + [(% moderate and low intensity land uses) $\frac{4.47}{2}$ = $\frac{9.625}{2}$ %		
Undisturbed habitat > 50% of Polygon points = 3	0	
Undisturbed habitat 10-50% and in 1-3 patches points = 2	U	
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)	-2	
\leq 50% of 1 km Polygon is high intensity points \leq 50% of 1 km Polygon is high intensity points \leq 0	_	
	-2	
Total for H 2 Add the points in the boxes above		
Rating of Landscape Potential If score is:4-6 = H1-3 = MX < 1 = L	he 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	0	
— 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		
Site does not meet any of the criteria above points = 0	I	

Rating of Value If score is: $_2 = H$ $_1 = M$ $\times 0 = L$

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (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.

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		
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?		
\square The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less		
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)		
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-		
mowed grassland.		
☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or		
contiguous freshwater wetlands. ☐Yes = Category I ☐No = Category II		
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?		
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?		
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</i>		
below. If you answer YES you will still need to rate the wetland based on its functions.		
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or		
more of the first 32 in of the soil profile? ☐Yes – Go to SC 3.3 ☒No – Go to SC 3.2		
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep		
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or		
pond? □Yes – Go to SC 3.3 ☑No = Is not a bog		
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%		
cover of plant species listed in Table 4?		
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		

Wetland name or number $\underline{\mathsf{A}}$

SC 4.0. Forested Wetlands	
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>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) □ Yes − Go to SC 5.1 ☑No = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ 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) □ Yes = Category I □ No = Category II	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 ☐ Yes − Go to SC 6.1 ☑ No = not an interdunal wetland for rating 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 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	
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	
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

Wetland name or number A

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): D	Date of site visit:
Rated by Richard Peel Tra	nined by Ecology? <u>✓</u> YesNo Date of training 6/29/16
HGM Class used for rating Depressional	_ Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete without the Source of base aerial photo/map Esr	ne figures requested (figures can be combined).
OVERALL WETLAND CATEGORY	(based on functions <a> 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
X	_Category IV — Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the ap	propriate ratings	
Site Potential	L	L	L	
Landscape Potential	М	M	L	
Value	Н	M	L	TOTAL
Score Based on Ratings	6	5	3	14

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	N/A	

Maps and figures required to answer questions correctly for Western Washington

<u>Depressional Wetlands</u>

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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	S 4.1	
(can be added to figure above)		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	

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 u	nit usually controlled by tides except during floods?
Σ	⊠NO – go to 2	☐ YES – the wetland class is Tidal Fringe – go to 1.1
1	1.1 Is the salinity of the water during	periods of annual low flow below 0.5 ppt (parts per thousand)?
		s a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it stuarine wetland and is not scored. This method cannot be used to
2.	The entire wetland unit is flat and j and surface water runoff are NOT s	precipitation is the only source (>90%) of water to it. Groundwater sources of water to the unit.
×	☑NO – go to 3 If your wetland can be classified as a	TYES – The wetland class is Flats a Flats wetland, use the form for Depressional wetlands.
3.	-	nd is on the shores of a body of permanent open water (without any e of the year) at least 20 ac (8 ha) in size;
X	☑NO – go to 4	S – The wetland class is Lake Fringe (Lacustrine Fringe)
4.		e can be very gradual), etland in one direction (unidirectional) and usually comes from as sheetflow, or in a swale without distinct banks,
X	☑NO – go to 5	☐ YES – The wetland class is Slope
	-	d in these type of wetlands except occasionally in very small and nmocks (depressions are usually <3 ft diameter and less than 1 ft
5.	Does the entire wetland unit meet ☐ The unit is in a valley, or stream stream or river, ☐ The overbank flooding occurs a	n channel, where it gets inundated by overbank flooding from that

We	Wetland name or number <u>b</u>	
×	NO − go to 6 NOTE : The Riverine unit can contain depressions that flooding	YES − The wetland class is Riverine t are filled with water when the river is not
6.	 Is the entire wetland unit in a topographic depression surface, at some time during the year? This means the of the wetland. 	<u>-</u>
	□ NO – go to 7	S – The wetland class is Depressional
7.	 Is the entire wetland unit located in a very flat area we flooding? The unit does not pond surface water more maintained by high groundwater in the area. The we outlet. 	e than a few inches. The unit seems to be
X	☑ NO – go to 8	S – 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	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	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.

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. <u>Characteristics of surface water outflows from the wetland</u> : Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3				
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	2			
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	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 Wetland has persistent, ungrazed, plants > ½ of area Wetland has persistent, ungrazed plants > 1/10 of area Wetland has persistent, ungrazed plants < 1/10 of area points = 0	0			
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0	0			
Total for D 1 Add the points in the boxes above	2			
Rating of Site Potential If score is: 12-16 = H 6-11 = M × 0-5 = L Record the rating on the first po	ige			
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	1			
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? 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 = HX_1 or 2 = M0 = L Record the rating on the fit	rst 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	0			
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 = 2 No = 0	2			
Total for D 3 Add the points in the boxes above	3			
Rating of Value If score is: X 2-4 = H 1 = M 0 = L NOTES and FIELD OBSERVATIONS: Record the rating on the first page				

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) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2	
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 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 Marks of ponding less than 0.5 ft (6 in)	0	
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 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	0	
Total for D 4 Add the points in the boxes above Rating of Site Potential If score is: 12-16 = H 6-11 = M × 0-5 = L Record the rating on the	2	
	Jiist 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	1	
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	1	
Total for D 5 Add the points in the boxes above	2	
Rating of Landscape Potential If score is: 3 = H X 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): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. • Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin. points = 1 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.	1	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	0	
Yes = 2 No = 0		
Total for D 6 Add the points in the boxes above	1	

Rating of Value If score is: ____2-4 = H ___X_1 = M ____0 = L

Record the rating on the first page

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 _x_Emergent 0 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 × Occasionally flooded or inundated 2 types present: points = 1 1 × Saturated only 1 type present: points = 0 ___Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². 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 1 If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 < 5 species 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. 0 None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points

LI 1 E Special habitat features:		
H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of checks is the number of points.		
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).		
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m	ı)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	´ 0	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered		
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are		
permanently or seasonally inundated (structures for egg-laying by amphibians)		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of		
Strata)		
Total for H 1 Add the points in the boxes above	2	
Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating	on the first page	
H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: 4.91 % undisturbed habitat + [(% moderate and low intensity land uses) 0.57 /2] = 5.195 %		
If total accessible habitat is:		
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3		
	0	
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: $\boxed{7.39}$ % undisturbed habitat + $[(\% \text{ moderate and low intensity land uses}) \boxed{4.47}/2] = \boxed{9.625} %$		
Undisturbed habitat > 50% of Polygon points = 3		
Undisturbed habitat 10-50% and in 1-3 patches points = 2	0	
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		
· · · · · · · · · · · · · · · · · · ·	-2	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2	
≤ 50% of 1 km Polygon is high intensity points = 0		
Total for H 2 Add the points in the boxes above	-2	
Rating of Landscape Potential If score is:4-6 = H1-3 = M \times < 1 = L Record the rating of	n 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 has 3 of more priority habitats within 100 in (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists 		
	0	
— It is mapped as a location for an individual WDFW priority species	ا	
— 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 habitate (listed on port page) within 100 m		
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		
Rating of Value If score is: $2 = H$ $1 = M \times 0 = L$ Record the rating	on the first nage	

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (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.

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	
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less	
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or	
contiguous freshwater wetlands. ☐Yes = Category I ☐No = Category II	
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?	
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?	
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</i>	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? ☐Yes – Go to SC 3.3 ☒No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or	
pond? □Yes – Go to SC 3.3 ☑No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4?	
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	

Wetland name or number $\underline{\mathsf{B}}$

SC 4.0. Forested Wetlands	
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions. — Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
☐ Yes = Category I ☑ No = Not a forested wetland for this section	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) ☐ Yes − Go to SC 5.1 ☑ No = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ 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) ☐ Yes = Category I ☐ No = Category II	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 ☐ Yes − Go to SC 6.1 ☑ No = not an interdunal wetland for rating 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 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	
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? \[\textstyle \text{Yes} = \text{Category III} \text{No} = \text{Category IV} \] Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	Ì

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): 🕒	Date of site visit: 06/20/18
Rated by Emily Swaim	_ Trained by Ecology? <u>✓</u> YesNo Date of training 3/31/2018
HGM Class used for rating Depressional	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete without Source of base aerial photo/map	ut the figures requested (figures can be combined).
OVERALL WETLAND CATEGORY	II (based on functions or special characteristics_ ✓

1. Category of wetland based on FUNCTIONS

	Category I — Total score = 23 - 27	
Category II – Total score = 20 -		
X	_Category III - Total score = 16 - 19	
	_Category IV – Total score = 9 - 15	

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the ap	propriate ratings	
Site Potential	М	L	L	
Landscape Potential	М	M	L	
Value	Н	М	М	TOTAL
Score Based on Ratings	7	5	4	16

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	N/A	

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	S 4.1	
(can be added to figure above)		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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)	\$ 3.3	

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 un	nit usually controlled by tides except during floods?
Σ	⊠NO – go to 2	☐ YES – the wetland class is Tidal Fringe – go to 1.1
1	1.1 Is the salinity of the water during	periods of annual low flow below 0.5 ppt (parts per thousand)?
		s a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it stuarine wetland and is not scored. This method cannot be used to
2.	The entire wetland unit is flat and pand surface water runoff are NOT s	precipitation is the only source (>90%) of water to it. Groundwater ources of water to the unit.
×	NO – go to 3 If your wetland can be classified as a	TYES – The wetland class is Flats Flats wetland, use the form for Depressional wetlands.
3.		d is on the shores of a body of permanent open water (without any of the year) at least 20 ac (8 ha) in size;
X	☑NO – go to 4 ☐YES	- The wetland class is Lake Fringe (Lacustrine Fringe)
4.	_	can be very gradual), tland in one direction (unidirectional) and usually comes from s sheetflow, or in a swale without distinct banks,
X	☑NO – go to 5	☐ YES - The wetland class is Slope
	•	l in these type of wetlands except occasionally in very small and imocks (depressions are usually <3 ft diameter and less than 1 ft
5.	Does the entire wetland unit meet The unit is in a valley, or stream stream or river, The overbank flooding occurs a	channel, where it gets inundated by overbank flooding from that

We	etland name or number <u>C</u>
X	NO – go to 6
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? <i>This means that any outlet, if present, is higher than the interior of the wetland.</i>
	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

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

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 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	3
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	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 Wetland has persistent, ungrazed, plants > ½ of area Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area Wetland has persistent, ungrazed plants < ¹ / ₁₀ of area points = 1 Wetland has persistent, ungrazed plants < ¹ / ₁₀ of area points = 0	1
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0	2
Total for D 1 Add the points in the boxes above	6
Rating of Site Potential If score is:12-16 = HX_6-11 = M0-5 = L Record the rating on the first p	age
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	1
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? 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 = HX_1 or 2 = M0 = L Record the rating on the f	irst 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	0
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 = 2 No = 0	2
Total for D 3 Add the points in the boxes above	3
Rating of Value If score is: X 2-4 = H1 = M0 = L Record the rating on the first page NOTES and FIELD OBSERVATIONS:	•

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradations and stream degradations and stream degradations.	ion
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) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2
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 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 Marks of ponding less than 0.5 ft (6 in)	3
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 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 Entire wetland is in the Flats class points = 5	0
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	1
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	1
Total for D 5 Add the points in the boxes above	2
Rating of Landscape Potential If score is: 3 = H X 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): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. • Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin. points = 1 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.	1
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 ___X_1 = M ____0 = L

Record the rating on the first page

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 _x_Emergent 1 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 × Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 × Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 1 × Saturated only 1 type present: points = 0 ___Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². 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 1 If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 < 5 species 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 Moderate = 2 points Low = 1 point All three diagrams in this row

are **HIGH** = 3points

H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of	f checks is the number of points.	
_ x Large, downed, woody debris within the wetland (> 4 in diameter and	d 6 ft long).	
_ x _ Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhangi	ng plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at lea		2
Stable steep banks of fine material that might be used by beaver or m		
slope) OR signs of recent beaver activity are present (cut shrubs or tr	rees that have not yet weathered	
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches ar	re present in areas that are	
permanently or seasonally inundated (structures for egg-laying by a	mphibians)	
Invasive plants cover less than 25% of the wetland area in every strat	um of plants (see H 1.1 for list of	
strata)		
Total for H 1	Add the points in the boxes above	6
Rating of Site Potential If score is:15-18 = H7-14 = M	Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat funct	ions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: 4.91 % undisturbed habitat + [(% moderate and low intensit	ty land uses) 0.57 /2] = 5.195 %	
If total accessible habitat is:	,	
> ¹ / ₃ (33.3%) of 1 km Polygon	points = 3	0
20-33% of 1 km Polygon	points = 2	١٥
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.	points	
Calculate: 7.39 % undisturbed habitat + [(% moderate and low intensi	ty land uses) 4.47 /2] = 9.625 %	
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 3	0
Undisturbed habitat 10-50% and > 3 patches	points = 2 points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 1 points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	points - 0	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	-2
≤ 50% of 1 km Polygon is high intensity	points = (- 2) points = 0	_
		2
Total for H 2	Add the points in the boxes above	-2
Rating of Landscape Potential If score is:4-6 = H1-3 = MX < 1 = L	Record the rating on t	ne jirst 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 pol	licies? 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 o 	r animal on the state or federal lists)	
 It is mapped as a location for an individual WDFW priority species 		1
 It is a Wetland of High Conservation Value as determined by the Depa 	rtment of Natural Resources	
 It has been categorized as an important habitat site in a local or region 	nal 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	
Rating of Value If score is: 2 = H X1 = M 0 = L	Record the rating on	the first page

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (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 \underline{C}

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Check off any criteria that apply to the wetlands. 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 SNo= 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 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 Sportino, see page 25) At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes – Go to SC 2.2 Sino – Go to SC 2.3 SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WAD Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to SC 2.2 Sino – Go to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes – Go to SC 2.2 Sino – Go to SC 2.3 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 – Go to SC 2.4 Sino = 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 – Go to SC 3.3 Sino – Not a WHCV SC 3.1. Does an area within the wetland unit have organic soil horizons, either p		
SC 1.0. Estuarine wetlands Does the wetland met 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	Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
The dominant water regime is tidal, Vegetated, and		
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 332-30-1517 Yes = Category	Does the wetland meet the following criteria for Estuarine wetlands?	
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 No - Go to SC 1.2	☐ The dominant water regime is tidal,	
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 No - Go to SC 1.2	☐ Vegetated, and	
Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? □Yes = Category1 □No - Go to SC 1.2 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 un-mowed grassland. □The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. □Yes = Category1 □No = Category II SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? □Yes = Go to SC 2.2 ☑No = Go to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? □Yes = Category1 ☑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 = Category1 ☑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 = Co to SC 3.3 ☑No = No to SC 3.2 Zhose an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an imperm	☐ With a salinity greater than 0.5 ppt ☐ Yes –Go to SC 1.1 ☒No= Not an estuarine wetland	
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 \$partina, see page 25) At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. 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? SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/hnb/refdesk/datasearch/wnhpwetlands.pdf Yes = Category I	SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area	
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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 un-mowed grassland. The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. 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	☐Yes = Category I ☐No - Go to SC 1.2	
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At least % 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 No = Category 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 Xem = Go to SC 2.3 Xem = Go to SC 2.2 Xem = Xem = Go to SC 2.3 Xem = Xem = Go to SC 2.2 Xem = Xem = Go to SC 2.3 Xem = Xem = Go to SC 2.3 Xem = Xem = Go to SC 2.2 Xem = Xem = Go to SC 2.3 Xem = Xem = Go to SC 2.2 Xem = Xem = Go to SC 2.3 Xem = Xem = Go to SC 2.4 Xem = Go to SC 2.	☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less	
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pond?	SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
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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	

Wetland name or number \underline{C}

SC 4.0. Forested Wetlands	
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions. — Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
☐ Yes = Category I ☑No = Not a forested wetland for this section	
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) □ Yes − Go to SC 5.1 ☑No = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ 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) □ Yes = Category I □ No = Category II	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 — □Yes − Go to SC 6.1 ☑No = not an interdunal wetland for rating 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 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 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	
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

Wetland name or number \underline{C}

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): D	Date of site visit: 06/20/18
Rated by Emily Swaim	_Trained by Ecology? <u>✓</u> YesNo Date of training 3/31/2016
HGM Class used for rating Depressional	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete without Source of base aerial photo/map	ut the figures requested (figures can be combined). ESRI 2018
OVERALL WETLAND CATEGORY	V (based on functions or special characteristics_✓_)
4. Catagonia of wetland based on EU	INCTIONS

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
X	_Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the ap	propriate ratings	
Site Potential	L	L	L	
Landscape Potential	М	M	L	
Value	Н	М	L	TOTAL
Score Based on Ratings	6	5	3	14

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	N/A		

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	S 4.1	
(can be added to figure above)		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	

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 en	ire unit usually controlled by tides except during floods?
Σ	⊠ N0 – go to 2	☐ YES – the wetland class is Tidal Fringe – go to 1.1
1	1.1 Is the salinity of the water d	uring periods of annual low flow below 0.5 ppt (parts per thousand)?
	, ,	ied as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it an Estuarine wetland and is not scored. This method cannot be used to
2.		and precipitation is the only source (>90%) of water to it. Groundwater IOT sources of water to the unit.
×	⊠NO – go to 3 If your wetland can be classifie	TYES – The wetland class is Flats d as a Flats wetland, use the form for Depressional wetlands.
3.	☐The vegetated part of the we plants on the surface at any	neet all of the following criteria? etland is on the shores of a body of permanent open water (without any time of the year) at least 20 ac (8 ha) in size; ater area is deeper than 6.6 ft (2 m).
×	⊠ NO – go to 4	YES - The wetland class is Lake Fringe (Lacustrine Fringe)
4.	The wetland is on a slope The water flows through t seeps. It may flow subsurf	neet all of the following criteria? slope can be very gradual), ne wetland in one direction (unidirectional) and usually comes from nce, as sheetflow, or in a swale without distinct banks, nd without being impounded.
×	⊠NO – go to 5	☐ YES – The wetland class is Slope
		pond in these type of wetlands except occasionally in very small and hummocks (depressions are usually <3 ft diameter and less than 1 ft
5.	The unit is in a valley, or s stream or river,	neet all of the following criteria? ream channel, where it gets inundated by overbank flooding from that urs at least once every 2 years.

We	etland name or number <u>U</u>	
X	NO – go to 6 NOTE : The Riverine unit can contain depression flooding	☐ YES – The wetland class is Riverine ons that are filled with water when the river is not
6.		ression in which water ponds, or is saturated to the eans that any outlet, if present, is higher than the interior
] NO – go to 7	▼YES – The wetland class is Depressional
7.	flooding? The unit does not pond surface water	area with no obvious depression and no overbank or more than a few inches. The unit seems to be The wetland may be ditched, but has no obvious natural
]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	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	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.

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. <u>Characteristics of surface water outflows from the wetland</u> :	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2	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. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	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	
Wetland has persistent, ungrazed, plants $> \frac{1}{2}$ of area points = 3	1
Wetland has persistent, ungrazed plants $> \frac{1}{100}$ of area points = 1	
Wetland has persistent, ungrazed plants $< \frac{1}{10}$ of area points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:	
This is the area that is ponded for at least 2 months. See description in manual.	
Area seasonally ponded is > ½ 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	3
Rating of Site Potential If score is:12-16 = H6-11 = MX_0-5 = L	age
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	1
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? 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 = HX_1 or 2 = M0 = L Record the rating on the	irst 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 = $1 \text{ No} = 0$	0
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 = 2 No = 0	2
Total for D 3 Add the points in the boxes above	3

NOTES and FIELD OBSERVATIONS:

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation	ion
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) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2
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 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 Marks of ponding less than 0.5 ft (6 in)	0
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 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	0
Total for D 4 Add the points in the boxes above Rating of Site Potential If score is: 12-16 = H 6-11 = M × 0-5 = L Record the rating on the	2
	Jirst 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	
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	1
Total for D 5 Add the points in the boxes above	1
Rating of Landscape Potential If score is:3 = HX_1 or 2 = M0 = L	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): • 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 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.	1
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 ___X_1 = M ____0 = L

Record the rating on the first page

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 _x_Emergent 0 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 0 × Saturated only 1 type present: points = 0 ___Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². 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 1 If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 < 5 species 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 Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points

H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of checks is the number of points.		
 Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). 		
Standing snags (dbh > 4 in) within the wetland		
Standing snags (ubit > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)		
	1	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	'	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered		
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are		
permanently or seasonally inundated (structures for egg-laying by amphibians)		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of		
strata)		
Total for H 1 Add the points in the boxes above	2	
Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L	n 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: $\boxed{4.91}$ % undisturbed habitat + $\boxed{(\% \text{ moderate and low intensity land uses)}} \boxed{0.57}$ /2] = $\boxed{5.195}$ %		
If total accessible habitat is:		
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3		
	0	
· ·		
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: $\boxed{7.39}$ % undisturbed habitat + [(% moderate and low intensity land uses) $\boxed{4.47}$ /2] = $\boxed{9.625}$ %		
Undisturbed habitat > 50% of Polygon points = 3	0	
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)	-2	
\leq 50% of 1 km Polygon is high intensity points = 0		
Total for H 2 Add the points in the boxes above	-2	
Rating of Landscape Potential If score is: $4-6 = H$ $1-3 = M$ $\times < 1 = L$ Record the rating on		
nating of Landscape rotential in score is. 4-0 - if 1-3 - ivi 7. 1 - L netoru the ruting of	ine jiist 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	0	
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		
Rating of Value If score is: 2 = H 1 = M × 0 = I	n the first name	

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (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.

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?	
$\Box Yes = \textbf{Category I} \Box No - Go to \textbf{SC 1.2}$	
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 ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
The wetland has at least two of the following features: tidal channels, depressions with open water, or	
contiguous freshwater wetlands. □Yes = Category I □No = Category II	
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?	
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 図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? Use the key	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or	
pond? \square Yes – Go to SC 3.3 \square No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4?	
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	

SC 4.0. Forested Wetlands	
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>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) □ Yes − Go to SC 5.1 ☑No = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ 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) □ Yes = Category I □ No = Category II	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 ☐ Yes − Go to SC 6.1 ☑ No = not an interdunal wetland for rating	
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)? SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? SC 6.3. SC 6.4. SC 6.5. S	
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?	
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): ⊏	Date of site visit:
Rated by Emily Swaim	_Trained by Ecology? <u>✓</u> YesNo Date of training 3/31/2016
HGM Class used for rating Depressional	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete without Source of base aerial photo/map	ut the figures requested (figures can be combined). S ESRI 2018
OVERALL WETLAND CATEGORY	$^{\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$

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

X Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the app	propriate ratings	
Site Potential	L	L	L	
Landscape Potential	М	M	L	
Value	Н	M	L	TOTAL
Score Based on Ratings	6	5	3	14

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CAT	CATEGORY	
Estuarine	I	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	N/A		

Maps and figures required to answer questions correctly for Western Washington

<u>Depressional Wetlands</u>

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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	S 4.1	
(can be added to figure above)		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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)	\$ 3.3	

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 e	entire unit usually contro	lled by tides except during floods?	
Σ	☑NO – go to 2	YES – the w	etland class is Tidal Fringe – go to 1.1	
1	1.1 Is the salinity of the water	during periods of annua	l low flow below 0.5 ppt (parts per thousand)?	
	3.5	ssified as a Freshwater Tid t is an Estuarine wetland	YES - Freshwater Tidal Fringe dal Fringe use the forms for Riverine wetlands. If a and is not scored. This method cannot be used to	it
2.	The entire wetland unit is fl and surface water runoff ar		e only source (>90%) of water to it. Groundwate o the unit.	r
×]NO – go to 3 <i>If your wetland can be classi</i>	fied as a Flats wetland, us	TYES – The wetland class is Flats se the form for Depressional wetlands.	
3.	Does the entire wetland uni ☐The vegetated part of the plants on the surface at a ☐At least 30% of the open	wetland is on the shores ny time of the year) at lea	s of a body of permanent open water (without any ast 20 ac (8 ha) in size;	V
X	NO – go to 4	□YES - The wetland cl	ass is Lake Fringe (Lacustrine Fringe)	
4.	_	e (slope can be very grade the wetland in one direct arface, as sheetflow, or in	ual), ction (unidirectional) and usually comes from a swale without distinct banks,	
X	NO – go to 5		☐ YES – The wetland class is Slope	
			wetlands except occasionally in very small and ons are usually <3 ft diameter and less than 1 ft	
5.	Does the entire wetland uni The unit is in a valley, or stream or river, The overbank flooding of	stream channel, where i	t gets inundated by overbank flooding from that	
	_	-		

We	Vetland name or number <u>E</u>	
X	NO − go to 6	ot
6.	Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to surface, at some time during the year? <i>This means that any outlet, if present, is higher than the of the wetland.</i>	
	NO – go to 7 ▼YES – The wetland class is Depressional	
7.	7. Is the entire wetland unit located in a very flat area with no obvious depression and no overba 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 outlet.	
	NO − go to 8	

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

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 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	2
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	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 Wetland has persistent, ungrazed, plants > $\frac{1}{10}$ of area Wetland has persistent, ungrazed plants > $\frac{1}{10}$ of area Wetland has persistent, ungrazed plants < $\frac{1}{10}$ of area points = 0	0
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0	0
Total for D 1 Add the points in the boxes above	2
Rating of Site Potential If score is: 12-16 = H 6-11 = M \times 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	1
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? 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 = HX_1 or 2 = M0 = 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	0
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 = 2 No = 0	2
Total for D 3 Add the points in the boxes above	3
Rating of Value If score is: \times 2-4 = H1 = M0 = L Record the rating on the first page	

NOTES and FIELD OBSERVATIONS:

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	ion
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) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2
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 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 Marks of ponding less than 0.5 ft (6 in) points = 0	0
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 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 Entire wetland is in the Flats class points = 5	0
Total for D 4 Add the points in the boxes above	2
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	1
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	1
Total for D 5 Add the points in the boxes above	2
Rating of Landscape Potential If score is: 3 = H X 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): • 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 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.	1
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	0
Yes = 2 No = 0 Total for D 6 Add the points in the boxes above	1

Rating of Value If score is: ____2-4 = H ___X_1 = M ____0 = L

Record the rating on the first page

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 _x_Emergent 0 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 × Occasionally flooded or inundated 2 types present: points = 1 1 × Saturated only 1 type present: points = 0 ___Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². 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 1 If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 < 5 species 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 Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points

H 1.5. Special habitat features: Check the habitat features: Check the habitat features: Check the habitat features that are present in the wetland. Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). Standing snags (dsh > 4 nij within the wetland (> 4 in diameter and 6 ft long). Standing snags (dsh > 4 nij within the wetland (> 4 in diameter and 6 ft long). Standis steep banks of he are night wetland. Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) At least % ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally in undated (structures for egg-loying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strator) Total for H 1		
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). Standing snags (dbh > 4 in) within the wetland (> 4 in diameter and 6 ft long). Standing snags (dbh > 4 in) within the wetland (> 4 in) diameter and 6 ft long). 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) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) over a stream (or ditch) in or ditch) in over a stream (or ditch) in or ditch) in over a stream (or ditch) in or ditch) in or ditch in or	H 1.5. Special habitat features:	
	Check the habitat features that are present in the wetland. The number of checks is the number of points.	
	Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
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 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) over a stream (or ditch) in the supposed) At least ½ a cof thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibitions)		
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Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) At least % ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strato) Total for H 1 Add the points in the boxes above 2 Rating of Site Potential If score is:15-18 = H7-14 = MX 0-6 = L Record the rating on the first page H 2.0. Does the landscape have the potential to support the habitat functions of the site? H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: 4.91 % undisturbed habitat + (% moderate and low intensity land uses) 0.57 /2 = 5.195		0
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) _At least % a co ft hin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibitions)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of stratur) Total for H 1 Add the points in the boxes above 2 Rating of Site Potential If score is:15-18 = H7-14 = MX 0-6 = L		
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	where wood is exposed)	
invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1	At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are	
Total for H 1 Add the points in the boxes above 2 Rating of Site Potential If score is:15-18 = H7-14 = MX 0-6 = L	permanently or seasonally inundated (structures for egg-laying by amphibians)	
Total for H 1 Add the points in the boxes above 2 Rating of Site Potential If score is:15-18 = H7-14 = MX 0-6 = L	Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
Rating of Site Potential If score is:15-18 = H7-14 = MX 0-6 = L		
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: [4.91] % undisturbed habitat + [(% moderate and low intensity land uses) 0.57]/2] = 5.195 % If total accessible habitat is: > \(^1/_2\) (3.3.3%) of 1 km Polygon 20-33% of 1 km Polygon 4.0% of 1 km Polygon 5.0% of 1 km Polygon 5.0% of 1 km Polygon is high intensity land uses) 1.0% of 1 km Polygon is high intensity land use 5.0% of 1 km Polygon is high intensity land use 5.0% of 1 km Polygon is high intensity land use 5.0% of 1 km Polygon is high intensity land use 5.0% of 1 km Polygon is high intensity land use 5.0% of 1 km Polygon is high intensity land use 5.0% of 1 km Polygon is high intensity land use 5.0% of 1 km Polygon is high intensity land use 1.0% Add the points in the boxes above 4.3.0. 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: 1.0% It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 1.1% It is a wetland of High Conservation Value as determined by the Department of Natural Resources 1.1% It is a wetland of High Conservation Value as determined by the Department of Natural Resources 1.1% It is a poped as a location for an individual WDFW priority species 1.1% It is a wetland of High Conservation Value as determined by the Department of Natural Resources 1.1% It is a poped as a location for an individual WDFW priority species 1.1% It is a wetland of High Conservation Value as determined by the Departm	Total for H 1 Add the points in the boxes above	2
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: 4.91 % undisturbed habitat + [(% moderate and low intensity land uses) 0.57 /2] = 5.195 % If total accessible habitat is: > 1/2 (33.3%) of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 > 10-19% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: [7.39 % undisturbed habitat in 1 km Polygon around the wetland. Calculate: [7.39 % undisturbed habitat + [(% moderate and low intensity land uses) 4.47 /2] = 9.625 % Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat 10-50% and > 3 patches points = 0 Points = 0 Points = 0 O Rating of Landscape Potential If score is:46 = H13 = MX < 1 = L	Rating of Site Potential If score is:15-18 = H7-14 = M \times 0-6 = L Record the rating on	the first page
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: 4.91 % undisturbed habitat + [(% moderate and low intensity land uses) 0.57 /2] = 5.195 % If total accessible habitat is: > 1/2 (33.3%) of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 > 10-19% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: [7.39 % undisturbed habitat in 1 km Polygon around the wetland. Calculate: [7.39 % undisturbed habitat + [(% moderate and low intensity land uses) 4.47 /2] = 9.625 % Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat 10-50% and > 3 patches points = 0 Points = 0 Points = 0 O Rating of Landscape Potential If score is:46 = H13 = MX < 1 = L		
Colculate: 491 % undisturbed habitat + [(% moderate and low intensity land uses) 0.57 /2 = 5.196 % fl total accessible habitat is:		Ī
If total accessible habitat is: > ½ (33.3%) of 1 km Polygon		
> 1/3 (33.3%) of 1 km Polygon 20-33% of 1 km Polygon 20-30% of 1 km Polygon around the wetland. 20-30% of 1 km Polygon around the wetland. 20-30% of 1 km Polygon around the wetland. 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land use 20-30% of 1 km Polygon is high intensity land uses 20-30% of 1 km Polygon is high intensity land uses 20-30% of 1 km Polygon is high intensity land uses 20-30% of 1 km Polygon is high intensity land uses 20-30% of 1 km Polygon is high intensity land uses 20-30% of 1 km Polygon is high intensity land uses 20-30% of 1 km Polygon is high intensity land uses 20-30% of 1	Calculate: 4.91 % undisturbed habitat + [(% moderate and low intensity land uses) 0.57 /2] = 5.195 %	
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20-33% of 1 km Polygon 10-19% of 1 km Polygon 20-30% of P	$> \frac{1}{2}$ (33.3%) of 1 km Polygon points = 3	
10-19% of 1 km Polygon		0
A contact Colculate: Colc	· ·	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: [7.39] % undisturbed habitat + [(% moderate and low intensity land uses) 4.47]/2] = 9.625 % Undisturbed habitat > 50% of Polygon Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat > 1 km Polygon Points = 1 Undisturbed habitat > 1 km Polygon if f > 50% of 1 km Polygon is high intensity land use ≤ 50% of 1 km Polygon is high intensity land use ≤ 50% of 1 km Polygon is high intensity Add the points in the boxes above Total for H 2 Add the points in the boxes above Add the points in the boxes above ■ 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: □ 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 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		
Calculate: 7.39 % undisturbed habitat + [(% moderate and low intensity land uses) 4.47 /2] = 9.625 % points = 3 Undisturbed habitat > 50% of Polygon points = 2 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 land use points = 0 Total for H 2 Add the points in the boxes above points = 0 Rating of Landscape Potential: If score is:4-6 = H1-3 = MX < 1 = L	· · · · · · · · · · · · · · · · · · ·	
Undisturbed habitat > 50% of Polygon Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat 20% of 1 km Polygon Points = 1 Undisturbed habitat 20% 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 \$ 50% of 1 km Polygon is high intensity land use \$ 50% of 1 km Polygon is high intensity Points = 0 Total for H 2 Add the points in the boxes above O Rating of Landscape Potential: If score is:4-6 = H1-3 = M	H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
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Site does not meet any of the criteria above points = 0	points = 1	
	Site does not meet any of the criteria above points = 0	

Rating of Value If score is: 2 = H 1 = M $\times 0 = L$

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (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.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Check off any criteria that apply to the wetlands. 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 SNo= 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 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 Sporting, see page 25) At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes – Go to SC 2.2 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 WNIPP/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 – Go to SC 3.3 No = Not a WHCV 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		
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The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.		
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? SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? 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 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? SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? 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? SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? 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.		
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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		
Conservation Value? SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category		
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category		
Yes = Category I		
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		
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? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? □ Yes - Go to SC 3.3 ☑No - Go to SC 3.2 SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? □ Yes - Go to SC 3.3 ☑No = Is not a bog SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? □ Yes = Is a Category I bog □ No - Go to SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.		
Yes - Contact WNHP/WDNR and go to SC 2.4	• =	
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? SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? 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? SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? 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.		
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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		
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? \[\textsup Yes - Go to \textsup C \textsup 3.3 \textsup No = \textsup not a \textbox bog \] SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? \[\textsup Yes = \textsup s \textsup Category \textsup bog \textsup No - Go to \textsup 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.	more of the first 32 in of the soil profile?	
pond?	SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? 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.		
cover of plant species listed in Table 4? \square Yes = Is a Category I bog \square 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.		
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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.		
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	

Wetland name or number $\underline{\mathsf{E}}$

SC 4.0. Forested Wetlands		
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>		
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 		
☐ Yes = Category I ☑ No = Not a forested wetland for this section	1	
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) □ Yes − Go to SC 5.1 ☑No = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ 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) □ Yes = Category I □ No = Category II		
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 ☐ Yes − Go to SC 6.1 ☑ No = not an interdunal wetland for rating		
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)? SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? SC 6.3. SC 6.4. SC 6.5. S		
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?		
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form		

Wetland name or number $\underline{\mathsf{E}}$

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): F	Date of site visit: 06/21/18
Rated by Richard Peel, Rachael Hyland	_Trained by Ecology? <u><</u> YesNo Date of training 6/29/16
HGM Class used for rating Depressional	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete without Source of base aerial photo/map	ut the figures requested (figures can be combined). Esri Arc GIS
OVERALL WETLAND CATEGORY	(based on functions <u>v</u> or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27	
X	_Category II - Total score = 20 - 22
	_Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the ap	propriate ratings	
Site Potential	Н	M	Н	
Landscape Potential	М	M	L	
Value	Н	M	Н	TOTAL
Score Based on Ratings	8	6	7	21

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	N/A	

Maps and figures required to answer questions correctly for Western Washington

<u>Depressional Wetlands</u>

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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	S 4.1	
(can be added to figure above)		
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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	

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 HCM classes. In this case, identify which hydrologic criteria in

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?
XNO − go to 2 1.1 Is the salinity of the water during	☐ YES – the wetland class is Tidal Fringe – go to 1.1 ng periods of annual low flow below 0.5 ppt (parts per thousand)?
NO - Saltwater Tidal Fringe (If your wetland can be classified	Estuarine)
2. The entire wetland unit is flat and and surface water runoff are NOT	d precipitation is the only source (>90%) of water to it. Groundwater Γ sources of water to the unit.
⊠NO – go to 3 If your wetland can be classified a	$\ \ \ \ \ \ \ \ \ \ \ \ \ $
•	and is on the shores of a body of permanent open water (without any ne of the year) at least 20 ac (8 ha) in size;
	ES - The wetland class is Lake Fringe (Lacustrine Fringe)
<u>e</u>	pe can be very gradual), wetland in one direction (unidirectional) and usually comes from , as sheetflow, or in a swale without distinct banks,
⋈ N0 − go to 5	☐ YES – The wetland class is Slope
-	ond in these type of wetlands except occasionally in very small and ummocks (depressions are usually <3 ft diameter and less than 1 ft
5. Does the entire wetland unit me on the unit is in a valley, or stream or river, The overbank flooding occurs	am channel, where it gets inundated by overbank flooding from that

We	Wetland name or number <u>F</u>	
×	NO − go to 6 NOTE : The Riverine unit can contain depressions th flooding	☐ YES – The wetland class is Riverine at are filled with water when the river is not
6.	6. Is the entire wetland unit in a topographic depression surface, at some time during the year? This means to of the wetland.	
	□ NO – go to 7	S – The wetland class is Depressional
7.	7. Is the entire wetland unit located in a very flat area of flooding? The unit does not pond surface water more maintained by high groundwater in the area. The woutlet.	e than a few inches. The unit seems to be
X	☑ NO – go to 8	S – 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	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	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.

<u>DEPRESSIONAL AND FLATS WETLANDS</u>	
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. <u>Characteristics of surface water outflows from the wetland</u> :	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet).	
points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet.	1
points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1	
Wetland has all disconstructed, of slightly constituted, surface outlet that is permanently flowing boints = 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	4
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	
Wetland has persistent, ungrazed, plants > ½ of area points = 3	3
Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area points = 1	
Wetland has persistent, ungrazed plants $< \frac{1}{10}$ of area points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:	
This is the area that is ponded for at least 2 months. See description in manual.	
Area seasonally ponded is > ½ total area of wetland points = 4	4
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	12
Total for D 1 Add the points in the boxes above Rating of Site Potential If score is: X 12-16 = H 6-11 = M 0-5 = L Record the rating on the first p	
Rating of Site Potential If score is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first p	
,	
Rating of Site Potential If score is: X 12-16 = H 6-11 = M 0-5 = L Record the rating on the first production of the site?	page
Rating of Site Potential If score is: X 12-16 = H 6-11 = M 0-5 = L Record the rating on the first production of the site? 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	oage 0
Rating of Site Potential If score is: X 12-16 = H 6-11 = M 0-5 = L Record the rating on the first production of the site? 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 D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0 D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0 1 0
Rating of Site Potential If score is: X 12-16 = H 6-11 = M 0-5 = L Record the rating on the first production of the site? 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 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 1
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Rating of Site Potential If score is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. 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 D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0 D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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? Source Yes = 1 No = 0 Total for D 2 Add the points in the boxes above	0 1 0 0 1
Rating of Site Potential If score is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. 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 D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0 D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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? Source Yes = 1 No = 0 Total for D 2 Add the points in the boxes above	0 1 0 0 1
Rating of Site Potential If score is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. 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 D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0 D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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? Source Yes = 1 No = 0 Total for D 2 Add the points in the boxes above Rating of Landscape Potential If score is:3 or 4 = HX 1 or 2 = M0 = L Record the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating on the points in the sources of the rating of the points in the sources of the rating of the points in the sources of the rating of the points in the sources of the points	0 1 0 0 1
Rating of Site Potential If score is: X_12-16 = H6-11 = M0-5 = L Record the rating on the first process. 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 D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0 D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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? Source Yes = 1 No = 0 Total for D 2 Add the points in the boxes above Rating of Landscape Potential If score is:3 or 4 = HX_1 or 2 = M0 = L Record the rating on the points in the boxes above 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	0 1 0 0 1 1 first page
Rating of Site Potential If score is: X_12-16 = H6-11 = M0-5 = L Record the rating on the first process. Place of the landscape have the potential to support the water quality function of the site? 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 D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0 D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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? Source Yes = 1 No = 0 Total for D 2 Add the points in the boxes above Rating of Landscape Potential If score is:3 or 4 = H X 1 or 2 = M0 = L Record the rating on the process of the store of the site valuable to society? 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 Yes = 1 No = 0	0
Rating of Site Potential If score is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. The state of the site is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. The state of the site is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. The state of the site is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. The state of the site is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. The state is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. The state is: X 12-16 = H6-11 = M0-5 = L Record the rating on the first process. The state is: X 10-5 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the first process. The state is: X 10-6 = L Record the rating on the fir	0 1 0 0 1 first page 0 1

NOTES and FIELD OBSERVATIONS:

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	ion
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) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	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 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 Marks of ponding less than 0.5 ft (6 in)	3
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 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	3
Total for D 4 Add the points in the boxes above	6
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?	T
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	1
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	1
Total for D 5 Add the points in the boxes above	2
Rating of Landscape Potential If score is:3 = HX_1 or 2 = M0 = L	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): • 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 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.	1
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 ___X_1 = M ____0 = L

Record the rating on the first page

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 × Emergent 4 ★ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 × Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: × The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 × Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 2 × Saturated only 1 type present: points = 0 × Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². 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 2 If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 < 5 species 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. 2 None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points

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.									
_x_Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).									
Standing snags (dbh > 4 in) within the wetland									
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)									
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)									
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree									
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered									
where wood is exposed)									
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are									
permanently or seasonally inundated (structures for egg-laying by amphibians)									
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of									
strata)									
Total for H 1 Add the points in the boxes above	15								
Rating of Site Potential If score is: X 15-18 = H7-14 = M0-6 = L Record the rating on	the first page								
H 2.0. Does the landscape have the potential to support the habitat functions of the site?									
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).									
Calculate: $\boxed{4.91}$ % undisturbed habitat + [(% moderate and low intensity land uses) $\boxed{0.57}$ /2] = $\boxed{5.195}$ %									
If total accessible habitat is:									
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	0								
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: 7.39 % undisturbed habitat + [(% moderate and low intensity land uses) 4.47 /2] = 9.625 %									
Undisturbed habitat > 50% of Polygon points = 3									
Undisturbed habitat 10-50% and in 1-3 patches points = 2	0								
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)	-2								
≤ 50% of 1 km Polygon is high intensity points = 0									
Total for H 2 Add the points in the boxes above	-2								
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M X < 1 = L Record the rating on t	he 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? <i>Choose only the highest score</i>									
that applies to the wetland being rated.									
Site meets ANY of the following criteria: points = 2									
x 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	2								
— 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									
Rating of Value If score is: \times 2 = H 1 = M 0 = L Record the rating on	the first nage								

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

Wetland name or number F

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (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*).
- X 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 $\underline{\mathsf{F}}$

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	
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 ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
The wetland has at least two of the following features: tidal channels, depressions with open water, or	
contiguous freshwater wetlands. Yes = Category No = Category	
Contiguous resirvater wetianus.	
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?	
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?	
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</i>	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ☐ Yes – Go to SC 3.3 ☑ No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4?	
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	

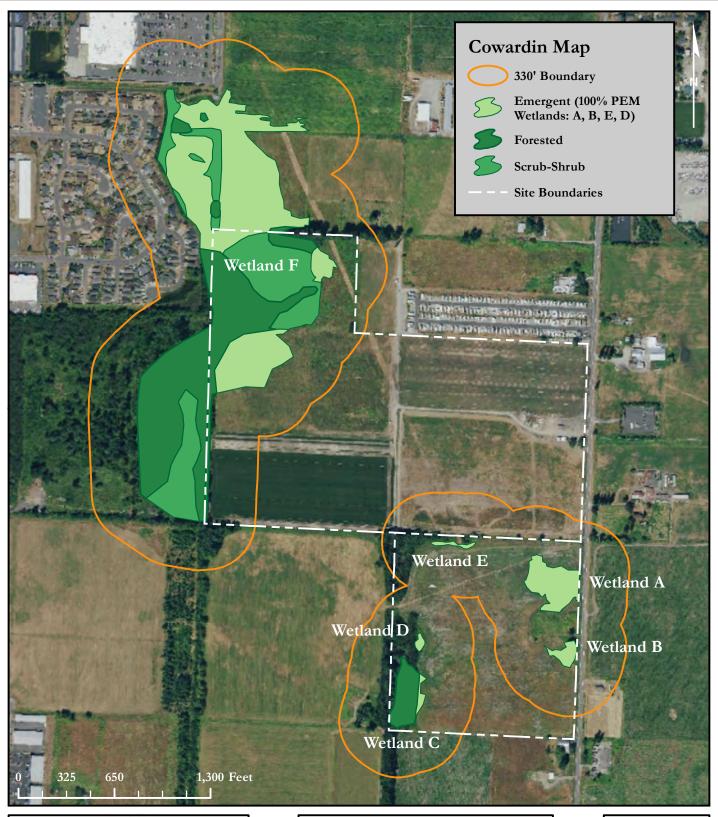
Wetland name or number $\underline{\mathsf{F}}$

SC 4.0. Forested Wetlands	
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions. — Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
☐ Yes = Category I ☑No = Not a forested wetland for this section	
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	
— 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 ¾ 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 ft 2) □Yes = Category I □No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
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)? \[\sum \text{Yes} = \text{Category I} \subseteq \text{No} - \text{Go to SC 6.2} \] 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 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	
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

Wetland name or number $\underline{\mathsf{F}}$

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Appendix G — Wetland Rating Maps





2907 Harborview Dr., Suite D, Gig Harbor, WA 98335 Phone: (253) 514-8952 Fax: (253) 514-8954 www.soundviewconsultants.com

SCHOULTES PROPERTY

15808 & 16204 51ST AVENUE NE MARYSVILLE, WA 98271-7506

SNOHOMISH COUNTY PARCEL NUMBERS: 31052800400100 & 31052800400400

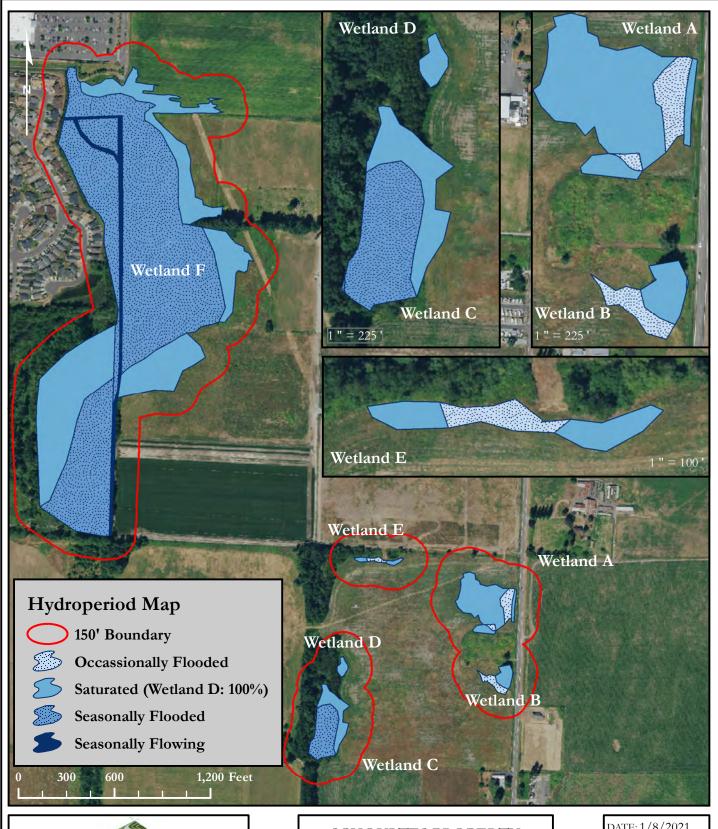
DATE: 1/6/2021

JOB: 1778.0003

BY: DLS

SCALE: 1 " = 650 '

FIGURE NO. 1 of 5





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SCHOULTES PROPERTY

15808 & 16204 51ST AVENUE NE MARYSVILLE, WA 98271-7506

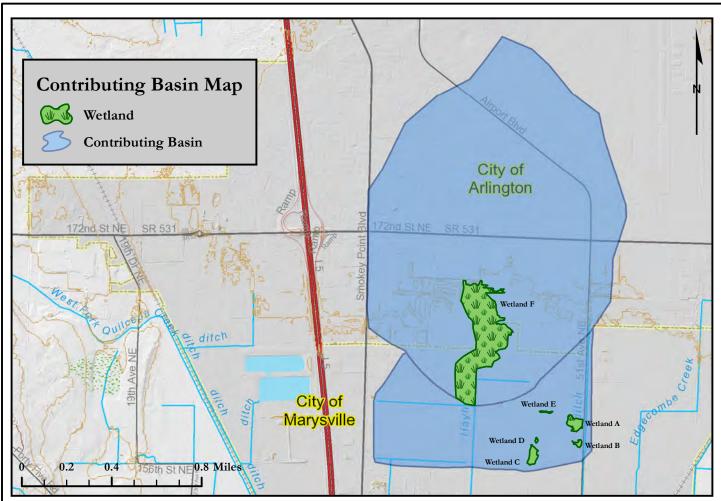
SNOHOMISH COUNTY PARCEL NUMBERS: 31052800400100 & 31052800400400

DATE: 1/8/2021 JOB: 1655.0001

BY: DLS

SCALE: 1 " = 600 '

FIGURE NO. 2 of 5



D.4.0		
D.4.3		
Aı	rea of Contributing Basin (SF)	47,851,660
Aı	rea of Wetland A (SF)	88,506
Po	ercent of Wetland A within Contributing Basin	0.185%
Aı	rea of Wetland B (SF)	19,195
Pe	ercent of Wetland B within Contributing Basin	0.040%
Aı	rea of Wetland C (SF)	59,974
Po	ercent of Wetland C within Contributing Basin	0.125%
Aı	rea of Wetland D (SF)	5,281
Pe	ercent of Wetland D within Contributing Basin	0.011%
Aı	rea of Wetland E (SF)	7,049
Po	ercent of Wetland E within Contributing Basin	0.015%
Aı	rea of Intensive Human Land Uses (SF)	40,354,658
Po	ercent of Intensive Human Land Use within	
C	ontributing Basin for Wetlands A-E	84%
Aı	rea of Contributing Basin (SF)	37,556,734
Aı	rea of Wetland F (SF)	1,854,407
Po	ercent of Wetland F within Contributing Basin	3.875%
Aı	rea of Intensive Human Land Uses (SF)	31,037,258
Pe	ercent of Intensive Human Land Use	
wi	ithin Contributing Basin for Wetland A-F	83%



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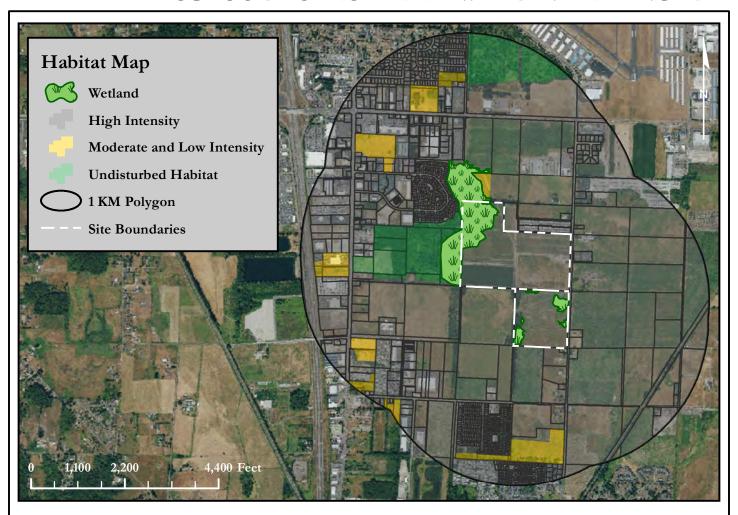
www.soundviewconsultants.com

SCHOULTES PROPERTY

15808 & 16204 51ST AVENUE NE MARYSVILLE, WA 98271-7506

SNOHOMISH COUNTY PARCEL NUMBERS: 31052800400100 & 31052800400400

DATE: 1/6/2021
JOB: 1778.0003
BY: DLS
SCALE: SEE GRAPHIC
FIGURE NO. 3 of 5



H.2.0 Wetlands A-F		
H.2.1		
	Abutting Undisturbed Habitat	4.91%
	Abutting Moderate & Low Intensity Land Uses	0.57%
	Accessible Habitat	5.19%
H.2.2		
	Undisturbed Habitat	7.39%
	Moderate & Low Intensity Land Uses	4.47%
	Undisturbed Habitat in 1 KM Polygon	9.62%
H.2.3		
	High Intensity Land Use in 1 KM Polygon	88.14%



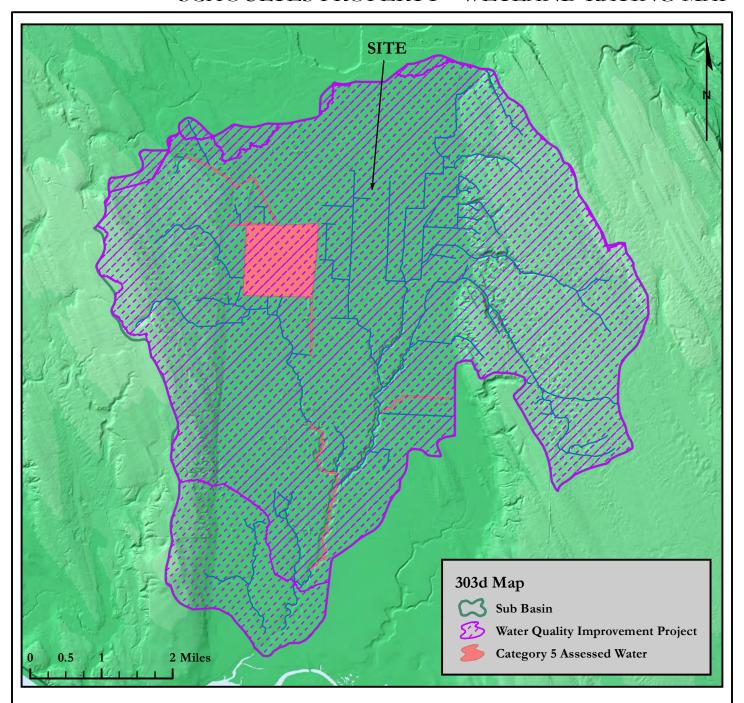
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DATE: 1/6/2021
JOB: 1778.0003
BY: DLS
SCALE: 1 " = 2,250 '
FIGURE NO. 4 of 5



Name	Pollutants	TMDL_ID	WRIA	YrApproved
Snohomish River Tributaries Bacteria TMDL	Bacteria	34	07	2001
Stillaguamish River Watershed Temperature TMDL	Temperature	73	05	2006
Snohomish River Estuary Multiparameter TMDL	Ammonia-N, CBOD, Dissolved Oxygen	48	07	2002
Stillaguamish River Watershed Multiparameter TMDL	Bacteria, Dissolved Oxygen, pH, Mercury, Arsenic	75	05	2006



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DATE: 1/6/2021
JOB: 1778.0003
BY: DLS

SCALE: 1 " = 1 mi

FIGURE NO. 5 of 5

Appendix H — Monitoring Well Photos

Monitoring Well MP-3 (Wetland A)



Monitoring Well MP-4 (Wetland A)



Monitoring Well MP-5 (Upland to Wetland A)



Monitoring Well MP-7 (Wetland B)



Monitoring Well MP-6 (Upland to Wetland B)

Monitoring Point MP-38 (Wetland C)



Monitoring Well MP-12 (Upland to Wetland C)



Monitoring Point MP-16 (Upland to Wetland E)



Monitoring Well MP-30 (Wetland F)

Monitoring Well MP-33 (Wetland F)



Monitoring Well MP-29 (Upland to Wetland F)



Monitoring Well MP-31 (Upland to Wetland F)



Monitoring Well MP-32 (Upland to Wetland F)



Monitoring Point MP-35 (Wetland F)



Appendix I — Monitoring Well and Precipitation Summary

	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
	6-	14-	20-	27-	3-	10-	17-	25-	2-	8-	15-	22-	29-	
	Mar	Mar	Mar	Mar	Apr	Apr	Apr	Apr	May	May	May	May	May	5-Jun
Precipitation	0.34	0.69	0	1.41	0	1.94	3.4	0.03	0.32	0.04	0.04	0.04	0	0.01
Monitoring Plot														
1	-12	-14.75	-38	-2.875	-15.38	-5.375	-2	-19.375	-19.75	-38	-38	-38	-38	-38
2	-11.63	-14.5	-38	-2.375	-14.25	-4.5	-1.625	-20.375	-20.75	-38	-38	-38	-38	-38
3	-6.125	-8.875	-16.125	1.25	-10.38	-0.5	0.875	-16.25	-16.5	-22.5	-38	-38	-38	-38
4	-3.375	-7.375	-20.125	-0.625	-7.375	-0.875	-1.375	-17.875	-15.375	-22.375	-21.4219	-38	-38	-38
5	-7.625	-11.75	-19.875	0.25	-12.13	-0.5	1.875	-18.125	-18.375	-38	-38	-38	-38	-38
6	-11.63	-16	-22.875	-0.5	-15.25	-3.125	-1	-21.125	-23.125	-27.125	-38	-38	-38	-38
7	-7.375	-12.125	-18.75	0.125	-11.38	-1	1.25	-17.5	-18.625	-23.75	-38	-38	-38	-38
8	-14.5	-18.75	-38	-1.375	-17.63	-4.75	-1.875	-38	-38	-38	-23.7857	-38	-38	-38
9	-11.13	-14.625	-23.5	-0.875	-14.25	-3.5	0.375	-19.75	-21.75	-38	-38	-38	-38	-38
10	-7.5	-11.75	-20.625	0	-12.25	-0.25	0.125	-18.125	-20.625	-23.25	-38	-38	-38	-38
11	-11.13	-15.25	-38	-1.375	-15	-3	-1.625	-22.25	-38	-38	-38	-38	-38	-38
12	-7.125	-11.75	-21.375	-1	-10.5	-1	-1	-17.125	-20.375	-38	-38	-38	-38	-38
13	-18.63	-21.75	-38	-2.25	-22.13	-7.125	-3.375	-38	-38	-38	-38	-38	-38	-38
14	-11.13	-16.125	-38	-0.25	-15.5	-2.125	0.625	-20.375	-23	-38	-38	-38	-38	-38
15	-11.25	-15.25	-23.125	-1	-16.63	-4.125	-1	-21.375	-21.75	-38	-38	-38	-38	-38
16	-15.13	-18.75	-38	-3	-19.25	-6.625	-3.375	-24	-38	-38	-38	-38	-38	-38
17	-12.75	-16.25	-23.75	-1.25	-17.5	-6.75	-0.25	-21.5	-22.75	-38	-38	-38	-38	-38
18	-13.25	-16.5	-38	-3.625	-17.63	-5.875	-0.625	-23.5	-23.5	-25.75	-38	-38	-38	-38
19	-19.5	-23.75	-38	-8.75	-26	-11.875	-5.125	-38	-38	-38	-38	-38	-38	-38
20	-16.75	-19.5	-38	-6.25	-16.88	-10	-2.5	-20.125	-38	-38	-38	-38	-38	-38
21	-12.25	-14.75	-21.125	-6.5	-16	-8	-2.625	-19.25	-19.625	-23.875	-38	-38	-38	-38
22	-17.13	-18.25	-23.375	-8.75	-18.88	-10.875	-6.375	-22.125	-22.625	-38	-38	-38	-38	-38
23	-23.63	-23.5	-27.75	-14.25	-24.13	-16.875	-13.25	-26.125	-26.875	-38	-38	-38	-38	-38

24	-13.38	-14	-17.125	-5.25	-14.63	-7.125	-3.75	-17	-16.625	-19.875	-20.875	-22.375	-25.125	-24.625
25	-15.38	-14	-23.875	-3.23	-14.03	-10.375	-2.375	-20.875	-21.5	-24.25	-27.0938	-27.7188	-29.5938	-38
26	-22.38	-23	-23.873	-13	-25.63	-14.875	-9.375	-25.5	-24.625	-38	-38	-38	-38	-38
20	-22.30	-23	-30	-13	-23.03	-14.073	-7.373	-23.3	-24.023	-30	-30	-30	-38	-36
27	-13	-13.125	-17.125	-3.125	-14.75	-3.75	0.875	-15.375	-15.375	-18.125	-21.2813	-22.9063	-24.7813	24.7813
28	-12.5	-13	-16.125	-4.5	-16.38	-4.375	-1.875	-15.125	-16.5	-19.625	-21.1563	-22.7813	-24.7813	30.7813
29	-12.63	-10.75	-14.875	-2	-12.75	-1.875	-0.5	-11.375	-13.12	-17.25	-20.2031	-22.0781	-23.2031	- 19.4531
30	-3.625	-1.5	-3.875	-0.125	-2.875	-1.875	-0.375	-2.5	-3.125	-6.375	-13.0313	-21.6563	-25.9063	24.9063
31	-12.88	-13.25	-16.875	-3.625	-14.13	-5.25	-3.25	-14.75	-14.375	-19.875	-21.1406	-23.0156	-26.3906	25.3906
32	-17.25	-16.75	-22.375	-5.875	-18.75	-9.75	-4.5	-19.5	-20.75	-24.625	-38	-38	-38	-38
33	-6.5	-6.75	-10	-0.625	-8.5	-3.25	-0.875	-9	-11	-13.625	-15.3125	-16.8125	-19.4375	- 19.4375
34	-18	-18.25	-24.375	-8	-19.25	-9.25	-4.875	-20.75	-23.125	-24.75	-38	-38	-38	-38
35	2	7.25	4.625	8.875	4	6.5	7.875	5.625	4	-3.5	4.75	4.25	3.25	3
36	5	6	6	9	7	8.625	9.125	7.125	6.375	5.5	6	4.75	2.5	3
37	-13.63	-16.875	-23.875	-1.625	-16.5	-3.5	-0.875	-22.875	-23	-31	-38	-38	-38	-38
38	2	10	-8	1	9	1	1.375	-18	-18	-38	-38	-38	-38	-38
39	N/A	N/A	-27.875	-6.75	-20.38	-10.25	-2.625	-23.875	-25.5	-29.375	-38	-38	-38	-38
40	N/A	N/A	-38	-11.5	-24	-13	-6.625	-27.5	-28.5	-29.625	-38	-38	-38	-38
41	N/A	N/A	-38	-14.75	-27.13	-16	-7.25	-38	-38	-27.125	-38	-38	-38	-38
42	N/A	N/A	-16.25	-4.25	-14	-3.375	-2.625	-12.75	-14.75	-16.125	-17.8542	-18.9792	-19.9792	- 19.7292

Notes:

- Precipitation volume in inches. Data obtained from the NOAA (http://w2.weather.gov/climate/xmacis.php?wfo=sew) for Seattle-Tacoma International airport. Blue highlights data where water table elevations at or above 12 inches were observed for at least 14 continuous days during the monitoring period.
- Yellow highlights data where water table elevations were below the -38-inch extent of the monitoring well. The actual water table elevation is not known in these instances.

Appendix J — Qualifications

All field inspections, jurisdictional wetland boundary delineations, habitat assessments, and supporting documentation, including this *Wetland Delineation and Fish and Wildlife Habitat Assessment Report* prepared for the *Rex Development* project site were prepared by, or under the direction of, Jon Pickett of SVC.

Jon Pickett

Associate Principal

Professional Experience: 10+ years

Jon Pickett is an Associate Principal and Senior Scientist with a diverse background in environmental and shoreline compliance and permitting, wetland and stream ecology, fish and wildlife biology, mitigation compliance and design, and environmental planning and land use due diligence. Jon oversees a wide range of large-scale industrial, commercial, and multi-family residential projects throughout Western Washington, providing environmental permitting and regulatory compliance assistance for land use entitlement projects from feasibility through mitigation compliance. Jon performs wetland, stream, and shoreline delineations and fish & wildlife habitat assessments; conducts code and regulation analysis and review; prepares reports and permit applications and documents; provides environmental compliance recommendation; and provides restoration and mitigation design.

Jon earned a Bachelor of Science degree in Natural Resource Sciences from Washington State University and Bachelor of Science and Minor in Forestry from Washington State University. Jon has received 40-hour wetland delineation training (Western Mountains, Valleys, & Coast and Arid West Regional Supplements) and regularly performs wetland, stream, and shoreline delineations. Jon is a Whatcom County Qualified Wetland Specialist and Wildlife Biologist and is a Pierce County Qualified Wetland Specialist. He has been formally trained by WSDOE in the use of the Washington State Wetland Rating System 2014, How to Determine the Ordinary High-Water Mark (Freshwater and Marine), Using Field Indicators for Hydric Soils, and the Using the Credit-Debit Method for Estimating Mitigation Needs.

Kyla Caddey, PWS, Certified Ecologist

Senior Environmental Scientist Professional Experience: 7 years

Kyla Caddey is a Senior Environmental Scientist with a diverse background in stream and wetland ecology, wildlife ecology and conservation, wildlife and natural resource assessments and monitoring, and riparian habitat restoration at various public and private entities. Kyla has field experience performing in-depth studies in both the Pacific Northwest and Central American ecosystems which included various environmental science research and statistical analysis. Kyla has advanced expertise in federal- and state-listed endangered, threatened, and sensitive species surveys and assessment of aquatic and terrestrial systems throughout the Puget Sound region. She has completed hundreds of wetland delineations and has extensive knowledge and interest in hydric soil identification. As the senior writer, she provides informed project oversight and performs final quality assurance / quality control on various types of scientific reports for agency submittal, including: Biological Assessments/Evaluations; Wetland, Shoreline, and Fish and Wildlife Habitat Assessments; Mitigation Plans, and Mitigation Monitoring Reports. She currently performs wetland, stream, and shoreline

delineations and fish and wildlife habitat assessments; prepares scientific reports; and provides environmental permitting and regulatory compliance assistance to support a wide range of commercial, industrial, and multi-family residential land use projects.

Kyla earned a Bachelor of Science degree in Environmental Science and Resource Management from the University of Washington, Seattle with a focus in Wildlife Conservation and a minor in Quantitative Science. She has also completed additional coursework in Comprehensive Bird Biology from Cornell University. Ms. Caddev is a Certified Professional Wetland Scientist (PWS #3479) through the Society of Wetland Scientists and Certified Ecologist through the Ecological Society of America. She has received 40-hour wetland delineation training (Western Mtns, Valleys, & Coast and Arid West Regional Supplement), is a Pierce County Qualified Wetland Specialist and Wildlife Biologist, and is a USFWS-approved Mazama pocket gopher survey biologist. Kyla has been formally trained through the Washington State Department of Ecology, Coastal Training Program, and the Washington Native Plant Society in winter twig and grass, sedge, and rush identification for Western WA; Using the Credit-Debit Method in Estimating Wetland Mitigation Needs; How to Determine the Ordinary High Water Mark; Using Field Indicators for Hydric Soils; How to Administer Development Permits in Washington Shorelines; Puget Sound Coastal Processes; and Forage Fish Survey Techniques. Additionally, she has received formal training in preparing WSDOT Biological Assessments.

Laura Livingston

Senior Environmental Planner Professional Experience: 8 years

Laura Livingston is an Environmental Planner with a background in water quality monitoring, invasive species monitoring, wildlife monitoring, wilderness stewardship, and erosion control projects. Laura has field experience working on natural resources projects, with an emphasis on stream and river projects, in the Northwest, Northeast, and Southwest United States. She has also worked on a variety of environmental science research, grant, and teaching projects requiring scientific writing, science communication, laboratory work, and statistical analysis. She currently performs ordinary high water delineations; conducts environmental code analysis; and prepares environmental assessment and mitigation reports, biological evaluations, and permit applications to support clients through the regulatory and planning process. Laura has a particular interest in shoreline projects and has prepared a variety of application materials to support projects within Shoreline Master Program jurisdictions.

Laura earned a Master of Science degree in Environmental Science from Washington State University, Pullman. She has received training from the Washington State Department of Ecology in How to Administer Shoreline Development Permits in Western Washington's Shorelines, Determining the Ordinary High Water Mark, the revised Washington State Wetland Rating System, Puget Sound Coastal Processes, How to Conduct a Forage Fish Survey, and Using the Credit-Debit Method for Estimating Mitigation Needs. Laura has also received training from the Washington State Department of Transportation in Biological Assessment Preparation for Transportation Projects and is listed by WSDOT as a junior author for preparing Biological Assessments. Laura is interested in stormwater management and has received a certificate in Low Impact Development Design from the Washington Stormwater Center.

Rachael Hyland, PWS, Certified Ecologist

Senior Environmental Scientist Professional Experience: 9 years Rachael Hyland is a Senior Environmental Scientist with extensive wetland and stream delineation and regulatory coordination experience. Rachael has a background in wetland and ecological habitat assessments in various states, most notably Washington, Connecticut, Massachusetts, Rhode Island, and Ohio. She has experience in assessing wetland, stream, riparian, and tidal systems, as well as complicated agricultural and disturbed sites. She currently performs wetland, stream, and shoreline delineations and fish and wildlife habitat assessments; conducts environmental code analysis; and prepares environmental assessment and mitigation reports, biological evaluations, and permit applications to support clients through the regulatory and planning process for various land use projects. She also has extensive knowledge of bats and their associated habitats and white nose syndrome (*Pseudogymnoascus destructans*), a fungal disease affecting bats which was recently documented in Washington.

Rachael earned a Bachelor of Science degree in Ecology and Evolutionary Biology from the University of Connecticut, with additional ecology studies at the graduate level. Rachael is a Professional Wetland Scientist (PWS #3480) through the Society of Wetland Scientists as well as a Certified Ecologist through the Ecological Society of America. She has completed 40-hour wetland delineation training for Western Mountains, Valleys, & Coast and Arid West Regional Supplement, in addition to formal training for the Northcentral and Northeast supplement, and experience with the Midwest, Eastern Mountains and Piedmont, and Atlantic and Gulf Coast supplements. She has also received formal training from the Washington State Department of Ecology in the Using the Revised 2014 Wetland Rating System for Western Washington, How to Determine the Ordinary High Water Mark, Navigating SEPA, Selecting Wetland Mitigation Sites Using a Watershed Approach, and Wetland Classification. Rachael has also received training from the Washington State Department of Transportation in Biological Assessment Preparation for Transportation Projects and is listed by WSDOT as a junior author for preparing Biological Assessments.