

CRITICAL AREAS STUDY FOR

8619 36th Avenue NE

Tax Parcel Nos. 00459600000202 & 00459600000301

Acre Project #19078

Prepared By:

Acre Environmental Consulting, LLC. 17715 28th Ave. NE Lake Forest Park, WA 98155 (206) 450-7746

For:

CH Office, LLC PO Box 14424 Mill Creek, WA 98082

December 12, 2019

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ATTACHMENTS:

- 1. VICINITY MAP
- 2. WETLAND DETERMINATION DATA FORMS (4 DATA POINTS ON-SITE)
- 3. WETLAND RATING FORM FOR WESTERN WASHINGTON (1 RATING FORM)
- 4. SITE PHOTOGRAPHS
- 5. CRITICAL AREAS STUDY MAP SHEET CA1.00

SITE DESCRIPTION

On December 3, 2019 *Acre Environmental Consulting, LLC* visited the approximate 1.24-acre site located at 8619 36th Avenue NE in the City of Marysville, Washington. The site is further located as a portion of Section 21, Township 30N, Range 5E, W.M. The parcel numbers for this property are 00459600000202 and 00459600000301. The purpose of this site visit was to locate regulated critical areas on and adjacent to the subject site. Surrounding land use is comprised of commercial development to the west, residential development to the north and south, and Quilceda Creek and an associated wetland to the east.

Access to this site is from 36th Avenue NE located along the western boundary of the property. This property is generally flat and contains an existing duplex on the southern lot. The majority of the site is occupied by maintained lawn. A steep, forested slope is located in the eastern portion of the site and grades to a Category II wetland associated with Quilceda Creek (Type S stream) located just east of the property. In the City of Marysville, Category II wetlands and Quilceda Creek are each provided a 100-foot protective buffer measured from the delineated wetland edge or ordinary high water mark of the steam. Per MMC22E.010.220(3)b, "any stream adjoined by a wetland or other adjacent habitat area shall have the buffer which applies to the wetland or other habitat area unless the stream buffer requirements are more expansive". In this instance, the 100-foot wetland buffer is the more restrictive buffer.

PROJECT DESCRIPTION

The applicant is proposing to construct a commercial building and associated infrastructure on the western portion of this property. This project has been designed so that no work will occur in the on-site buffer or associated building setback. Due to careful project design, no adverse environmental impacts and no net loss of ecological functions will occur as a result of this project.

METHODOLOGIES OF CRITICAL AREAS DETERMINATION

On December 3, 2019 Acre Environmental Consulting, LLC conducted a site visit to locate wetlands and streams on and adjacent to the subject site. The methods used for delineating, classifying, and rating the critical areas in the project area are consistent with current Federal, State, and Snohomish County requirements. At the time of our December 3, 2019 site investigation, the weather was cloudy with a temperature of 50 degrees Fahrenheit.

Wetlands were identified using the routine methodologies described in the <u>U.S. Army Corps of Engineers Wetland Delineation Manual</u> produced in 1987 and the <u>U.S. Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region produced in May 2010 (hereinafter referred to as "the Corps Regional Supplement"). The Corps Regional Supplement is designed for concurrent use with the 1987 Corps Wetland Delineation Manual and all subsequent versions. The 2010 Regional Supplement provides technical guidance and procedures for identifying and delineating wetlands that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act. Where differences in the two documents occur, the Corps Regional Supplement takes precedence over the Corps Manual for applications in the Western Mountains, Valleys, and Coast Region.</u>

According to the federal methodologies described above, identification of wetlands is based on a three-factor approach involving indicators of hydrophytic vegetation, hydric soils, and the presence or evidence of persistent hydrology. Except where noted in the manuals, the three-factor approach discussed above requires positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology, to make a determination that an area is a regulated wetland. Using the aforementioned manuals, the procedure for making a wetland determination include the following:

- 1.) Examination of the site for hydrophytic vegetation (species present/percent cover);
- 2.) Examination for the presence of hydric soils in areas where hydrophytic vegetation is present; and
- 3.) The final step is determining if wetland hydrology exists in the area examined under the first two steps.

Per industry standards, *Acre Environmental Consulting, LLC* examined the entire project site. Per current City of Marysville requirements, *Acre Environmental Consulting, LLC* also assessed adjacent properties within 200 feet of the proposed project limits, to the maximum extent possible without entering adjacent properties. While a detailed assessment of Critical Areas on adjacent properties was not possible due to the lack of legal access, *Acre Environmental Consulting, LLC* conducted a review of all available information to assess the presence of off-site Critical Areas within 200 feet of the subject site. This review is necessary to determine if any regulated Critical Areas exist off-site which would cause associated protective buffers to extend onto the property and affect the development proposal.

In addition to on-site field reviews, *Acre Environmental Consulting, LLC* examined aerial photographs and topographical data on Snohomish County's PDS Map Portal system. Web soil survey maps produced by the Natural Resources Conservation Service (NRCS), National Wetlands Inventory (NWI) maps produced by the U.S. Fish and Wildlife Service (USFWS), SalmonScape fish distribution maps produced by the Washington Department of Fish and

Wildlife (WDFW), and StreamNet fish distribution maps produced by Pacific States Marine Fisheries Commission.

BOUNDARY DETERMINATION FINDINGS

Wetlands were classified according to the U.S. Fish and Wildlife Service (USFWS) Cowardin system <u>Classification of Wetlands and Deepwater Habitats of the United States</u> (Cowardin et al., 1979) and rated, by categories, according to the Washington State Department of Ecology <u>Wetland Rating Form for Western Washington: 2014 Update</u>, as required by the City of Marysville Municipal Code, Chapter 22E.010 (Critical Areas Management). Buffers are also determined by this chapter.

Wetland

HGM Class: Depressional

Cowardin: Palustrine, Forested wetland, Broad-leaved Deciduous, Seasonally Flooded/Saturated

(PFO1E)

Ecology Rating: Category II

City of Marysville Rating: Category II, 100' Buffer

This wetland is located immediately east of the subject property and is associated with Quilceda Creek. It appears that this wetland unit meets the criteria to be rated as a Depressional wetland rather than a Riverine wetland based on the following: The subject wetland unit is located outside of the mapped FEMA floodway (100 Year flood) and is located several feet higher than the frequently flooded portion of the wetland adjacent to the stream, based on topography from Snohomish County's PDS Map Portal system. As a result, the subject wetland unit does not appear to be frequently flooded by overbank flow from Quilceda Creek (flooded at least once in two years). There is a visible difference in vegetation between the Riverine wetland unit and the subject Depressional wetland unit. The vegetation in the Riverine unit appears to be comprised of hardhack (*Spiraea douglasii*, FacW) and willow (*Salix* spp.) while vegetation in the subject wetland unit is represented by the species described below which are less tolerant of frequent disturbance. Finally, none of the field indicators of a Riverine wetland, including scour marks, recent sediment deposits, bent or damaged vegetation resultant from flooding, layered sediment deposits, or flood marks, were observed in the subject wetland.

Based on the above, and using guidance provided by the <u>Washington State wetland rating</u> <u>system for western Washington (2014 Update)</u>. This hydrogeomorphic (HGM) class depressional wetland received a total score for functions of 20 points (8 points for Water Quality Functions, 6 points for Hydrologic Functions, and 6 points for Habitat Functions) on the

DOE <u>Wetland Rating Form for Western Washington: 2014 Update</u>. Wetlands with scores between 20 and 22 points for all functions are classified as Category II wetlands per MMC 22E.010.100. In the City of Marysville, Category II wetlands typically receive 100-foot protective buffers from their delineated edge. The buffer of this wetland extends on to the subject site.

Vegetation in the subject wetland is represented by a canopy of red alder (*Alnus rubra*, Fac), and western red cedar (*Thuja plicata*, Fac), with salmonberry (*Rubus spectabilis*, Fac), vine maple (*Acer circinatum*, Fac), lady fern (*Athyrium filix-femina*, Fac), and reed canarygrass (*Phalaris arundinacea*, FacW) in the understory. Soils in this wetland have a Munsell color of black (10YR 2/1) with a texture of muck from 0 to 18 inches below the surface. Soils were saturated to the surface during our December 3, 2019 site visit.

Quilceda Creek - Type S

Cowardin: Riverine, Lower Perennial, Streambed, Mud (R2SB5)

City of Marysville Rating: Type S stream, 100' Buffer

Located approximately 165 feet east of the subject site at its nearest point Quilceda Creek is inventoried by the City of Marysville as an Urban Conservancy Shoreline of the State. Quilceda Creek flows south towards Possession Sound and is known to support both resident and anadromous fish including, candidate Coho salmon (*Oncorhynchus kisutch*), threatened Bull trout (*Salvelinus confluentus*), threatened fall and summer Chinook salmon (*Oncorhynchus tshawytscha*), threatened summer and winter Steelhead (*Oncorhynchus mykiss*), and unlisted cutthroat trout (*Oncorhynchus clarki*). In the City of Marysville, Quilceda Creek is provided a 100-foot protective buffer measured from the ordinary high water mark of the steam. Per MMC22E.010.220(3)b, "any stream adjoined by a wetland or other adjacent habitat area shall have the buffer which applies to the wetland or other habitat area unless the stream buffer requirements are more expansive". In this instance, the 100-foot wetland buffer is the more restrictive buffer.

Non - Wetland

The majority of the subject site is represented by maintained lawn. Typical vegetation in the lawn is represented by colonial bentgrass (*Agrostis capillaris*, Fac), tall fescue (*Schedonorus arundinaceus*, Fac), oxeye daisy (*Leucanthemum vulgare*, FacU), and English plantain (*Plantago lanceolata*, FacU). Typical soils in the lawn area have a Munsell color of dark brown (10YR 3/3), with a texture of sandy loam from 0 to 18 inches below the surface. Soils were moist during our December 3, 2019 site visit. The slope in the eastern portion of the property that grades to the off-site wetland and stream is forested, represented by a canopy of western red cedar (*Thuja plicata*, Fac), and big leaf maple (*Acer macrophyllum*, FacU), with hazelnut (*Corylus cornuta*, FacU), snowberry (*Symphoricarpos albus*, FacU), sword fern (*Polystichum munitum*, FacU), and

Oregon grape (*Berberis nervosa*, FacU) in the understory. Typical soils on the slope have a Munsell color of brown (10YR 4/3), with a texture of fine sandy loam from 0 to 18 inches below the surface. Soils were dry during our December 3, 2019 site investigation.

NATURAL RESOURCE CONSERVATION SERVICE SOILS DESCRIPTION:

The Natural Resources Conservation Service (NRCS) mapped the subject property as being underlain by Ragnar fine sandy loam, 0 to 8 percent slopes on the flat, western portion of the site, Ragnar fine sandy loam, 8 to 15 percent slopes on the slope in the eastern portion of the property, and Norma loam in the off-site wetland associated with Quilceda Creek.

The NRCS describes the Ragnar series as a moderately well drained soil on outwash plains. The surface layer is typically a dark brown fine sandy loam about two inches thick. The upper part of the subsoil is dark brown and brown sandy loam about 22 inches thick. Included in this unit are areas of Everett, Indianola, Pastik and Wilson soils on terraces and outwash plains. Included areas make up about 15 percent of the total acreage.

Norma loam is described as a very deep poorly drained soil in depressional areas on outwash plains and till plains. It formed in alluvium. Typically the surface layer is very dark gray loam about 10 inches thick. The subsoil is dark grayish brown sandy loam about 18 inches thick. Included in this unit are small areas of soils that have a surface layer and subsoil of silt loam and soils that have a gravelly and sandy subsoil. Also included are areas of Bellingham and Custer soils and Terric medisaprists in depressional areas. Included areas make up about 15 percent of the total acreage. Permeability of this soil is moderately rapid. Available water capacity is moderate. This soil is listed as hydric in the Hydric Soils List for Washington.

BUILDING SETBACKS

Per MMC22E.010.380 (Building setbacks). "Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the edges of all critical area buffers or from the edges of all critical areas, if no buffers are required. The following may be allowed in the building setback area:

- (1) Landscaping;
- (2) Uncovered decks;
- (3) Building overhangs, if such overhangs do not extend more than 18 inches into the setback area; and
- (4) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to water quality regulations as adopted. (Ord. 2852 § 10 (Exh. A), 2011)."

EXISTING FUNCTIONS AND VALUES ANALYSIS

The methodologies for this functions and values analysis are based on professional opinion developed through past field analyses and interpretations. This assessment pertains specifically to the subject stream and wetland system, but is typical for assessments of similar systems throughout western Washington. The three main functions provided by wetlands include water quality, stormwater / hydrologic control, and wildlife habitat. The on-site wetland and stream corridor is forested, dominated by native trees and shrubs. The majority of the wetland buffer on the subject site is represented by maintained lawn / pasture.

Quilceda Creek provides important functions including hydrologic transport, transport of solids (suspended and dissolved), and habitat for a variety of fish and wildlife species. As discussed previously in this report, Quilceda Creek provides habitat for anadromous and resident salmonid fish species. The wetland associated with this stream aids in water quality and hydrologic control, resulting in cleaner water entering the stream's channel. The established trees and shrubs within the wetland and a portion of the on-site buffer provide important ecological functions. The root action of this vegetation serves to aid with soil / bank stabilization, thus reducing erosion and sedimentation among the stream channel. In addition, the large trees within the wetland and buffer provide a future source of large woody debris (LWD) to the stream and wetland. Large woody debris is known to increase functions within stream channels, including reducing water velocity, providing shade for fish and other aquatic species, and habitat for terrestrial species. In addition to the LWD recruitment, the trees and shrubs among the riparian corridor also aid in the recruitment of organic matter to the stream and wetland environments.

Wetlands in western Washington often contain necessary wildlife habitat resources such as food, water, thermal cover, and hiding cover in close proximity, and the undisturbed vegetated areas within this stream corridor provide a secure corridor for wildlife movement. The subject wetlands provide a moderate level of habitat for wildlife species as evidenced by Habitat Function scores on the Wetland Rating Form for Western Washington: 2014 Update of 6. Due to its vegetative structure, the subject wetland provides habitat for use by many terrestrial wildlife species including birds and mammals. The wetland and associated buffers provide protected habitat, which becomes increasingly important as areas become further populated with humans and habitat areas become fragmented. The wetland and stream adjacent to the subject site are part of a large, contiguous tract of native vegetation. This connectivity results in protected habitat corridors which provide wildlife with increased access to forage and cover resources, maintain species richness and diversity, and decrease the potential for conflict with humans and domestic pets.

The subject wetland and associated stream likely provide habitat for many species of wildlife.

The following avian species were detected on-site: American robin (*Turdus migratorius*), black-capped chickadee (*Poecile atricapillus*), house finch (*Carpodacus mexicanus*), and song sparrow (*Melospiza melodia*).

The established vegetation within the wetland and on the slope portion of the buffer serves to intercept rain fall before it strikes the soil, thereby reducing erosion and improving water quality. Furthermore, the dense vegetation and adsorbent soils serve to trap sediment and pollutants and provide increased water quality functions that aid in a reduction of sediment which results in cleaner water leaving the site. The association of this wetland with Quilceda Creek allows it to moderate stream flows by adsorbing water during storm events and slowly releasing it during periods of lower flows. This reduces peak flooding and helps to protect downstream habitat and ecological resources.

The grasses and forbs in the lawn / pasture portion of the buffer likely serve to filter sediment and pollutants from overland flow, thus improving water quality. However, the lack of vegetative structure limits the potential wildlife habitat value for this area.

TERMS & CONDITIONS

The environmental consulting work conducted, including this Critical Areas Study (collectively the "Services") is supplied to CH Office, LLC (the "Client") as a means of determining whether any wetlands, streams, and/or fish and wildlife habitats regulated by the City of Marysville Critical Areas Regulations exist on, or adjacent to the site. The Services are provided in accordance with the following General Terms and Conditions (the "Terms"). In accepting the Services provided by *Acre Environmental Consulting*, LLC ("Acre"), the Client voluntarily enters into and agrees to the binding effect of the following Terms.

This report is intended to provide information deemed relevant in the Client's attempt to comply with the regulations currently in effect. The work for this report has conformed to the standard of care employed by professional ecologists in the Pacific Northwest. All other representations or warranties, whether express or implied, are hereby disclaimed concerning the work or this report. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions. If such conditions exist or arise, the information contained in this report may be rendered inaccurate or incomplete based upon those conditions. Acre acts solely as an independent contractor in providing the Services to the Client, and nothing in the provision of such Services shall be construed as creating an agency, partnership, joint venture or other similar legal relationship between Acre and the Client.

Please note that Acre did not provide detailed analyses of other permitting requirements not discussed in this report (i.e., structural, drainage, geotechnical, or engineering requirements).

The laws applicable to Critical Areas are subject to varying interpretations. While Acre observed professional industry standards when completing this review, the information included in this report does not guarantee approval by any federal, state, and/or local permitting agencies. Therefore, all work on this property should not commence until permits have been obtained from all applicable agencies. If there are any questions regarding this report, please contact me at 206.450.7746.

Acre Environmental Consulting, LLC.

Louis Emenhiser

Principal Wetland Ecologist

Jais Emler

Professional Wetland Scientist #1680

REFERENCES

Cowardin, et al, 1979. <u>Classification of Wetlands and Deepwater Habitats of the United States.</u> U.S.D.I. Fish and Wildlife Service. FWS/OBS-79/31. December 1979.

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

Hruby, T. 2014. Washington State wetland rating system for western Washington – 2014 Update. Publication #14-06-029. Olympia, WA: Washington Department of Ecology

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. <u>The National Wetland Plant List: 2016 wetland ratings.</u> Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

<u>Marysville Municipal Code.</u> Chapter 22E.010 (Critical Areas Management) December 12, 2019. Marysville, Washington.

SalmonScape. Interactive Mapping website administered by the Washington Department of Fish and Wildlife. http://wdfw.wa.gov/mapping/salmonscape/index.html. Website last visited on December 12, 2019.

StreamNet. Fish Data for the Northwest. Administered by the Pacific States Marine Fisheries Commission. http://www.streamnet.org/. Website last visited on December 12, 2019.

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)," <u>ERDC/EL TR-10-3</u>, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

U.S. Fish and Wildlife Service. National Wetlands Inventory Wetlands Mapper. http://107.20.228.18/Wetlands/WetlandsMapper.html#. Last modified October 8, 2019. Website last visited on December 12, 2019.

<u>Web Soil Survey.</u> United States Department of Agriculture. Natural Resources Conservation Service. http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm. Website last visited on December 12, 2019.



PREPARED BY:
Acre Environmental Consulting, LLC
17715 28th Avenue NE
Lake Forest Park, WA 98155
Phone: (206) 450-7746
Email: louis@acreenvironmental.com

VICINITY MAP 8619 36TH AVE NE, MARYSVILLE, WA TAX PARCEL NOS. 00459600000202 & 00459600000301

PREPARED FOR: CH Office, LLC PO Box 14424 Mill Creek, WA 98082

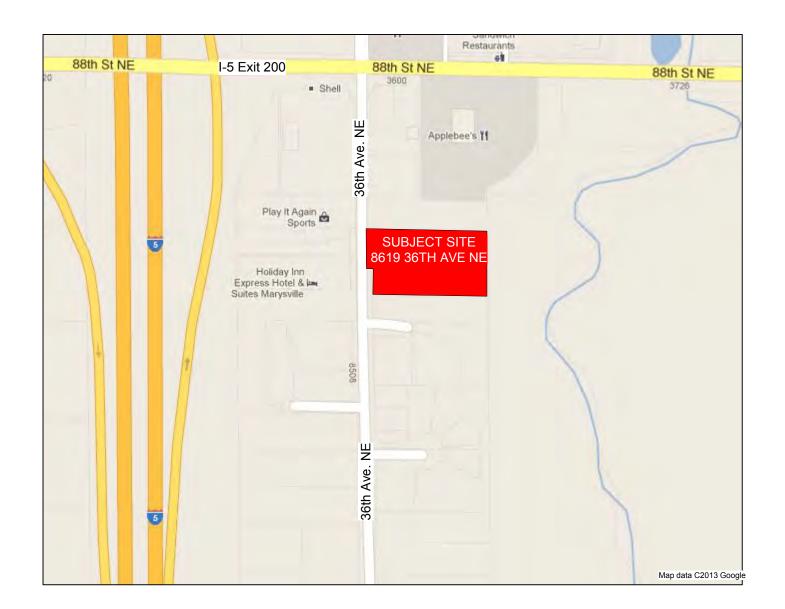
Acre Job: 19078

Drawn By:

L. Emenhiser

Date: 12.12.19

Revision #: N/A



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

Project/Site: 8619 36th Ave NE		City/Coun	ty: Marysvill	e / Snohomish County	Sampling Date: 12.03.19
Applicant/Owner: CH Office, LLC				State: WA	Sampling Point: DP1
Investigator(s): Louis Emenhiser		Section, T	ownship, Ra	nge: S21, T30N, R5E, V	V.M.
Landform (hillslope, terrace, etc.): Stream Valley					
					Datum:
Soil Map Unit Name: Norma Loam				NWI classific	
Are climatic / hydrologic conditions on the site typical for					
Are Vegetation, Soil, or Hydrology	-				oresent? Yes _ ✓ _ No _
Are Vegetation, Soil, or Hydrology				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site ma					,
Hydrophytic Vegetation Present? Yes _ ✓	No				
Hydric Soil Present? Yes _ ✓ _			the Sampled		
Wetland Hydrology Present? Yes _ ✓		wit	thin a Wetlar	nd? Yes <u> ▼</u>	No
Remarks:					
Wetland associated with Quilceda Creek					
VEGETATION – Use scientific names of pla	ants.				
Tree Stratum (Plot size: 30 meters	Absolute		nt Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size: Of Meters)	<u>% Cover</u> 30	Y	? Status Fac	Number of Dominant Sp	•
2. Thuja plicata	10	Y	Fac	That Are OBL, FACW, o	or FAC: 6 (A)
3.	<u> </u>			Total Number of Domin Species Across All Stra	^
4.					(-,
10 motors	40	= Total C	Cover	Percent of Dominant Sp That Are OBL, FACW, of	
Sapling/Shrub Stratum (Plot size: 10 meters) 1. Rubus spectabilis	40	Υ	Fac+	Prevalence Index work	
2. Acer circinatum	30	Y	Fac-		Multiply by:
3		<u> </u>			$x 1 = \frac{0}{x}$
4					x 2 = 40
5.					x 3 = 420
, .	70	= Total C	Cover		x 4 = 0
Herb Stratum (Plot size: 1 meter)		V	Гоо	UPL species 0	x 5 = 0
Athyrium filix-femina Phalaris arundinacea	<u>30</u> 20	Y	FacW	Column Totals: 160	(A) <u>460</u> (B)
				Prevalence Index	$= R/\Delta = 2.87$
3				Hydrophytic Vegetation	
5				✓ Dominance Test is	
6.				✓ Prevalence Index is	
7.				Morphological Ada	ptations ¹ (Provide supporting
8.					s or on a separate sheet)
9				Wetland Non-Vasc	
10					phytic Vegetation ¹ (Explain)
11				be present, unless distu	l and wetland hydrology must urbed or problematic.
Manda Mine Otestano (Diet sine	50	= Total C	over	· ·	·
Woody Vine Stratum (Plot size:)				Hydrophytic	
1 2				Vegetation	
		= Total C	over	Present? Yes	s√ No
% Bare Ground in Herb Stratum 50					
Remarks:					

SOIL

Sampling Point: DP1

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

Depth	Matrix	•	Redo	x Feature	s			•
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 2/1	100	, ,		• •		Muck	
-							-	_
							-	
		- — –		· ——			-	
								_
		·						
1								2
	oncentration, D=Dep					ed Sand G		Location: PL=Pore Lining, M=Matrix.
=	Indicators: (Applic	able to all L			ea.)			cators for Problematic Hydric Soils ³ :
Histosol	` '	i .	Sandy Redox (2 cm Muck (A10)
	oipedon (A2)		Stripped Matrix	` '				Red Parent Material (TF2)
	stic (A3)		Loamy Mucky N	•		MLRA 1))	Other (Explain in Remarks)
	en Sulfide (A4)		Loamy Gleyed		(.)			
-	d Below Dark Surfac	e (A11)	Depleted Matrix				3, ,,	
	ark Surface (A12)	i	Redox Dark Su	` ,				cators of hydrophytic vegetation and
,	Mucky Mineral (S1)	•	Depleted Dark	`	-7)			etland hydrology must be present,
-	Gleyed Matrix (S4)		Redox Depress	ions (F8)			ul	nless disturbed or problematic.
	Layer (if present):							
Type:								/
Depth (in	ches):						Hydric S	Soil Present? Yes <u></u> No
Remarks:							·	
HYDROLO	GY							
Wetland Hy	drology Indicators:							
_	cators (minimum of o		chack all that apply	· (1)			9/	econdary Indicators (2 or more required)
	-	nie requireu,			(DO) (-			<u> </u>
	Water (A1)		Water-Sta			xcept IVIL	KA	_ Water-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)			, and 4B))			4A, and 4B)
✓ Saturation	, ,		Salt Crust	` ,			_	_ Drainage Patterns (B10)
✓ Water M	larks (B1)		Aquatic In		` '		_	_ Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydrogen	Sulfide O	dor (C1)		_	_ Saturation Visible on Aerial Imagery (C9)
Drift Dep	posits (B3)		Oxidized F	Rhizosphe	res along	Living Roo	ots (C3) 🗹	_ Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	4)		_ Shallow Aquitard (D3)
Iron Dep	oosits (B5)		Recent Iro	n Reducti	on in Tille	d Soils (Ce	6) 🗸	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted or	Stressed	Plants (D	1) (LRR A		Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	Imagery (B7)				, (,	Frost-Heave Hummocks (D7)
	Vegetated Concav				,			,
Field Obser	=		,					
Surface Wat		′os √ N⁄	o Depth (inc	shoe): 2				
Water Table			Depth (inc					,
Saturation P		′es <u> √ </u>	Depth (inc	ches):		Wetl	and Hydro	logy Present? Yes No
(includes cap	oillary fringe) corded Data (stream	nalide mon	itoring well aerial	nhotos pr	evious ins	nections)	if available	•
Describe No	coraca Data (strcan	i gauge, mon	itoring well, aerial j	onotos, pr	CVIOUS IIIS	pections),	ii availabic	•
Remarks:								

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

Project/Site: 8619 36th Ave NE	(City/Co	ounty: M	1arysville	e / Snohomish County Sampling Date: 12.03.19	
					State: WA Sampling Point: DP2	
••					nge: S21, T30N, R5E, W.M.	
Landform (hillslope, terrace, etc.): Hillslope)%
· · · · · · · · · · · · · · · · · · ·			•		Long:122.1809	
Soil Map Unit Name: Ragnar fine sandy loam, 8 to 15						
Are climatic / hydrologic conditions on the site typical for the						
Are Vegetation, Soil, or Hydrology	•				Normal Circumstances" present? Yes _ ✓ _ No _	
Are Vegetation, Soil, or Hydrology					eded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map				·	•	etc.
Hydrophytic Vegetation Present? Yes	No. ✓					
Hydric Soil Present? Yes				ampled		
Wetland Hydrology Present? Yes			within a	a wetian	nd? Yes No <u>√</u>	
Remarks:						
Slope in the eastern portion of the property.						
VEGETATION – Use scientific names of pla	nts.					
Tree Stratum (Plot size: 30 meters	Absolute		ninant Inc		Dominance Test worksheet:	
1. Thuja plicata	<u>% Cover</u> 60	Y			Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A	.)
2. Acer macrophyllum	20	Υ	Fa	acU	·	')
3.					Total Number of Dominant Species Across All Strata: 6 (B	3)
4					` `	,
Out (OL) (OL) (OL) (OL) (OL)	80	_ = Tot	tal Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: 16 (A	VB)
Sapling/Shrub Stratum (Plot size: 10 meters) 1. Corylus cornuta	20	Υ	Fa	acU	Prevalence Index worksheet:	
2. Symphoricarpos albus	10	Y		acU-	Total % Cover of:Multiply by:	
3					OBL species $0 \times 1 = 0$	
4					FACW species $0 x 2 = 0$	
5					FAC species 60 x 3 = 180	
1 motor	30	_ = Tot	tal Cover		FACU species <u>80</u> x 4 = <u>320</u>	
Herb Stratum (Plot size: 1 meter 1. Polystichum munitum	20	Y	Fa	acU	UPL species $0 \times 5 = 0$	
a Rerheris nervosa	10	Y		acU	Column Totals: <u>140</u> (A) <u>500</u> ((B)
3					Prevalence Index = B/A = 3.57	
4					Hydrophytic Vegetation Indicators:	
5					Dominance Test is >50%	
6					Prevalence Index is $\bar{A}3.0^1$	
7					Morphological Adaptations ¹ (Provide supporting)
8					data in Remarks or on a separate sheet) Wetland Non-Vascular Plants ¹	
9					Problematic Hydrophytic Vegetation ¹ (Explain)	
10					¹ Indicators of hydric soil and wetland hydrology mus	:t
11	20				be present, unless disturbed or problematic.	,,
Woody Vine Stratum (Plot size:)	30	_= Tota	al Cover			
1					Hydrophytic	
2.					Vegetation	
			al Cover		Present? Yes No ✓ _	
% Bare Ground in Herb Stratum 70 Remarks:						
Tromans.						

SOIL Sampling Point: DP2

Depth	ription: (Describe Matrix	, to the dept	n needed to document the Redox Feature	es		tile absence	oi muicators.)
(inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 4/3	100				fsl	
					_		
		- 					
¹Type: C=Co	ncentration. D=De	pletion. RM=	Reduced Matrix, CS=Covere	ed or Coated	d Sand Gra	ains. ² Loc	eation: PL=Pore Lining, M=Matrix.
			RRs, unless otherwise no				rs for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redox (S5)			2 cm	n Muck (A10)
Histic Ep	ipedon (A2)		Stripped Matrix (S6)			Red	Parent Material (TF2)
Black His			Loamy Mucky Mineral (F		MLRA 1)	Othe	er (Explain in Remarks)
	n Sulfide (A4)		Loamy Gleyed Matrix (F	2)			
	Below Dark Surface (A12)	ce (A11)	Depleted Matrix (F3)	٠,		31001:1-	ro of hydrophytic vocatation and
	rk Surface (A12) ucky Mineral (S1)		Redox Dark Surface (F6 Depleted Dark Surface (,			rs of hydrophytic vegetation and nd hydrology must be present,
-	leyed Matrix (S4)	,	Redox Depressions (F8)				s disturbed or problematic.
-	ayer (if present):	•	. to do.t 2 oprocolorio (i o	<u>, </u>			
Type:							
Depth (inc	ches):					Hydric Soil	Present? Yes No✓
Remarks:							
HYDROLO							
•	Irology Indicators		abaalaali that anala)			0	adam da dia atawa (O an maana na maina d)
	-	one required:	check all that apply)	(DO) (4 841 5		ndary Indicators (2 or more required)
-	Water (A1)		Water-Stained Lea		серт инк	KA	/ater-Stained Leaves (B9) (MLRA 1, 2,
_	ter Table (A2)		1, 2, 4A, and 4E	5)		Б	4A, and 4B)
Saturation	` '		Salt Crust (B11) Aquatic Invertebrat	oo (P12)			rainage Patterns (B10) ry-Season Water Table (C2)
Water Ma	t Deposits (B2)		Hydrogen Sulfide (aturation Visible on Aerial Imagery (C9)
	osits (B3)		, ,	` '	iving Pool	· · · · · · · · · · · · · · · · · · ·	eomorphic Position (D2)
	t or Crust (B4)		Presence of Reduc	ū	•	. ,	hallow Aquitard (D3)
_	osits (B5)		Recent Iron Reduc	` ′	,		AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or Stresse		` '	,	aised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	Imagery (B7		`	, (=:::::)		rost-Heave Hummocks (D7)
	Vegetated Concav			/		,	
Field Observ		`					
Surface Water	er Present?	Yes N	o _		_		
Water Table	Present?	Yes N	o _ ✓ _ Depth (inches):		_ [
Saturation Pr			lo _ ✓ _ Depth (inches):			ınd Hydrology	y Present? Yes No✓_
(includes cap	illary fringe)						
Describe Red	orded Data (strear	n gauge, mor	nitoring well, aerial photos, p	revious insp	pections), i	ıt avallable:	
Remarks:							

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

Project/Site: 8619 36th Ave NE		City/C	ounty: Marys	sville / Snohomish County	Sampling Date: 12.03.19
Applicant/Owner: CH Office, LLC				State: WA	Sampling Point: DP3
Investigator(s): Louis Emenhiser		Section	on, Township,	Range: S21, T30N, R5E, V	W.M.
					Slope (%): 0-2%
Subregion (LRR): LRR-A	Lat: <u>48.</u> 0	0744		Long: <u>-122.1816</u>	Datum:
Soil Map Unit Name: Ragnar fine sandy loam, 0 to 8 p					cation:
Are climatic / hydrologic conditions on the site typical for t	his time of ye	ar? Y	es _ √ _ N	o (If no, explain in R	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly	disturl	bed? A	ر "Normal Circumstances" ا	present? Yes _ ✓ _ No _
Are Vegetation, Soil, or Hydrology	_ naturally pro	blema	atic? (I	f needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	p showing	sam	pling poin	nt locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes	No _ √		la tha Cama	alad Avaa	
Hydric Soil Present? Yes	No _ ✓		Is the Samp		No _ √
Wetland Hydrology Present? Yes	No _ ✓		Within a We	100	
Remarks:					
Maintained lawn in the central portion of the s	site.				
VEGETATION – Use scientific names of pla	ınts.				
Tree Stratum (Plot size: 30 meters	Absolute % Cover		ninant Indicat cies? Status		
1				— Number of Dominant S	
2				Total Number of Domir	nant
3				Species Across All Stra	ata: <u>2</u> (B)
4			tal Cover	Percent of Dominant S That Are OBL, FACW,	
1				Prevalence Index wor	ksheet:
2.					Multiply by:
3					x 1 = 0
4					$x = \frac{0}{240}$
5					x = 3 = 240 $x = 40$
Herb Stratum (Plot size: 1 meter)		_ = Tot	tal Cover		$x = \frac{10}{50}$
1. Agrostis tenuis	50	Υ	Fac	Column Totals: 100	
2. Festuca arundinacea	30	Υ	Fac-		
3. Leucanthemum vulgare	10	N	Nol/Up	_	<u>-</u>
4. Plantago lanceolata	10	N	FacU-	<u> </u>	
5					
6				_	s A3.0 uptations ¹ (Provide supporting
7					s or on a separate sheet)
8 9				Wetland Non-Vasc	cular Plants ¹
10				•	phytic Vegetation ¹ (Explain)
11.				Indicators of hydric so be present, unless disti	il and wetland hydrology must
	100	= Tota	al Cover	be present, unless dist	
Woody Vine Stratum (Plot size:)					
1				Hydrophytic Vegetation	
2					es No✓
% Bare Ground in Herb Stratum 0		_	al Cover		
Remarks:				•	

SOIL

Sampling Point: DP3

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

Depth	Matrix	to the dept	n needed to document Redox Fea			tile absence	or marcators.
(inches)	Color (moist)	%		<u>Type</u>	Loc ²	Texture	Remarks
0-18	10YR 3/3	100				sal	
				·			
	-		·				
¹Type: C=Co	oncentration, D=De	pletion. RM=	Reduced Matrix, CS=Cov	vered or Coated	d Sand Gra	ains. ² Loc	eation: PL=Pore Lining, M=Matrix.
			RRs, unless otherwise		<u> </u>		rs for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redox (S5)			2 cm	n Muck (A10)
Histic Ep	pipedon (A2)		Stripped Matrix (S6)			Red	Parent Material (TF2)
Black His			Loamy Mucky Minera		MLRA 1)	Othe	er (Explain in Remarks)
	n Sulfide (A4)		Loamy Gleyed Matrix	, ,			
	Below Dark Surfa	ce (A11)	Depleted Matrix (F3)			31	an of harden hading a sector.
	irk Surface (A12)	•	Redox Dark Surface	` '			rs of hydrophytic vegetation and
-	lucky Mineral (S1) leyed Matrix (S4)		Depleted Dark Surface Redox Depressions (` '			nd hydrology must be present, s disturbed or problematic.
-	ayer (if present):	-	TOUGH DOPICOSIONS	,		unics	a distal sea of problematic.
Type:	, p ,						
,, <u> </u>	ches):		<u> </u>			Hydric Soil	Present? Yes No ✓
Remarks:	,						
1							
HYDROLO							
-	drology Indicators					•	
	-	one required	; check all that apply)	(5.0) (ndary Indicators (2 or more required)
	Water (A1)		Water-Stained L		cept MLR	RA W	/ater-Stained Leaves (B9) (MLRA 1, 2,
_	ter Table (A2)		1, 2, 4A, and			_	4A, and 4B)
Saturatio	` ,		Salt Crust (B11)				rainage Patterns (B10)
	arks (B1)		Aquatic Inverteb				ry-Season Water Table (C2)
	t Deposits (B2)		Hydrogen Sulfid	` ,	india a Daniel		aturation Visible on Aerial Imagery (C9)
	osits (B3)				•	. ,	eomorphic Position (D2)
_	t or Crust (B4)		Presence of Re Recent Iron Rec	` '	,		hallow Aquitard (D3)
	osits (B5) Soil Cracks (B6)		Stunted or Stres		` '	,	AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	Imagen/ (B7		•	i) (LKK A)		rost-Heave Hummocks (D7)
	Vegetated Conca			ii iveiliains)		, FI	OSE IGAVE HAMIIIIOCKS (DT)
Field Observ			~ /				
Surface Water		Yes N	lo _ ✓ _ Depth (inches)	•			
Water Table		<u> </u>	lo _ ✓ _ Depth (inches)				
Saturation Pr			lo _ ✓ _ Depth (inches)			and Hydrology	y Present? Yes No✓_
(includes cap	illary fringe)						7 1 100 HO
		n gauge, moi	nitoring well, aerial photo	s, previous insp	pections), i	f available:	
Remarks:							

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

Project/Site: 8619 36th Ave NE		City/Coun	_{ity:} Marysville	e / Snohomish County	Sampling D	ate: 12.03.1	19
Applicant/Owner: CH Office, LLC				State: WA	Sampling P	oint: DP4	
Investigator(s): Louis Emenhiser		Section, 7	Γownship, Rar	nge: S21, T30N, R5E, V	V.M.		
				convex, none): None		Slope (%):	0-2%
Subregion (LRR): LRR-A							
Soil Map Unit Name: Ragnar fine sandy loam, 0 to 8 per				NWI classifica			
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrologysi	-			Normal Circumstances" p		e ✓ No	1
Are Vegetation, Soil, or Hydrologyna				eded, explain any answer			<i>_</i> .
SUMMARY OF FINDINGS – Attach site map s							s, etc.
Hydrophytic Vegetation Present? Yes _ ✓ _ No Hydric Soil Present? Yes No _ No	?- √ —		the Sampled			,	
Wetland Hydrology Present? Yes No	o_ √ _	wi	thin a Wetlan	nd? Yes	No	<u> </u>	
Remarks:		I					
Maintained lawn in the south, central portion of	the site.						
VEGETATION – Use scientific names of plant	ts.						
Tree Stratum (Plot size: 30 meters	Absolute		nt Indicator	Dominance Test works	sheet:		
1			Status	Number of Dominant Sp That Are OBL, FACW, o			(A)
2				Total Number of Domina	ant		
3				Species Across All Strat	ta: <u>3</u>		(B)
4		= Total 0	Cover	Percent of Dominant Sp That Are OBL, FACW, o	ecies or FAC: <u>0.</u>	67	(A/B)
Sapling/Shrub Stratum (Plot size: 10 meters) 1				Prevalence Index work	ksheet:		
2.				Total % Cover of:		lultiply by:	
3.						0	
4.				FACW species 0	x 2 =	0	_
5						180	
1 motor		_= Total C	Cover	·		160	
Herb Stratum (Plot size: 1 meter) 1 Agrostis tenuis	30	Y	Fac			0	_
2. Festuca arundinacea	30	Y	Fac-	Column Totals: 100	(A)	240	_ (B)
3. Dactylis glomerata	20	Y	FacU	Prevalence Index	= B/A = 2.4	4	
4. Leucanthemum vulgare	10	N	FacU	Hydrophytic Vegetatio			_
5. Taraxacum officinale	10	N	FacU	✓ Dominance Test is	>50%		
6				✓ Prevalence Index is	5 Ā3.0 ¹		
7				Morphological Adap			ting
8				data in Remarks Wetland Non-Vascu	•	arate sneet)	
9				Problematic Hydrop		ation ¹ (Evalai	n)
10				Indicators of hydric soil			
11				be present, unless distu			iiust
Woody Vine Stratum (Plot size:)	100	= Total C	over				
1				Hydrophytic			
2.				Vegetation	/ -		
		= Total C	over	Present? Yes	s_ <u>√</u> N	NO	
% Bare Ground in Herb Stratum 0							
Remarks:							

SOIL Sampling Point: DP4

Profile Des	cription: (Describ	e to the depth	needed to docu	ment the	indicator	or confirm	the absence of	findicators.)		
Depth	Matrix			x Feature		. 2	- .	5		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> _	Rer	marks	
0-8	10YR 3/3			-			sal			
8-18	10YR 4/4	100					sal			
	-			_	· ——		-			
				_						
¹ Type: C=C	oncentration, D=D	epletion, RM=F	Reduced Matrix, C	S=Covere	d or Coate	d Sand Gr	rains. ² Locat	ion: PL=Pore Li	ning, M=Mat	rix.
Hydric Soil	Indicators: (App	licable to all L	RRs, unless othe	rwise not	ed.)		Indicators	for Problemati	c Hydric So	ils³:
Histosol	` '		Sandy Redox (S5)				Muck (A10)		
· ·	pipedon (A2)		Stripped Matrix	` '				arent Material (T	,	
	istic (A3)	•	Loamy Mucky			MLRA 1)	Other	(Explain in Rem	arks)	
	en Sulfide (A4) d Below Dark Surf	200 (411)	Loamy Gleyed		<u>2)</u>					
	ark Surface (A12)	ace (ATT)	Depleted Matri: Redox Dark Su				3Indicators	of hydrophytic v	enetation an	h
	Mucky Mineral (S1		Depleted Dark	, ,				I hydrology must	-	u
-	Gleyed Matrix (S4)		Redox Depress	•	.,			disturbed or prob		
	Layer (if present)		·					·		
Type:										_
Depth (in	ches):						Hydric Soil P	resent? Yes_	No	✓
Remarks:										
	drology Indicator			l. A			Canand	am, la dia atawa (O		
-	cators (minimum c	r one requirea;			(DO) (ary Indicators (2	-	
	Water (A1)			A, and 4B		xcept MLR		ter-Stained Leav 4A, and 4B)	es (b9) (WL	KA 1, 2,
Saturati	ater Table (A2)				,			•	210)	
	Marks (B1)		Salt Crust Aquatic In	` '	oc (P13)			inage Patterns (l -Season Water∃	•	
	nt Deposits (B2)		Hydrogen		, ,			uration Visible or		ien/ (CQ)
	posits (B3)					Living Roo	ots (C3) Geo		-	Ciy (OO)
	at or Crust (B4)		Presence		_	-		illow Aquitard (D		
_	posits (B5)		Recent Iro		•	•		C-Neutral Test (E		
	Soil Cracks (B6)					1) (LRR A)		sed Ant Mounds		()
	ion Visible on Aeria	al Imagery (B7)			`	., (=: -: -,	,	st-Heave Humm		-/
	y Vegetated Conc				,				` ,	
Field Obser	vations:									
Surface Wat	ter Present?	Yes No	o _ ✓ _ Depth (in	ches):						
Water Table	Present?	Yes No	o <u> √ </u> Depth (in	ches):						
Saturation P	resent?		o <u>√</u> Depth (in				and Hydrology F	Present? Yes	No	√
	pillary fringe)						if available:			
Describe Re	corded Data (strea	am gauge, mon	itoring well, aerial	priotos, pr	evious ins	pections), i	ir avallable:			
Damania										
Remarks:										

Wetland name or number

RATING SUMMARY - Western Washington

Name of worland (or ID 4): COCN CC STONE - WEET Date of size visit: 17.05.19
Rated by L. EMENINSET Trained by Ecology 2X Yes No Date of training 9,30.14 HGM Class used for rating DCOPESSI QUA Wetland has multiple HGM classes? X Y N

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

Source of base serial photo/map POS Map Ports. Google Enrich

OVERALL WETLAND CATEGORY | (based on functions X or special characteristics)

Category I - Total score = 23 - 27 Category III - Total score = 20 - 22 Category III - Total score = 15 - 19 Category IV - Total score = 9 - 15 Improving Hydrologic Habitat Waster Quality Circle the representate ratings (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L (H) M L H (M) L H (M) L H (M) L	core Based on	Value	andscape Potential	ite Potential		FUNCTION			E	
tal score = 23 · 27 real score = 20 · 22 otal score = 16 · 19 otal score = 9 · 15 Hydrologic Habitat Civile the representate rothings H (M) L H (M) L H (M) L H (M) L H (M) L H (M) L Graph of the representation of the score and	Ø	1 W (E)	Ξ	1		Water Quality	Category IV - T	Category III - T	Category II - To	Category 1 - To
15 Habitat Proposition rotings	6	3	# (W)	1 (W) H	Circle the up	Hydrologic	otal score • 9 -	otal score = 16	stal score = 20	tal score = 23 -
	0	J W C	H M (-)	3	proprietz ratings	1400088	 15	-19	22	27

2. Category based on SPECIAL CHARACTERISTICS of wetland

None of the above	Interdunal	Coastal Lagoon	Old Growth Forest	Mature Forest	Bog	Wetland of High Conservation Value	Estuarine	CHARACTERISTIC
×	A BE III	1 0		1	-		1 0	CATEGORY

Wettend Roding System for Western Wh. 2018 Update fluring Form - Effective January L 2015

Westand name or number A

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure
Cowardin plant classes	D13, H11, H14	2
Hydroperiods	014,612	م
Location of outlet Jose be native to map of hydroperiods/	011,041	٤
Boundary of area within LEO R of the westland from he publish to another figure.	022,052	۲
Map of the contributing basin	043,053	نوا
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undeturbed habitat.	H22 H22, H2.5	4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D3/1.032	S
Screen capture of list of TMDIs for WRIA in which unit is found (from web)	033	5

Riverine Wetlands

Map of:	to answer questions:	Figure #
Cowardin plant dasses	HIX.HIA	R
Hydroperiods	H12	
Panded depressions	RII	
Boundary of area within 150 ft of the westand (can be added to overther figure)	R24.	1
Plant cover of trees, shirths, and herbaceous plants	812,642	
Width of unit vs. width of stream from he added to another figure)	84.1	
Map of the contributing basin	822,823,852	
Tam Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and underlutted habitat	H25, H2, Z H23	
Screen capture of map of 303(d) listed waters in basin (from Icology website)	851	
Screen capture of list of TMDLs for WRIA in which unit is found (from with)	R 3.7, R 3.3	

Jake Fringe Wetlands

Map of	To answer questions:	Figure 6
Cowardin plant classes	TTT T41, HTT HT4	
Fight cover of trees, shrubs, and herbaceous plants	112	
Boundary of size within 150 ft of the westend (can be added to another figure)	122	
1 km Polygon: dired that extends 1 km from eithire wettand edge - Industing, polygons for accessible habitat and undisturbed habitat.	HZXH422HX3	
Serson capture of map of 303(d) listed waters in basic (from Ecology website)	131,132	
Screen capture of list of TMOLs for WALA in which unit is found (from web)	683	

Slope Wetlands

Muport	To answer questions:	Figure #
Cowardin plant dasses	H11, H14	
Hydroperiods	H12	
Plant tower of dense trees, shows, and herbaceous plants	513	Ī
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	54.1	
(can be asked to figure above)		
Soundary of 150 ft haffer (can be added to another figure)	514,55.1	
I ivn Polygon: årea that extends I km from enere wetland edge -including polygons for accessible habitat and undisturbed habitat	H23, H23, H21	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	53.1,53.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	553	

Wedand Rading System for Western WA: 2014 Update Bading Form - Effective January 1, 2015

Wetland name or number A

HGM Classification of Wetlands in Western Washington

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

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

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

NO - 40 to 2)

YES - the wetland class is Tidal Fringe - gn to 1.1

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

NO - Saltwater Tidal Pringe (Estuarine)

YES - Freshwater Tidal Pringe

score functions for estimatine wedends If your wetland can be classified as a Freshwater Tidal Pringe ass the James for Riberine wetlands. If it is Sultwater Tidal Fringe it is an Estwarine wetland and is not scored. This method cannot be used to

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

NO - 80 to 3

If your wetlind can be classified as a Flors wetland, use the form for Depressional wetlands YES - The westand class is Fints

 Does the entire wedland unit meet all of the following criteria? The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size:

At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO - go to 4

YES - The wedard class is Lake Pringe (Lacustrine Pringe)

4. Does the entire wetland unit meet all of the following criteria?

The water flows through the wetland in one direction (unidirectional) and usually comes from The westand is on a slope (slope can be very gradual). seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,

The water leaves the wetland without being impounded.

NO - go to 5

VES - The wedand class is Slope

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

Diges the entire wetland unit meet all of the following criteria?

The unit is in a valley, or stream channel, where it gets joundated by overbank dooding from that

The overbank flooding occurs at least once every 2 years

Welland Buring System for Western WA, 2014 Opdate Rating Form – Effective January 1, 2015

Wetland name or number A

NO - go to 6 / - We the unit can contain depressions that are filled with water when the river is not

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

NO-80 to 7

YES - The wetland class is Depressional

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

NO-go to 8

YES - The wetland class is Depressional

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

is less than 10% of the unit; classify the wedand using the class that represents more than 90% of the more of the total area of the wetland unit being rated. If the area of the H6M class listed to column 2 NOTE: Use this table only if the class that is recommended in the second column represents 10% or train frant

Salt Water Tidal Fringe and any other class of freshwater wetland	Riverine - Lake Fringe	Depressional + Lak	Depressional + Riverine along stream within boundary of depression	Slope + Lake Fringe	5jope + Depressiona	Slope + Riverine	HGM classes within the wetland unit being rated
nd any other wetland	ringe	Lake Fringe	epression	egn	onal	ñ	wetland unit
Treat as ESTUARINE	Riverine	Degressional	Depressional	Lake Fringe	Onpressional	Rivering	use in rating

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

Wetland Railing System for Western WA: 2014 Update Pating Form - Effective January 1, 7015

Wetland name or number A

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 publicing from the wetland. Wetland is a depression or that depression (QUESTION 7 on key) with no surface water leaving it for builted. Wettand has an unconstricted, or slightly constricted, surface outset that is permanently flowing. points = 1 Wetland is a find depression (QUESTICE) 7 on key, whose outlet it a permanently flowing ditor. points = 1 D 1.2. The spit 2.1 hose beautiful surface for drift sure) is true enquire than WetS definitionally less = 4. No = 0 D 1.3. Characteristics and distribution of pexistent points (Emorgent, Scrode-thind), and/or forested Characteristics of the surface of the structure has persistent, ungraved, plents > 5% of axion. Wetland has persistent, ungraved, plents > 19. of axion. D.1.4. Characteristics of seasonal portring or inundation: Total for B I Area seasonally pended is > % total area of watland Area seasonally pended is < % total area of watland Area seasonally punched it > % total area of wortand This is the area that is panded for at least 2 months. See description in manual Wattand has persistent, ungrazed plants of he of area Wetland has perastent, ungrared plants > 1/2 of area westand has an intermittently flowing stream or differ. OR highly constricted permanently flowing outlet. DEPRESSIONAL AND FLATS WETLANDS Arid the points in the boxes above points = 3 points = 1 points = 4 points = 2 points = 0 points = 2 S

Rating of Site Potential If score is: \$12-16 = H __6-11 = M ___0.5 = L Record the rating on the fortable

-	above	in the boxes	Total for D 2 Add the points in the boxes above
0	No - 0	145-1 No-0	9.2.4. Are then other sources of pollutants covering and the weekend that are not leaved in quantizms 0.2.1 to 2.37 Source. Yes 1 No.
0	Nova	765-1 No+0	D.2.3. Are there septic systems within 250 it of the wedland?
1	No = 0	Yes-1 No-0	D 2,2,45 > 10% of the area within 150 ft of the westand in land uses that generate pollutarits?
0	No - 0	Yes-1 No-0	D 2.1. Does the wetland unit receive dominates discharges?
1		e site?	D 2.0. Does the landscape have the potential to support the water quality function of the site?

Rating of Landscape Potential Ill score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the roting on the Fort page

-		
r	Add the points in the boxes above	Total for D 3 Add the points
90	Yes = 2 145 = 0	D 3.3. Has the site been identified in a watershed or local plan as important for muraturing water quality (power YES If there is a TAOK for the basin to which the unit is found?)? Yes = 2 No = 0
-	Yese1 Non0	D 3.2, is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) ass?
-	Yes-1 No-0	D.3.1. Does the weitland discharge directly (i.e., within 1 ml) to a stream, river, lake, or mation water that is on the 903(d) los? Yes. 1. No. 1.
		D 3.0. Is the water quality improvement provided by the site valuable to society?

Rating of Value If score it: X24=H 1=M 0=L Record the nating on the first page

Wetland name or number A



western to a reflection or not define soon were no surrock water requilibrillary described	Post Student	
Wetland is a fiel depression (QUESTON 7 on key), whose outlet's a permanently flowing other points = 1.	diich paints = 1	0
Wattand has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	owing points = 0	
0.4.2. Death of assigne dimine wet periods: Entimote the height of proxing above the bottom of the onlier. For wetlands with no outlet measure from the surface of permanent water or if day, the deepest part.	the outlet. For wetlands	
Marks of portraing are 3 ft or more above the surface or botters of autict.	points = 7	
Marks of portaing between 2 ft to < 3 ft from surface or bottom of outlet	paints = 5	t
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	5
The welland is a "beadwater" wattend	points = 3	1
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	
D.4.3. Contribution of the wetland to storage in the watershed: Extracte the ratio of the area of appreximation and contribution surface water to the wetland to the area of the wetland unit lengt.	opstress Bush	
The peop of the basis is less than 10 turnes the area of the unit.	points=5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	N
The area of the basin is more than 100 times the area of the unit.	points = 0	1
friting westland is in the Flats class	points = 5	
	Add the points in the bases above	a
Rading of Site Potential I if score is: 12-16 = H X 5-11 = M 0-5 = 1	Record the rating on the first page	first perif.
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	4	
D.S.T. Does the wetland receive stormwater discharges?	Ves = 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 Ma = 0	_
D.S.3. Is move than 25% of the contributing tasks of the westend covered with attentive human land uses (residential at 21 residence/in, urban, commercial, samplifure, etc.)?	and uses (residential at	-
	Add the points in the bases above	h
Pating of Landscape Potential Historie Iv. Tall X Lor 7 = M 0 = L	deput said with an Bayan and brazing	

_	Add the points in the boxes above	Total for 0.6 Add the po
٥	richal flood control plan? Yes = 2. No = 0.	D if, 2, then the size-been identified as important for flood storage or flood conveyance in a regional flood control plan? Vos. = 2 - No. = 0.
-	ral conditions that the points = 0	The existing or potential outflow from the wetland is so constrained by human or natural conditions that the watter stored by the wetland compot reach areas that flood, Exalsin why There are no problems with flooding downstream of the wetland. Points = (
	points = 2 points = 1 points = 1	 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.
	one conditions mea. as where flooding has	D. E. The Jurit of the Indicates that has fooding positions. Proper the description from best institutes another contributes measure the water story frames than one condition is most. The western despiters surfers water that would observe from down greatient into stress where from down greatients.

Rating of Value if score is: 2-4=H X1=M 0=L

Weiland Bading System for Western WA: 2014 Upilian Rading Form - Effective January 1,2015

Wetland Rating System for Western WA: 2014 Upvlink
Rating Form - Effective January, L. 2015

H 1.1. Structure of plant community: halked unside Cowardin dissession of strain within the Forested days. Dises the Consortin plant clades in the west and, Up to 30 patients may be combined for each class to meet the threshold of M oc or more than 10% of the unit if it is smaller than 2.5 or. And the number of structure sheeted. H 1.0. Does the site have the potential to provide habitat? H 1.2. Hydroperiods H 1.5 Bids will plant species H 1.4. Interspersion of habitats HABITAT FUNCTIONS - Indicators that site functions to provide important habitat may style up All three diagrams ere HIGH = 3points None - Dipoints X Emergand Count the furnise of plant species in the well and that cover at loast 10 th². Different positive of the same species can be combined to meet the size threshold end you do not have to none the species. Do not include Exercise multiol, reed conorpansys, purple bossestrife, Compation this the the species. Check the types of water regimes (hydropasiods) present within the westing. The water regime has to cover make than 10% of the westand or is as to count (see least for descriptions of hydropatiods). X Occasionally flooded or inundated N. The Farencied class has 3 out of 5 strato (range), sub-canapy, strubs, herboceaus, moss (ground-cover) that each cover 20% within the Forested polygon. Dedde from the dagrams holds whitether interspersion among Devardin plants desses (described in R.1.1), or the chases and unvegetated areas (sen include open water or mudfans) is high, incidente, low, or now, if you If you counted: > 19 species X Permanently flowing stream or river in, or adjacent to, the wetland Torested (assass where trees have > 60% cover) have four or more plant classes or three classes and open water, the rating is always high Lake Fringe wetland Permai-rely Roaded or inundated Freshwater tidal wetland Scrub-shouts (areas where shrubs have > 30% rayer) Aquatic bed Seasonally flowing streamin, or adjacent to, the wetland Saturated only Seesanally Roaded or inundated If the unit has a Forested class, check if: 5 19 species < 5 species These questions apply to wetlands of all HGM classes. LOW - 1 point A or more types present points = 3 4 structures or more: points = 4 Moderate = 2 points 2 types present; points = 1 1 type present: points = 0 1 types present: points = 2 2 structures: points = 1 3 structures: points = 3 I structure: points = 0 points = 1 points = 0 2 points + 2 W

Wetherd Rading System for Western WA: 2014 Update Rading Form - Effective January 1, 2015

Wetland name or number A

	In colar accession instructions District 20-35% of 1 km Polygon District 21-35% of 1 km Polygon District Distr
	1 Costs accessore hashors is 1 / 1, (3.3.3% of 1 km Polygon 20.33% of 1 km Polygon 2.2 Undefinited hashard in 1 km Polygon 2.2 Undefinited hashard 10.50% of Polygon 2.2 Undefinited hashard 10.50% and in 1.3 portions 2.50% of 1 km Polygon in high members 2.50% of 1 km Polygon
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	Joseph States Factor State Sta
	1024 Secretary Frances is 1024 Secretary Frances is 1024 Secretary Frances is 1024 Secretary Frances is 1025 Secretary Frances is
	1003 States of Line Polygon
	I local accessor habitat is
	Joseph Struckster Halvott is: July 18 July 18 July 19 July 18 July 18 July 18 July 18 July 18 July 18 July 18 July 18 July 18 July 18
	10 cm accessore harrons is 1/2 cm
	Joseph Strucktor (1987) July 1988 Color Polygon
	Joseph State State Fast State
	I cost accessor harror is
Annund In	I could accessive nation is:
	I could accessive nation is: \(\frac{1}{2} \) \(\frac{1}{2}
	I locks accessive nations is I/ (33.3%) of 1 km Polygon 20.33% of 1 km Polygon 10-19% of 1 km Polygon c 10% of 1 km Polygon
	If local accessors nation is If (33.3%) of 1 km Polygon 20.33% of 1 km Polygon 10.43% of 1 km Polygon
	If local advances restricts is If (33.3%) of 1 km Polygon 20.33% of 1 km Polygon
	> 1/s (33.3%) of 1 km Polygon
	TOO BE DECISION THE PROPERTY.
	If total accounts to the property of the second sec
	H 2.1. Accessible habited (Include only Natival that directly adults wetland unit). * under that habited habited \$\frac{1}{2} = 100 moderate and formulation is until until 1910 •
Appendix in the bises above 19 Appendix in the bises above 19 Appendix in the first per	H 2.0. Dons the landscape have the potential to support the habital functions of the site.
onto in the bases above 14	Rating of Site Potential if sycre is15-18 = H
Ger H 2.1 for list of	Total for H 1 Add the po
GEN H 2. T for Est of	strata
areas that are	At least it can be supposed in a supposed in
e not yet weathered	size) Of signs of resent to over activity are present (cut stands of these that have not yet weathered
rendre at feed 3.3 ft (1 m)	X undercut banks are present for at least 5.5 ft [2 m] and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or distri) at or configuous with the welland, for at least 35 ft [10 m] such as followed by the stream of the heavest or market for denoting to 30 degrees.
e-number of points.	Orged: the habitate features that are present in the methand. The reunber of cleates is the number of points. A Large, downed, woody debris within the welfland (> 4 in diameter and 6 ft long). A Stonday mass light, A left within the welfland.

Wetland Bading System for Western WA: 2014 Update Rating Form - Effective January 1, 2015 Hading of Value if score is X2=H 1=M 0=L

t

Retaid the rating on the fast page

Wetland name or number A

WDFW Priority Habitats

Priority habitats listed by WDPM (see complete descriptions of WDPW priority habitats, and the counties in which they can be owned, i.e., Wachington Department of Fish and Wildlife, 2003. Priority Habitat and Species List Olympia, Wachington 177 pp. http://weble.ea.esv/jouble.educations/20165.badbalDLisSpalit or access the list from here.

the frequency provides and additional to the

Count have many of the following princity habitats are within 330 ft [100 m] of the wethand unit MOTE: This question is independent of the lend was two week for wethand unit and the oriently habitat.

- Asymm Stands: Pure or naised 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 neilve lish and whichlie [felt descriptions in WDFW FMS report].
- Herhareous Balds: Variable size pateties of grass and forbs on shallow soils over beliefed.
- Old-growth/Mature forests: <u>Did-growth west of Classalutriest</u> Stands of at least 2 tree species, forming a multi-byered energy with obsiderat small operators with a least 8 trees/ac (20 trees/ac) = 32 to (8 to n) (Non-100 years of age. <u>Mitture forests</u> Stands with newleys distinguists conceding 21 in (83 cm) dith; crown over may be less than 100%, decaderacy, decaderacy, tumbers of Stangs, and quantity of large downed material is growth; 80-200 years old west of the Geronde crest.
- Oregon White Oak: Woodland stands of pure color or oak/confler executations where canopy coverage of the task
 component is important [foll descriptions in WDFW PHS report p. 158 see web link above].

Riparian: The area adjacent to aquatic tystems with flowing water that contains elements of both aquatic and terrestrial-coxystems which mutually influence each other.

Weatside Preiries: Horistonia, non-forested plant communities that can either take the form of a dry prairie or a wet
preirie (full descriptions in WIFFW FHS report p. 161 - see web link above).

instream: The combination of physical, blokegical, and the raical processes and conditions that metract to provide functional Life history requirements for instream fish and wildlife resources.

- Nearshore: Relatively units (or hed may shore habitats: These include Coastal Nearshore, Open Coast Nearshore, and
 Puget Sound Rearshore. (full descriptions of habitats and the definition of relatively undersurbed are as WDFW reports
 see web link on previous pages.
- Caves: A naturally accurring cavity; recess, void, or system of interconnected passages under the earth in soils, rock, (e., or other geological formations and is large enough to contain a human.
- Cliffe Greater than 25 ft [7.6 to] bigs and occurring below \$000 ft elevation
- Talms: Homogeness areas of rock entitled ratigling in overage size 0.5 6.5 ft (0.15 2.0 m), composed of hasal, and site, and so reclimentary rock, including riprap slides and mine tallings. May be associated with diffs.

Snage and Logs: Tyee are considered anapp if they are dead or dying and exhibit sufficient decay characteristics to neighb audit and are by wildlife. Priority snage have a diameter at breast beight of > 20 in (51 cm) in waters.

Westington and are a 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the superst and, and > 20 ft (6 m) large.

Note: All regelated wethooks are by definition a priority habitation are on tochded in this list because they are addressed elsewhere

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

Wetland name or number

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

8	over teather, in an imperimeable bandpain such as clay or volcance are, or that are hosting <u>paragrade</u> above, point? Yes = 50 on SS 5.3 No = 18 in the bog, You = 50 on SS 5.3 No = 18 in the bog, Yes = 18 is in the paragraph bog in the time to the cover of moses at ground level. Where it is the time to SS 5.4 NOTE: if you are uncertain about the extent of moses in the understory, you may substitute that otherion by me assume that about the extent of moses in the understory, you may substitute that otherion by me around the water that season into a hole dug at teast 16 in deep. If the pill is any then SS and the plant spaces in table the more than the understory above, understored in the pill is any then SS and the plant spaces or mocta forested in 30s cover) with Sites spince, understood in water that cactor, were the mode. Adapted to print guarder, England and cactor, or session white one, AND any of the species for combination of species (sixed in Table 4 passes) may be a the cabor under the canoapril species (or combination of species) listed in Table 4 passes have the sample to the cactor.
	\$C.3.0. Rogs: \$C.3.0. Rogs: Should be waithand (or any part of the until meet both the enterior for unit and argention in bogs? Use the key below. If you arrange it? Sy you will still need to note the waithand based on its functions. \$C.3.1. Does an area within the weithind unit have organic soil traitions, while years or mutus, thus common and the first 32 in of the soil profile? The page an area within the weithand but have organic soils, either peets or mutus, thus a list in this page. \$C.3.0. Does an area within the weithand but have organic soils, either peets or mutus, that are list into the traiter.
	SC 2.3, is the wetland in a Section/Township/Renge that contains a Natural Heritage wetland? Here / Immw.Long.ea.co.ulm.co.ulm.co.us.ps.gs.gs.gs.ch/webpostumen but No. 2.4. No. = Not. e. WHEV SC 2.4. Has Work identified the welland within the ST/R as a Worland of High Conservation Value and listed it on Here wellation? Yes = Category 1. No. = Not. a WHEV Their wellation?
8	SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their websits to be a SC 2.2. No - Go to SC 2.3. SC 2.3. It the westend scale on the WDNR database as a Wetland of High Confession Trailor. SC 2.3. It the westend scale on the WDNR database as a Wetland of High Confession Trailor.
Car. II	movined grazeland. — The wieldard has at least two of the following features held channels, degressions with open water, or configuous freshwater wellimpts: "Yes = Category II" No = Category III"
ğ	SC 1.2. Is the wetland unit at least 1 as in size and meets at least two of the following three conditions? —The wetland K relatively undersupped flows no diving, distring, filling, continetion, graming and has less than 10% core of freemeline plant species, (if non-making values are Sportford, see peage 25) —At least K of the feedework-says of the westland has a 100 ft buffer of struth, forest, or un-granted or un-
E	SC 1.1. is the wetland within a Hallonal Waldlife Refiger, Napianal Part, National Estiany Reserve, Natural Area Reserve devily-state Park or Educational, Environmental, or Scientific Reserve devily-atted under WAC 332-30-1537 Yes — Category I. — No to SC 1.2
	SC L.O. Estuarine wetlands: Does the westland meet the following criteria for Estuarine wetlands? The dominant water regime is tidal, Vagetated, and With a salinity greater than 0.5 spot. Yiu =65 to SC 1.1 (ion for an estuarine wetland)
Category	Westland Type Once of any orizon that apply to the wetland. Durie the colongry when the appropriate orizons are met.

15

Westand name or number

Cat. IV	ш
5	SC 6.3, is the unit between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little a missale of wetlands that is between 0.1 and 1.ac, or little 0.
2	
DAT II	ares en 8 or 9 for the habitat functi
	Cean Shores-Copalis: Lands west of SR 115 and SR 109 You - Go to SC 8.1 (No - not an intendenal westland for nating)
Ē	Is the welland west of the 1889 line (also called the Western Boundary of Upland Dwaeship or W8U0)? If you misser, yet you will still need to rate the westland based on its habitat functions. In practical terms that means the following garge phile trees: Long Beach Pennyala: Lands west of Still 113 — Standard Westpoot: Lands west of Still 13
	SC 6.0. Interdunal Wetlands
	— The wetland is larger than V _G ac (4350 m²)
	 At least X of the studyand edge of the wetland has a 200 ft buffer of should, forest, or unigrased or un- moved grassland.
Gt. =	 The well-and to relatively undistarted (has no disting, dilloting, filling, puttinglion, grazing), and has less than 70% cover of agreestive, opportunistic plant species rate at a faceture on a 1001.
	Yes - Go to SC 5.1. Ones the westend meet oil of the following three conditions?
Cat	 The lagoon in which the wetland is located contains pended water that is saline or bracken to 0.5 ppt! Configuration of the west in at least a pertison of the larger moved to be represented whether the containing of the larger moved.
	 The wedered lies in a degression adjacent to matter waters that is wholly or pertuitly separated from matrix waters by sanobanks; gravel banks, shingle, on, less frequently, rocks
	SC 5.0. Wetlands in Coastal Lagoons One of the wetland rives all of the following criteria of a wedland in a coastal lagoon?
DC.	Ves a Category (Not a forested webland for this section)
	species that make up the cancoy have an average diameter (dish) exceeding 21 in (33 cm).
	age OR have a diameter at treasy height (diff) of 32 in (8) cm) or more. Mature forests (west of the Cassade Cred): Stands where the Javans trees are 80-200 years old OR the
	canopy with possibly livest or Costage great; Stands of at least two tree species, forming a multi-layered gamesty with at case and found openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of
	the welland hazed on its functions.
	Does the wetland have at least <u>I contiguous acte</u> of forest that meets one of these cateria for the WA. Department of fish and Wildlife's forests as priority habitats? If you answer VIX you will still need to note.
	SC 4.0. Forested Wetlands

Wetland name or number A

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Map measurements used to determine answers for H2.0.

1km area - 62,462,780 SF

Moderate & low intensity land use (LU) - 8,975,928 SF 14%

Accessible moderate & low intensity LU - 9,703,961 SF 15%

Relatively undisturbed LU - 1,701,843 SF 3%

High Intensity Land Use - 44, 282,891 SF 71%

RATING ANSWERS FOR WETLAND A

- D1.1 & D4.1 Wetland has an unconstricted, permanently flowing stream outlet.
- D1.3 Wetland has persistent ungrazed plants > 95% of the area.
- D1.4 Area that is seasonally ponded is >1/2 total area of the wetland.
- D2.2 & D5.2 Greater than 10% of the area within 150' of Wetland A is in land use that generates pollutants and excess runoff (~60%).
- D4.3 the contributing basin for Wetland A is ~21,861,408 square feet in size / the \sim 1,653,762 square foot wetland rating unit = 13.22 (basin is 10 to 100 times the area of the unit).
- D5.3 Greater than 25% of the contributing basin of Wetland A is covered with intensive land uses.
- H1.1 & H1.4 The wetland contains emergent, scrub-shrub, and forested vegetation, with high interspersion. The forested class has 3 out of 5 strata that each cover 20% within the forested polygon.
- H1.2 The wetland contains occasionally flooded or inundated and permanently flowing stream hydroperiods.

TAX PARCEL NOS. 00459600000202 & 00459600000301

Pollution generating areas (typ.)

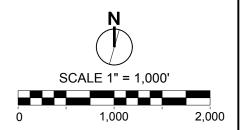
Break in wetland rating unit based on unidirectional flow.



Wetland A Rating Unit







Acre Job: 19078

Drawn By: L. Emenhiser Figure 3 of 6 Date: 12.05.2019

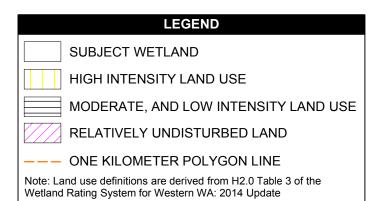
PREPARED FOR: CH Office, LLC PO Box 14424 Mill Creek, WA 98082

CONTRIBUTING BASIN MAP 8619 36TH AVE NE MARYSVILLE, WA TAX PARCEL NOS. 00459600000202 & 00459600000301

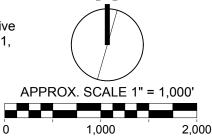
PREPARED BY:
Acre Environmental Consulting, LLC
17715 28th Avenue NE
Lake Forest Park, WA 98155
Phone: (206) 450-7746
Email: louis@acreenvironmental.com







This map was used to derive answers for questions H2.1, H2.2, and H2.3.



Acre Job: 19078 Drawn By: L. Emenhiser

PREPARED FOR: CH Office, LLC PO Box 14424 Figure 4 of 6 Date: 12.05.2019 Mill Creek, WA 98082 1KM POLYGON MAP (UNDISTURBED & ACCESIBLE HABITAT)

8619 36TH AVE NE MARYSVILLE, WA TAX PARCEL NOS. 00459600000202 & 00459600000301 PREPARED BY:

Acre Environmental Consulting, LLC 17715 28th Avenue NE Lake Forest Park, WA 98155 Phone: (206) 450-7746 Email: louis@acreenvironmental.com





- D3.1 The subject wetland discharges directly (within 1 mile) of Quilceda Creek listed on the 303(d) list.
- ${\sf D3.2\ The\ subject\ wetland\ is\ located\ in\ a\ basin\ or\ sub-basin\ with\ an\ aquatic\ resource\ listed\ on\ the\ 303(d)\ list.}$



S3.3 Based on the Department of Ecology's TMDL Boundaries webpage, TMDL's have been developed for the Quilceda Creek Basin in which this wetland rating unit is found.

Site Photographs for 8619 36th Avenue NE



Picture 1: Looking east at the subject wetland. The actual data site is at the pink ribbon.



Picture 2: Looking west at the forested buffer. The actual data site is at the pink ribbon.



Picture 3: Looking southeast at the lawn/pasture buffer.



Picture 4: Looking east at the wetland from the top of slope.



Picture 5: Looking northeast.



Picture 6: Looking east across the northern portion of the site.



Picture 7: Looking west at the existing duplex in the southwestern portion of the site.



Picture 8: Looking east at the buffer in the southeastern portion of the site.

