

# **Avia Environmental Consulting**

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# Critical Areas Report for Altman Property Mercer Island, Washington

August 26, 2020 Revised May 16, 2021

### Prepared for:

Mr. Curtis Heard Plan to Permit LLC 7233 Douglas Ave SE Snoqualmie WA 98065

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### Project location:

Address: East Mercer Way. Mercer Island, WA Parcel(s): 3024059213, 3024059001, 3024059151

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# 1 Introduction

Avia Environmental performed a critical areas assessment on the Altman properties (parcels 3024059213, 3024059001, and 3024059151) in the East Mercer Way area of Mercer Island (Figure 1) on May 15, 2020. The study revealed a single wetland on the westernmost property, parcel 3024059213 (Lot 7). This wetland is described in the following text and figures.

An Avia biologist investigated the surrounding area for a documented bald eagle nest along E Mercer Way in Engstrom Open Space during the May 15, 2020 site visit and again on and May 5, and 15, 2021. No eagles were observed in the recorded nest vicinity, and the nest itself was not visually located. Eagles were observed aurally in the nearby area.



Figure 1. Subject properties. Features are approximate and not to scale. Source: King County iMap

# 2 PROJECT AREA

The subject properties are located in the southeast quarter of Mercer Island. The island is within the upper tributary basin of Lake Washington, Water Resource Inventory Area (WRIA) 8. All three parcels are presently undeveloped with the exception of a trail, part of the adjacent Pioneer Park, running eastwest through roughly the center of Lot 7. A stream is located south of the trail, paralleling it through the property.

All parcels are heavily wooded except for a cleared area in the northwest corner of the easternmost parcel. Two large, forested public areas, Pioneer Park and Engstrom Open Space, are immediately west

and south of Lot 7. The remainder of the vicinity is primarily developed single-family lots, with a few vacant wooded properties. Lake Washington is approximately 0.13 mile east of the parcels at its nearest point, and approximately 0.3 miles from Lot 7.

# 3 METHODS

### 3.1 Documentation

A documentation search was conducted and included local inventories, the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) database, state and federal threatened and endangered species lists, the National Wetland Inventory (NWI), King County and City of Mercer Island online databases, WDFW's SalmonScape database, and Natural Resources Conservation Service (NRCS) maps.

### 3.2 Field Study

Methodology used for wetland determination was that of the Washington State Department of Ecology's (Ecology) *Wetland Identification and Delineation Manual* (Manual) and *Western Mountains, Valleys, and Coast Regional Supplement*. Soil, hydrology, and vegetation were examined throughout the property to determine whether they fit criteria set forth in the Manual. Data were recorded at four of these points, marked with orange flagging. Wetland boundaries were marked with pink flagging. Wetlands were rated using Ecology's 2014 update of the Washington State Wetland Rating System for Western Washington. The stream on Lot 7 was not marked or categorized as part of this project. The potential presence of a stream on adjacent property was investigated to the extent possible without entering the privately owned property.

# 4 FINDINGS

### 4.1 Document Review

A WDFW PHS data retrieval for this project depicted a biodiversity corridor encompassing the three parcels and extending west and south to include Pioneer Park and Engstrom Open Space. The nearest wetland on the PHS inventory is adjacent to Lake Washington to the east of the subject parcels. The NWI database depicts the stream spanning Lot 7 as a riparian wetland. SalmonScape depicts the stream crossing the parcel south of the trail but does not classify it or document use by salmonids. Salmonscape does not indicate the presence of a stream in the vicinity of the center and eastern lots, parcels 3024059001 and 3024059151.

NRCS Soil Survey categorizes soils on all three parcels as Kitsap silt loam, 15 to 30 percent slopes.

### 4.2 Field Investigation

### 4.2.1 Wetland

The only wetland identified during the site visit is located on Lot 7. Despite its presence in NWI data, the onsite portion of the stream and adjacent reaches has no wetlands associated with it. The wetland (Wetland A) boundary was marked with five pink flags.

Wetland A is a very small slope wetland entirely within the parcel boundary. It is vegetated primarily with lady fern (*Athyrium filix-femina*), horsetail (*Equisetum arvense*), and creeping buttercup (*Ranunculus repens*) under a canopy of red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), and western red cedar (*Thuja plicata*) (Appendix A, Photo 1). Dense ivy (*Hedera helix*) covers much of the wetland area. The Cowardin class is forested with an emergent ground stratum. The Western Washington Wetland Rating Form is included as Appendix B.

Soils in the wetland are dark gray (10 YR 4/1) silty loam with approximately 20% yellowish brown (10YR 5/6) redoximorphic features throughout, to at least 14-inch depth. Soils were damp but not saturated at the time of our site visit. Sparse oxidized rhizospheres were present. Wetland determination forms are included in Appendix C.

As noted, Wetland A is completely within parcel boundaries. It is north and uphill of the stream, separated from it by a heavily used recreational trail. Hydrology comes from a small, overgrown culvert in the hillside (Appendix A, Photo 2) and possibly also from runoff. Input is not heavy enough to have formed a defined bed or scour. There is no obvious outlet; rather water appears to infiltrate at the south end of the wetland. There is no evident hydrologic connection between the wetland and the stream, although a subsurface connection is possible. The position of the wetland above the stream would prevent any influence of the stream on the wetland, however.

Functional value of the onsite wetland is low for hydrology, as much of the upslope area is densely vegetated and down-gradient flooding is not a problem. Water quality function is slightly higher to the potential for stormwater to enter the wetland from a parking lot above the vegetative part of the buffer (Appendix A, Photo 3). Habitat provided by the wetland is moderate, largely due to the intact buffer and nearby priority habitats. The wetland itself is too small and not diverse enough in structure or plant community makeup to provide measureable habitat value beyond that of the surrounding area.

### 4.2.2 Streams

As noted, the stream on Lot 7 was not flagged as part of this investigation; however, the approximate location of the stream is shown in Figure 1. This stream would be considered Type F. The City of Mercer Island online GIS database also depicts a Type-Ns stream running from the east edge of parcel 3024059001, through the adjacent properties to the east, and entering a pipe beneath East Mercer Way just north of parcel 3024059151. We located the pipe leading under the road and observed the area uphill from the pipe to the extent possible. The area immediately adjacent to the pipe is a depression of gravel substrate covered by grasses (*Poa* sp.), creeping buttercup (*Ranunculus repens*), and Robert's geranium (*Geranium robertianum*) (see Wetland Determination Form for DP1 in Appendix C). No water

was present during the May 2020 site visit. We did not enter the private property from which the pipe drained more than a few meters. From the road we did not observe a clearly defined channel, but rather a dry topographic ravine with no water in the short distance before disappearing beneath ornamental vegetation associated with a yard on the property (Appendix A, Photo 4). Although the topography suggests the presence of a stream, we did not observe any channels, seeps, wetland, standing or running water, or evidence of seasonal moving water. Characteristics of the bottom of the ravine are further described by DP1 (see Wetland Determination form for DP1 in Appendix C), which does not have hydric soils, wetland hydrology, or strongly wetland-facultative vegetation. (See also Appendix C, Wetland Determination Form DP2, for data collected at the top of the ravine identified as a water course in the City of Mercer Island online GIS database).

#### 4.2.3 Non-Wetland Area

Non-wetland on the all parcels is mostly mid-age and mature mixed coniferous-deciduous forested dominated by Douglas fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and bigleaf maple (*Acer macrophyllum*), with a dense understory of typical Pacific Northwest shrubs and forbs (Table 1). Soils outside of the wetland are brown to very dark brown (10YR 3/2, 10YR 2/2) silty loam with dark yellowish brown (10YR 4/6) redoximorphic features starting at 10 inches depth. Upland forest on Lot 7 is broken only by the previously noted trail and stream.

Table 1. Vegetative species identified on the study site (Lot 7)

Common name	Scientific name
Red alder	Alnus rubra
Western red cedar	Thuja plicata
Douglas-fir	Pseudotsuga menziesii
Western hemlock	Tsuga heterophylla
Bigleaf maple	Acer macrophyllum
Salal	Gaulthoria shallon
Osoberry	Oemleria cerasiformis
Salmonberry	Rubus spectbilis
Red huckleberry	Vaccinium parvifolium
Low Oregon grape	Mahonia nervosa
Cascara	Rhamnus purshiana
Beaked hazelnut	Corylus cornuta
Red elderberry	Sambucus racemosa
Thimbleberry	Rubus parviflorus
Himalayan blackberry*	Rubus ameniacus
Sword fern	Polystichum munitum
Robert's geranium	Geranium robertianum
Field horsetail	Equisetum arvense
Stinging nettle	Urtica dioica
Lady fern	Athyrium filix-femina
Creeping buttercup	Ranunculus repens

<sup>\*</sup>Non-native invasive species

### 4.2.4 Bald Eagle Habitat

Mercer Island supports a number of bald eagle breeding pairs, as well as perching and foraging habitat. City intake comments dated April 28, 2020, include an estimated location of an eagle nest on the edge of Engstrom Open Space, along East Mercer Way. During the roughly 4-hour May 2020 site visit, no eagles were observed visually or aurally from Lot 7, the parcel nearest the documented nest location (parcel 3024059213). A subsequent walk through the purported nest vicinity also resulted in no observations.

The subject property and surrounding area was again visited on May 6 and May 15, 2021. The nest tree was located from the ground and appeared to have a collection of sticks about midway up the trunk. This could be a historic eagle nest, but it does not presently appear large or structurally secure enough to be an active nest. No eagles were observed in the tree vicinity. The most recent confirmation of this nest was in 2006 and it is a likely conclusion that the nest is no longer active.

Eagles were heard calling repeatedly near the easternmost parcel (3024059151) during the morning hours of both site visit dates. Calls were from the east, near Lake Washington, across East Mercer Way from the parcel. The lots between the road and the lake support a number of potential nest and perch trees. No eagles or nests were observed on these lots from public roads and private driveways in the area of the calls. The three subject parcels support suitable eagle perch trees, as well as some trees that could potentially provide suit able nest sites in the future. There is no documentation of eagles using the subject property, however.

# 5 REGULATORY IMPLICATIONS

### **5.1 Local Regulations**

The City of Mercer Island regulates wetlands through Mercer Island City Code (MICC) Chapter 19.07.190. The onsite wetland scores 15 points, including 6 habitat points, using the Western Washington Wetland Rating Form, making it a Category IV wetland. Category IV wetlands in the City of Mercer Island require standard regulatory buffers of 40 feet (MICC 19.07.190.C.1), within which most development activities are restricted. Critical areas require an additional building setback of 10 feet; this setback may be reduced to 5 feet for Category IV wetlands, provided criteria are met and protective measures taken (MICC19.07.190.C.7.a). It is not clear whether Wetland A fits these criteria, as MICC requires that any wetland with a building setback not contain habitat for WDFW Priority Species. While the wetland is within a PHS polygon, the polygon represents a "Biodiversity Area" and is not associated with a particular PHS species.

The stream on parcel -9213 would be considered Type F, with standard buffers of 120 feet (MICC 19.07.180.C.1).

The City of Mercer Island designated areas used by bald eagles for foraging, nesting, and roosting, or areas within 660 feet of a bald eagle nest, as Fish and Wildlife Habitat Conservation Areas.

Investigation, including three site visits during the 2020 and 2021 breeding seasons, revealed no evidence to support the notion that the bald eagle nest depicted in City records is active or even present. It is the conclusion of this report that the historic nest does not constitute a Fish and Wildlife Habitat Conservation Area per MICC 19.07.170.

### 5.2 State and Federal Regulations

Wetlands are also regulated by the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act. Any filling of Waters of the State, including wetlands (except isolated wetlands), would likely require notification and permits from the Corps. The onsite wetland would likely be considered non-isolated by the Corps. Federally permitted actions that could affect endangered species may also require consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service.

Please note that the findings of this report are subject to the verification and agreement of local, State and/or federal regulatory authorities. Determinations made by these entities may disagree with and will likely supersede the conclusions in this report.

# Appendix A Photos



Photo 1: Wetland A.



Photo 2: Wetland A input drain.



Photo 3. Potential nest and perch trees between E Mercer Way and Lake Washington.



Photo 4. Input area of pipe running beneath East Mercer Way.

# Appendix B Wetland Rating Form

# **RATING SUMMARY – Western Washington**

Name of wetland (or I	D#): Altman	parcel 30240592	13			_	Date of site visit:	5/15/	2020
Rated by S Tomassi	, B MacWhinney	Tr	rained by E	cology?@	Yes 🗆	No	Date of training	20	07
HGM Class used for	rating Slope			Wetlan	d has n	nultipl	e HGM classes?	Yes 🗵	No
		lete with out the aerial photo/map		equested	(figures	can l	be combined).		
OVERALL WETLA	ND CATEGOR	Υ	(based on	functions	□ ors	pecial	characteristics   )		
1. Category of w	Catego Catego Catego	on FUNCTION ry I - Total score ry II - Total score ry III - Total score ry IV - Total score	= 23 - 27 e = 20 - 22 re = 16 - 19			1	Score for each function based on three ratings		
FUNCTION	Improving Water Quality	Hydrologic	Habitat	) ·			is not important)		
		appropriate rating	(H. M. L)			- 1	20 18		
Site Potential	L	M	L				9 = H, H, H		
Landscape Potential	M	L	M	8			8 = H, H, M		
Value	M	L	н	Total	1	- 1	7 = H, H, L		
Score Based on Ratings	5	4	6	15		1.0	7 = H, M, M 6 = H, M, L		
					_		6 = M, M, M 5 = H, L, L 5 = M, M, L 4 = M, L, L		

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	Ü.
Bog	
Mature Forest	
Old Growth Forest	ĵ
Coastal Lagoon	
Interdunal	
None of the above	

3 = L, L, L

# 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	3 63
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D22, D52	1
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H21, H22, H23	
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	1
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H21, H22, H23	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R3.1	
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)	L22	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H2.1, H2.2, H2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L3.1, L3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L3.3	

### Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	1
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to another figure)	S 4.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H2.1, H2.2, H2.3	2

Screen capture of map of 303(d) listed waters in basin (from Ecology website)	53.1, 53.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	\$3.3	- 4

### **HGM Classification of Wetland in Western Washington**

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 t	he water levels in the entire u	nit usually controlled	y tides except of	during floods?
<b>(2)</b>	NO - go to 2	□ YES - th	e wetland class	is Tidal Fringe - go to 1.1
1.	1 Is the salinity of the water d	uring periods of annu	al low flow below	v 0.5 ppt (parts per thousand)?
2	If your wetland can be class	sified as a Freshwater e it is an <b>Estuarine</b> w	Tidal Fringe us	- Freshwater Tidal Fringe e the forms for Riverine wetlands, of scored. This method cannot be
	entire wetland unit is flat and p water and surface water runo			
П	NO - go to 3		□ YES	- The wetland class is Flats
		sified as a Flats wetla	nd, use the form	for Depressional wetlands.
	the entire wetland unit meet The vegetated part of the w plants on the surface at any At least 30% of the open wa	etland is on the shore time of the year) at le	s of a body of p east 20 ac (8 ha	ermanent open water (without any ) in size;
<b>3</b>	NO - go to 4	□ YES-T	e wetland class	is Lake Fringe (Lacustrine Fringe)
	the entire wetland unit meet			
	The wetland is on a slope (			
Ø	The water flows through the may flow subsurface, as sh			nal) and usually comes from seeps. It banks.
Ø	The water leaves the wetlar			
п	NO - go to 5			- The wetland class is Slope
	Surface water does not pond ions or behind hummocks (de			sionally in very small and shallow and less than 1 ft deep).
	the entire wetland unit meet The unit is in a valley, or str			f by overbank flooding
п	from that stream or river, The overbank flooding occu	ire at least once suon	2 1025	
-	The overbank flooding occu	is at least office every	z years.	
	NO - go to 6		□ YES	- The wetland class is Riverine
NOTE:	The Riverine unit can contain	depressions that are	filled with water	when the river is not flooding.

- 6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? This means that any outlet, if present, is higher than the interior of the wetland.
  - NO go to 7
    YES The wetland class is Depressional
- 7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.
  - NO go to 8
    YES The wetland class is Depressional
- 8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

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

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

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

SLOPE WETLANDS  Water Quality Functions - Indicators that the site functions to in	nprove wate	r quality	
S 1.0. Does the site have the potential to improve water quality?			
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 elevation for every 100 ft of horizontal distance)	ft vertical d	lrop in	
Slope is 1% or less Slope is > 1% - 2% Slope is > 2% - 5% Slope is greater than 5%	po	oints = 3 oints = 2 oints = 1 oints = 0	0
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions):	Yes = 3	No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollu Choose the points appropriate for the description that best fits the plants in the means you have trouble seeing the soil surface (>75% cover), and uncut mean mowed and plants are higher than 6 in.  Dense, uncut, herbaceous plants > 90% of the wetland area Dense, uncut, herbaceous plants > ½ of area  Dense, woody, plants > ½ of area	wetland. De ns not graze po po po	oints = 6 oints = 3 oints = 2	2
Dense, uncut, herbaceous plants > ½ of area  Does not meet any of the criteria above for plants	po	oints = 1 oints = 0	
Total for S 1 Add the points			2
Rating of Site Potential If score is: 12 = H 6 - 11 = M 0 0 - 5 = L  S 2.0. Does the landscape have the potential to support the water quality funct	September 1	rating on th	e first page
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	Yes = 1	No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources	Yes = 1	No = 0	1
Total for S 2 Add the points	in the boxe	s above	2
Rating of Landscape Potential If score is: 1 - 2 = M 0 = L  S 3.0. Is the water quality improvement provided by the site valuable to society	Record the	rating on th	e first page
S 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
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue?	Voc - 1	No - O	1

0

Yes = 2 No = 0

Record the rating on the first page

Add the points in the boxes above

S 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?

Rating of Value if score is: 2 - 4 = H 1 = M 1 = M 0 = L

Total for S 3

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flo	oding and stream erosi	ion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during points appropriate for the description that best fits conditions in the wetland. S should be thick enough (usually > 1/8 in), or dense enough, to remain erect do	tems of plants	1
Dense, uncut, <b>rigid</b> plants cover > 90% of the area of the wetland All other conditions	points = 1 points = 0	
Rating of Site Potential If score is:   1 = M 0 = L	Record the rating on th	e first pag
S 5.0. Does the landscape have the potential to support hydrologic functions of	of the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff?	Yes = 1 No = 0	0
Rating of Landscape Potential If score is: 1 = M 0 = L	Record the rating on th	e first pag
S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems.	:	
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	0
Surface flooding problems are in a sub-basin farther down-gradient	points = 1 points = 0	
No flooding problems anywhere downstream	points = 0	
S 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 S 6 Add the points	s in the boxes above	0
Rating of Value If score is: 2 - 4 = H 1 1 = M 0 0 = L	Record the rating on th	e first pag

NOTES and FIELD OBSERVATIONS:

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  Emergent  Scrub-shrub (areas where shrubs have > 30% cover)  Forested (areas where trees have > 30% cover)  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	1
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 Occasionally flooded or inundated Saturated only 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	1
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 ft <sup>2</sup> .  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         < 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  Low = 1 point  Moderate = 2 points	1
All three diagrams in this row are HIGH = 3 points	

	pecial habitat features:				
Check th	ne habitat features that are present in the wetland. The number of checks is the	ne number			
of points		on accompanies of			
STATE OF THE PARTY	Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft lon	na)			
	Standing snags (dbh > 4 in) within the wetland	·9/			
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)					
(3)	그 마음이다니 이번에 전 하면 하면 하면 하면 하면 하면 이 사람들이 되었다. 그 아이들은 아이들은 아이들은 아이들은 아이들은 아이들은 아이들은 아이들은				
	(> 30 degree slope) OR signs of recent beaver activity are present (cut shru that have not yet weathered where wood is exposed)	os or trees			
200	- 1844 F (1831 B 1844 B 1845 B 1846 B 1846 B 1856 B 1866 B				
u	At least 1/4 ac of thin-stemmed persistent plants or woody branches are pres				
	that are permanently or seasonally inundated (structures for egg-laying by a				
	Invasive plants cover less than 25% of the wetland area in every stratum of	plants (see			
	H 1.1 for list of strata)				
otal for		d the rating on the	6 e firet ner		
aung o	Site Potential II Score is.   15-10-11   7-14-11   0-0-1	a trie rating on the	e mst pag		
2.0. D	pes the landscape have the potential to support the habitat function of the site	?			
	cessible habitat (include only habitat that directly abuts wetland unit).				
alculate	(HONT) 전문이 경우 전문이 경우 전문이 전문이 전문이 전문이 전문이 되었다면 HONT의 전문이 전문이 되었다. 전문이 모든 사람이 되었다고 있는데 그런데 사람이 되었다면 보겠다고 있다.				
6	6 % undisturbed habitat + ( % moderate & low intensity land uses /	2)=			
	If total accessible habitat is:		0		
	> 1/3 (33.3%) of 1 km Polygon	points = 3	ಁ		
	5.3C. (1747) 184 (1847) 187 (1847) 184 (1847) 184 (1847) 184 (1847) 184 (1847) 184 (1847) 184 (1847) 184 (1847)	points = 2			
	20 - 33% of 1 km Polygon 10 - 19% of 1 km Polygon				
		points = 1 points = 0			
22 11	< 10 % of 1 km Polygon	points = 0			
	ndisturbed habitat in 1 km Polygon around the wetland.				
Calculate		P210W1232830			
23	% undisturbed habitat + (	2)=36%			
			2		
		CARONICAL DESCRIPTION AND			
	Undisturbed habitat > 50% of Polygon	points = 3	-		
	Undisturbed habitat 10 - 50% and in 1-3 patches	points = 2	_		
	- 5.70 5.50 (1.70 5.70 5.70 5.70 5.70 5.70 5.70 5.70 5		-		
	Undisturbed habitat 10 - 50% and in 1-3 patches Undisturbed habitat 10 - 50% and > 3 patches Undisturbed habitat < 10% of 1 km Polygon	points = 2	-		
12.3 La	Undisturbed habitat 10 - 50% and in 1-3 patches Undisturbed habitat 10 - 50% and > 3 patches	points = 2 points = 1			
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#### **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.qov/publications/00165/wdfw00165.pdf\_or access the list from here. http://wdfw.wa.qov/conservation/phs/list/

Addressed elsewhere.

Wetland Rating System for W WA: 2014 Update Rating Form Eff. Jan 1, 20159

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).
П	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).
D	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.
0	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).
D	Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
П	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).
0	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.
О	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.
D	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.
0	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: A	all vegetated wetlands are by definition a priority habitat but are not included in this list because they are

WSDOT Adapted Form - March 2, 2015

#### CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Check off any orderia that apply to the wetland. List the category when the appropriate orderia are met.  SC 1.0. Estuarine Wetland Boes the wetland With a salinity greater than 0.5 ppt    Yes - Go to SC 1.1   No = Not an estuarine wetland With a salinity greater than 0.5 ppt   Pyes - Go to SC 1.1   No = Not an estuarine wetland With a salinity greater than 0.5 ppt   Pyes - Cot of SC 1.1   No = Not an estuarine wetland With a salinity greater than 0.5 ppt   Pyes - Cot of SC 1.2   Pyes - Category I   No - Go to SC 1.2    SC 1.2. Is the wetland within a National Witchief (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 % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.   The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freehwater wetlands.   Yes = Category I   No = Category II   SC 2.0. Wetlands of High Conservation Value (WHCV)   Yes - Go to SC 2.2   No - Go to SC 2.3   Sc 2.1   Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value?   Yes = Category I   No = Not WHCV   SC 2.1   Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?   High Conservation Value?   Yes = Category I   No = Not WHCV   Yes = Category I   Yes - Go to SC 3.3   No = Not WHCV   Yes = Category I   Yes - Go to SC 3.3   No = Is not a bog   Yes - Go to SC 3.3   No = Is not	111 17	CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS	
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	Wetland	1 Type	Category
SC 1.0. Estuarine Wetlands  Does the wetland meet the following criteria for Estuarine wetlands?  The dominant water regime is tidal,  Vegetated, and  With a salinity greater than 0.5 ppt    Yes - Go to SC 1.1	Check of	fany criteria that apply to the wetland. List the category when the appropriate criteria are met.	
The dominant water regime is tidal,  Vegetated, and  With a salinity greater than 0.5 ppt  — Yes - Go to SC 1.1			
Vegetated, and   Vith a sainity 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		Does the wetland meet the following criteria for Estuarine wetlands?	
With a salinity greater than 0.5 ppt   Yes - Go to SC 1.1		The dominant water regime is tidal,	
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 I  No - Go to SC 1.2   No - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - Not WHCV   Not - Go to SC 1.3   No - SC 1.3		Vegetated, and	
Reserve Natural Area Preserve, State Park or Educational Park, National Estuary Reserve Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?    Yes = Category I		With a salinity greater than 0.5 ppt	
Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?    Yes = Category I		Yes - Go to SC 1.1 No = Not an estuarine wetland	
Reserve designated under WAC 332-30-1517    Yes = Category1	SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
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 Spartine, see page 25)  At least 3/6 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed 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?  "Yes = Go to SC 2.2 No - Go to SC 2.3  SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?  "Yes = Category I No - So to SC 2.3  SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?  "Hith://www.f. dnr.wa.gov/inhp/refdesk/datasearch/wnhpwetlands.pdf"  "So - Contact WNHP/WDNR and to SC 2.4 No = Not 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 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, 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 least han 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 - Go to SC 3.4  NOTE: If you are un			
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in Table 4 provide more than 30% of the cover under the canopy?			
Nethand Batton System for W.WA. 2014 (Rey Yes Tals & Category I body see			
	Netland D	ation System for W.W.4: 2014 Phys Yes Talan Category I bog 1510 . Wont Is not a bog.	. March 2, 2016

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.
0	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.
-	## COLECTION OF THE PROPERTY O
	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).
00.50	☐ Yes = Category I ☐ No = Not a forested wetland for this section
SC 5.U.	Wetlands in Coastal Lagoons
2	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
	사는 이 회사들은 가장 살아 있는 것이 가장 살아 있다면 그렇게 되었다면 그렇게
	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 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-
	grazed or un-mowed grassland.
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft <sup>2</sup> )
	☐ 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
	1600 F. F. SANDER BURE FOR SERVER SER
0	[10:10:19][20:10:10:10:10:10:10:10:10:10:10:10:10:10
	Yes - Go to SC 6.1 No = Not an interdunal wetland for rating
SC 6.1.	그
JO 0. 1.	(rates H,H,H or H,H,M for the three aspects of function)?
	Yes = Category I No - Go to SC 6.2
	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?
SCER	is the retiant i ac or larger, or is it in a mosale of Wellards fillal is 1 ac or larger!
SC 6.2.	- 100 B - 100
	☐ Yes = Category II ☐ No - Go to SC 6.3
	Yes = Category II No - Go to 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
	☐ Yes = Category II ☐ No - Go to SC 6.3

Map 1: 150-ft-radius circle; Cowardin classes, hydroperiods, and outlet.



Cowardin vegetation classes: Emergent (remainder of wetland area is forested)

Hydroperiods: Seasonally inundated (remainder is saturated only)

Map 2: 1-km radius from wetland; accessible and undisturbed habitat polygons

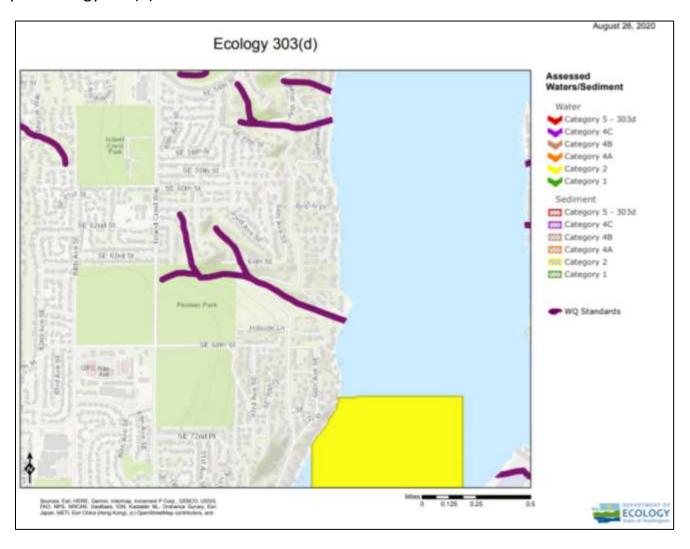


Accessible undisturbed habitat

Undisturbed habitat

Moderate and low-intensity land uses

Map 3: Ecology 303(d) Waters



### TMDLs in King County

### Water quality improvement projects

Select the waterbody or pollutant name to find more information about the specific project.

Waterbody Name(s)	Pollutant(s)	Status	Project Lead(s)
Bear-Evans Creek Basin	Fecal Coliform	EPA approved	<u>Ralph Svricek</u> 425-649-7165
Bear-Evans Creek Basin	Dissolved Oxygen Temperature	EPA approved	<u>Ralph Svricek</u> 425-649-7165
Cottage Lake	Total Phosphorus	EPA approved	Tricia Shoblom 425-649-7288
Duwamish and Lower Green River	Ammonia-N	EPA approved	Ralph Svricek 425-649-7165
Duwamish and Green River	Pollutant loading	Working with technical advisory group	Rachel McCrea 425-649-7033
Fauntieroy Creek	Fecal Coliform	EPA approved	Raiph Svricek 425-649-7165
Fenwick Lake	Total Phosphorus	EPA approved	<u>Tricia Shobiom</u> 425-649-7288
Green River and Newaukum Creek	Dissolved Oxygen Temperature	EPA approved	Raiph Svricek 425-649-7165
Issaquah Creek Basin	Fecal Coliform	EPA approved	Ralph Svricek 425-649-7165
<u>Lake Sawyer</u>	Total Phosphorus	EPA approved	Tricia Shoblom 425-649-7288
Little Bear Creek	Fecal Coliform	EPA approved	<u>Ralph Svrjcek</u> 425-649-7165
Newaukum Creek	Bacteria	Under development	<u>Ralph Svricek</u> 425-649-7165
North Creek	Fecal Coliform	EPA approved and Has an implementation plan	Ralph Syricek 425-649-7165
Pipers Creek	Fecal Coliform	EPA approved	<u>Ralph Svricek</u> 425-649-7165
Sammamish River	Dissolved Oxygen Temperature	Under development	Ralph Svrjeck 425-649-7165
Snoqualmie River	Ammonia-N BOD (5-day) Fecal Coliform	EPA approved	Ralph Svrjeck 425-649-7165
Snogualmie River	Temperature	EPA approved and Has an implementation plan	<u>Ralph Svrjeck</u> 425-649-7165
Soos Creek	Fecal Coliform	Under Development	Ralph Svricek 425-649-7165

# Appendix C Wetland Determination Forms

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

Project/Site: Altman Mercer Islan		City/County:	King	Sampling Date: 5/15/2020
Applicant/Owner: Plan to Permit LLC/Altman				ite: wa Sampling Point: DP1
nvestigator(s): S Tomassi, B MacWhinney				
SEES DELEGIS				nvex, none): concave Slope (%): 1
Subregion (LRR): A		집안한 함께도 때 소리하는데 하나요?		(2) 사회 (2) 이 경기를 위한 기업 (2) 전환 (2)
Soil Map Unit Name: Kitsap silt loam, 15 to 30% slo		100		NWI Classification:
Are climatic / hydrologic conditions on the site typic				V - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1
				the same of the sa
Are Vegetation . , Soil . , or Hydrology .	significantly dis			
Are Vegetation . , Soil . , or Hydrology .				eded, explain any answers in Remarks.)
	0.3000	3 samping	point ioc	ations, transects, important features, etc.
Hydrophytic Vegetation Present?   Yes O No		Is the Sampled		Area
Hydric Soil Present? O Yes Wetland Hydrology Present? O Yes	<ul><li>No</li><li>No</li></ul>	49 ( 20 )	in a Wetland	
Wetland Hydrology Present? O Yes  Remarks:	@ NO		60 manuar	2000 United Papara Papa
VEGETATION - Use scientific names o	•			I Paralacan Test weeksheets
	Absolute Do		934.25.71	Dominance Test worksheet:
Tree Stratum (Plot size: 30ft x 30ft )	% Cover Sp	.? % Cover	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3.				Species Across All Strata: 2 (B)
4.	) (40 )	Visit:		Percent of Dominant Species
OTP.	= To	otal Cover		That Are OBL, FACW, or FAC: 100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15ft x 15ft )			8	S. S. Self-State September September 20 and the sep
1.		1000		Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3	-0		i <del>.               </del> i	OBL species 0 x1 = 0
4				FACW species 0 x2 = 0
5.		otal Cover		FAC species 85 x 3 = 255 FACU species 15 x 4 = 60
Herb Stratum (Plot size: 5ft x 5ft )		otal Cover		FACU species 15 x 4 = 60 UPL species 0 x 5 = 0
Poa  Poa  Poa  Poa  Poa  Poa  Poa	65 Y	65.0	FAC	Column Totals: 100 (A) 315 (B)
Ranunculus repens	20 Y		FAC	Because we contribute Section
Geranium robertianum	15 N		FACU	Prevalence Index = B/A = 3.150
4.		188		Hydrophytic Vegetation Indicators:
5	19 nates	138.5		☐ 1 - Rapid Test for Hydrophytic Vegetation
6	1000	110.5		2 - Dominance Test is >50%
7				☐ 3 - Prevalence Index is ≤3.0*
8				<ul> <li>4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
9	-			H (2.5
10				5 - Wetland Non-Vascular Plants*
11	100 = To	tol Course	-	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: )	100 = 10	otal Cover	8	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				PARTICIPATION CONTRACTOR CONTRACT
1	520 - 220 S			Hydrophytic
	= To	otal Cover	P <u>-</u>	Hydrophytic Vegetation
	= To	otal Cover		The state of the s

SOIL Sampling Point: DP1

	Redox Features		
Depth Matrix (inches) Color (moist) %	Color (moist) % Type¹ Loc	a Text	ture Remarks
	Color (moisc) in Type Esc	_	ure itemaks
10YR 3/2 100		Loam	
1 100 MM - 2002 1 2000 MM - 2000		12101	1020
		_	
1975 19 1975	-28 19 232 234 247	20172	A0028
- 3776 26 7-76		1000	2022
Tune: C-Concentration D-Douleties P	M=Reduced Matrix, CS=Covered or Coated Sar	nd Grains	*Location: PL=Pore Lining, M=Matrix.
lydric Soil Indicators: (Applicable to		au Grants.	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	☐ Sandy Redox (S5)		☐ 2 cm Muck (A10)
Histic Epipedon (A2)	☐ Stripped Matrix (56)		Red Parent Material (TF2)
Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA	1)	☐ Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	-/	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		L out (Expensis remains)
☐ Thick Dark Surface (A12)	Redox Dark Surface (F6)		7
Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)		Indicators of hydrophytic vegetation and wetland hydrology must be present,
☐ Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or problematic.
Restrictive Layer (if present):			
Type:			is Soil Property O Yes ® No
Depth (inches):		Hyan	ic Soil Present? O Yes W No
Remarks:			
YDROLOGY			
IYDROLOGY Wetland Hydrology Indicators:	ired: check all that anoly)		Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requ			Secondary Indicators (2 or more required)    Water-Stained Leaves (89) (MLRA 1. 2.
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	☐ Water-Stained Leaves (89) (except		☐ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one regulators Water (A1)  High Water Table (A2)	☐ Water-Stained Leaves (89) (except MLRA 1, 2, 4A, and 4B)		☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one regulators Water (A1) High Water Table (A2) Saturation (A3)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11)		☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	☐ Water-Stained Leaves (89) (except MLRA 1, 2, 4A, and 4B)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1)	oots (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)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living R ☐ Presence of Reduced Iron (C4)	oots (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)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi) 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)	□ Water-Stained Leaves (B9) (except	toots (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 Hydrology Indicators: Primary Indicators (minimum of one requi) 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)	□ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living R     □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled 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)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Primary Indicators: Primary Indicators (minimum of one requi) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) I ron Deposits (B5) Surface Soil Cracks (B6) I nundation Visible on Aerial Imagery (	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living R ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils ☐ Stunted or Stressed Plants (D1) (LRR B7) ☐ Other (Explain in Remarks)	(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)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
YDROLOGY  Netland Hydrology Indicators: Primary Indicators (minimum of one regulations) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface (	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living R ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils ☐ Stunted or Stressed Plants (D1) (LRR B7) ☐ Other (Explain in Remarks)	(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)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface ( Field Observations:	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living R ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils ☐ Stunted or Stressed Plants (D1) (LRR B7) ☐ Other (Explain in Remarks)	(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)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement of surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface (Field Observations:	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living R ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils ☐ Stunted or Stressed Plants (D1) (LRR B7) ☐ Other (Explain in Remarks)	(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)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one requirement)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present? O Yes  Water Table Present? O Yes	□ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living R     □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils    □ Stunted or Stressed Plants (D1) (LRR B7)     □ Other (Explain in Remarks)  No Depth (inches):	(C6) (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)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Water Table Present? O Yes	□ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living R     □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils    □ Stunted or Stressed Plants (D1) (LRR B7)     □ Other (Explain in Remarks)     ■ No Depth (inches):     □ No Depth (inches):	(C6) (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)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required for the property of the	□ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living R     □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils    □ Stunted or Stressed Plants (D1) (LRR B7)     □ Other (Explain in Remarks)     ■ No Depth (inches):     □ No Depth (inches):	(C6) : A) Wetland 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
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface ( Field Observations:  Surface Water Present?  Yes  Water Table Present?  Yes  Saturation Present?  Yes  Gincludes capillary fringe)	□ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living R     □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (□ Stunted or Stressed Plants (D1) (LRR B7)     □ Other (Explain in Remarks)     □ No Depth (inches):     □ No Depth (inches):     □ No Depth (inches):	(C6) : A) Wetland 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
Primary Indicators (minimum of one requirement Indicators (Mater Marks (Mater Mater Ma	□ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living R     □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (□ Stunted or Stressed Plants (D1) (LRR B7)     □ Other (Explain in Remarks)     □ No Depth (inches):     □ No Depth (inches):     □ No Depth (inches):	(C6) : A) Wetland 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
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface ( Field Observations:  Surface Water Present?  Yes  Water Table Present?  Yes  Saturation Present?  Yes  Gincludes capillary fringe)	□ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living R     □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (□ Stunted or Stressed Plants (D1) (LRR B7)     □ Other (Explain in Remarks)     □ No Depth (inches):     □ No Depth (inches):     □ No Depth (inches):	(C6) : A) Wetland 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

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

Project/Site: Altman Mercer Islan		City/County:	King	Sampling Date: <u>5/15/2020</u>		
Applicant/Owner: Plan to Permit LLC/Altman		State	: wa Sampling Point: DP2			
nvestigator(s): S Tomassi, B MacWhinney		Section, Tow	nship, Range	Sec 30 T24N R05W		
Landform (hillslope, terrace, etc.): slope		Local relief (d	oncave, conv	ex, none): none Slope (%): 5		
Subregion (LRR): A	438	Long: -1	22.21622 Datum: NAD83HARN			
Soil Map Unit Name: Kitsap silt loam, 15 to 30%			NWI Classification:			
Are climatic / hydrologic conditions on the site t						
Are Vegetation . Soil . or Hydrology			ormal Circumstances" present?   Yes O No			
대한 이 경우를 잘 되었습니다. 그는 그는 사람이 있어요. 그런 아이라는 아름다고 그는	sturbed?					
Are Vegetation . , Soil . , or Hydrology	The second secon			ded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach s	ite map showin	g sampling	point loca	tions, transects, important features, etc.		
Hydrophytic Vegetation Present? O Yes	● No					
Hydric Soil Present?     Yes		13553	Sampled Ar			
Wetland Hydrology Present? O Yes	No	***************************************	i a ricciana	· Santan Santan		
Remarks:		(5)				
VEGETATION – Use scientific name	s of plants.					
	Absolute Do	m. Relative	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30ft x 30ft )		o.? % Cover	Status	Number of Dominant Species		
Tsuga heterophylla	20	Y 20.0	FACU	That Are OBL, FACW, or FAC:1 (A)		
Pseudotsuga menziesii	30	Y 30.0	FACU	Total Number of Dominant		
Acer macrophyllum	50	Y 50.0	FACU	Species Across All Strata:7(B)		
4				Percent of Dominant Species		
	100 = T	otal Cover		That Are OBL, FACW, or FAC: 14.3% (A/B)		
Sapling/Shrub Stratum (Plot size: 15ft x 15ft			7923535	December 1 and a second about		
Frangula purshiana		Y 50.0	FAC	Prevalence Index worksheet:		
Rhododendron macrophyllum	5	Y 50.0	FACU	Total % Cover of:   Multiply by:		
3	- 57			OBL species 0 x 1 = 0  FACW species 0 x 2 = 0		
5.			_	FAC species 6 x 3 = 18		
-	10 = T	otal Cover		FACU species 225 x 4 = 900		
Herb Stratum (Plot size: 5ft x 5ft )			- 1	UPL species 0 x 5 = 0		
Achlys triphylla	1	N 1.6	FAC	Column Totals: 231 (A) 918 (B)		
2. Polystichum munitum	60	Y 98.4	FACU			
3.				Prevalence Index = B/A = 3.974		
4				Hydrophytic Vegetation Indicators:		
5.				1 - Rapid Test for Hydrophytic Vegetation		
6.				2 - Dominance Test is >50%		
7	-5.5			☐ 3 - Prevalence Index is ≤3.0°		
8	- 1243 144			<ul> <li>4 - Morphological Adaptations' (Provide supportin data in Remarks or on a separate sheet)</li> </ul>		
9				☐ 5 - Wetland Non-Vascular Plants¹		
10	240			Problematic Hydrophytic Vegetation* (Explain)		
1.10	61 = T	otal Cover				
Woody Vine Stratum (Plot size: 5ft x 5ft	)	- III GOTOL	- 1	*Indicators of hydric soil and wetland hydrology must i present, unless disturbed or problematic.		
Hedera helix	60	Y 100.0	FACU	TOTAL PROPERTY OF THE PROPERTY		
2	- 1 j			Hydrophytic		
	- 19 H 19 19 19 19 19 19 19 19 19 19 19 19 19	otal Cover	31 V	Vegetation		
7	60 = T	otal Cover		( ) Yes in the		
% Bare Ground in Herb Stratum	60 = T	olai covei		Present? O Yes ® No		

SOIL Sampling Point: DP2

Depth (inches) 0-14	0.1-6-2-8		11000	ox Features			
-14	Color (moist)	%	Color (moist)	% Type	Loc <sup>2</sup>	Texture	Remarks
	10YR 2/2	75	10YR 5/3	20 C	м	Loam	
	- 1200 V - 1200			5 C	30 1355 F	Anna Anna	
			10YR 4/6	<u> </u>	M	· · · · · · · · ·	
				——			
	i ii ii	25.0	2002	ille terre	100	SSE tree	
200	25 - 25	A1 0100			-22 - C	- 1965 - 1965	
	· · · · · ·					( <del>)</del> ()	
				<u> </u>			
Type: C=Cor	rentration D=Den	eletion RM=F	Reduced Matrix, CS	=Covered or Coa	ated Sand (	Prains 4 ocati	on: PL=Pore Lining, M=Matrix.
			RRs, unless other				or Problematic Hydric Soils*
Histosol (A	1)	Γ	☐ Sandy Redox (SS	1		2 cm Muc	k (A10)
Histic Epipe	5 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		☐ Stripped Matrix (9				nt Material (TF2)
Black Histic	15,000,000		☐ Loamy Mucky Mir	William Down throught	t MLRA 1)		low Dark Surface (TF12)
Hydrogen S	The state of the s		☐ Loamy Gleyed Ma				plain in Remarks)
	elow Dark Surface		Depleted Matrix (				polit in remains,
	Surface (A12)	20 C	Redox Dark Surfa	1000		* * * * * * * * * * * * * * * * * * * *	
	ky Mineral (S1)		Depleted Dark Su				f hydrophytic vegetation and
	ed Matrix (S4)		Redox Depression				rology must be present, rbed or problematic.
	ayer (if present):			-,-,			
	ayer (ii precent).					I	
Type:	1-24						nt? • Yes O No
Depth (incl	hes):					Hydric Soil Prese	nt?
	-17						
Wetland Hyd	rology Indicators:		that and			Secretary	
Wetland Hydro Primary Indica	rology Indicators: ators (minimum of		i; check all that appi		no magnification of the control of t	A plant of the contract of the	ndicators (2 or more required)
Wetland Hydro Primary Indica Surface Wa	rology Indicators: ators (minimum of ater (A1)		☐ Water-Staine	d Leaves (B9) (e	except	☐ Water-Sta	ined Leaves (B9) (MLRA 1, 2,
Wetland Hydro Primary Indica Surface Wa High Water	ators (minimum of eter (A1) Table (A2)		☐ Water-Staine MLRA 1,	d Leaves (B9) (e 2, 4A, and 4B)	except	☐ Water-Sta 4A, a	ined Leaves (B9) (MLRA 1, 2, nd 4B)
Wetland Hydro Primary Indica Surface Wa High Water Saturation (	ators (minimum of ster (A1) Table (A2) (A3)		☐ Water-Staine MLRA 1, ☐ Salt Crust (B:	d Leaves (B9) (e 2, 4A, and 4B) 11)	except	☐ Water-Sta 4A, a ☐ Drainage	nined Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10)
Primary Indica Surface Wa High Water Saturation ( Water Mark	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) cs (B1)		☐ Water-Staine MLRA 1, ☐ Salt Crust (B: ☐ Aquatic Inver	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13)	except	☐ Water-Sta 4A, a ☐ Drainage ☐ Dry-Seaso	nined Leaves (B9) (MLRA 1, 2, nd 4B) Patterns (B10) on Water Table (C2)
Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment D	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2)		☐ Water-Staine  MLRA 1,  ☐ Salt Crust (B:  ☐ Aquatic Inver ☐ Hydrogen Su	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1)		☐ Water-Sta 4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation	ined Leaves (B9) (MLRA 1, 2, nd 4B) Patterns (B10) on Water Table (C2) I Visible on Aerial Imagery (C9)
Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) its (B3)		☐ Water-Staine  MLRA 1, ☐ Salt Crust (B: ☐ Aquatic Inver ☐ Hydrogen Su ☐ Oxidized Rhiz	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) zospheres along	Living Root	☐ Water-Sta 4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation s (C3) ☐ Geomorpi	nned Leaves (B9) (MLRA 1, 2, nd 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) nic Position (D2)
Wetland Hydro Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) its (B3) r Crust (B4)		☐ Water-Staine  MLRA 1, ☐ Salt Crust (B: ☐ Aquatic Inver ☐ Hydrogen Su ☐ Oxidized Rhiz ☐ Presence of F	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) cospheres along Reduced Iron (C4	Living Root 4)	☐ Water-Sta 4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation Is (C3) ☐ Geomorpi ☐ Shallow A	nned Leaves (B9) (MLRA 1, 2, nd 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) nic Position (D2) quitard (D3)
Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5)		☐ Water-Staine MLRA 1, ☐ Salt Crust (B: ☐ Aquatic Inver ☐ Hydrogen Su ☐ Oxidized Rhiz ☐ Presence of F	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tille	Living Root 4) ed Soils (C6	Water-Sta 4A, a Drainage Dry-Seaso Saturation (C3) Geomorpi Shallow A FAC-Neut	ined Leaves (B9) (MLRA I, 2, nd 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) nic Position (D2) quitard (D3) ral Test (D5)
Wetland Hydro Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soil	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) sits (B3) or Crust (B4) its (B5) Il Cracks (B6)	one required	☐ Water-Staine  MLRA 1, ☐ Salt Crust (B: ☐ Aquatic Inver ☐ Hydrogen Su ☐ Oxidized Rhiz ☐ Presence of F	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tille tressed Plants (D	Living Root 4) ed Soils (C6	☐ Water-Sta  4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation S (C3) ☐ Geomorpi ☐ Shallow A ☐ FAC-Neut ☐ Raised Ar	ined Leaves (B9) (MLRA I, 2, nd 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) nic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Wetland Hydri Primary Indica Surface Wat Sufface Wat Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soil	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) Il Cracks (B6) Visible on Aerial In	one required	☐ Water-Staine MLRA 1, ☐ Salt Crust (B: ☐ Aquatic Inver ☐ Hydrogen Su ☐ Oxidized Rhiz ☐ Presence of F	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tille tressed Plants (D	Living Root 4) ed Soils (C6	☐ Water-Sta  4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation S (C3) ☐ Geomorpi ☐ Shallow A ☐ FAC-Neut ☐ Raised Ar	ined Leaves (B9) (MLRA I, 2, nd 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) nic Position (D2) quitard (D3) ral Test (D5)
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Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment Deposi Algal Mat or Iron Deposi Surface Soil Inundation Sparsely Ve	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) aits (B3) or Crust (B4) its (B5) I Cracks (B6) Visible on Aerial Integetated Concave Stations:	one required magery (B7) Surface (B8)	Water-Staine     MLRA 1,     Salt Crust (B:     Aquatic Inver     Hydrogen Su     Oxidized Rhiz     Presence of B     Recent Iron B     Stunted or St     Other (Explain	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) iffide Odor (C1) cospheres along Reduced Iron (C4 Reduction in Tille tressed Plants (D in in Remarks)	Living Root 4) ed Soils (C6	☐ Water-Sta  4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation S (C3) ☐ Geomorpi ☐ Shallow A ☐ FAC-Neut ☐ Raised Ar	ined Leaves (B9) (MLRA I, 2, nd 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) nic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat on Iron Deposi Surface Soil Inundation Sparsely Ve Field Observation	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) iits (B3) or Crust (B4) its (B5) I Cracks (B6) Visible on Aerial Ingestated Concave Sations: or Present? © Ye	magery (B7) Surface (B8)	Water-Staine MLRA 1, Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or St Other (Explain	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) iffide Odor (C1) rospheres along Reduced Iron (C4 Reduction in Tille tressed Plants (D in in Remarks)	Living Root 4) ed Soils (C6	☐ Water-Sta  4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation S (C3) ☐ Geomorpi ☐ Shallow A ☐ FAC-Neut ☐ Raised Ar	ined Leaves (B9) (MLRA I, 2, nd 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) nic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment Deposi Algal Mat or Iron Deposi Surface Soil Inundation Sparsely Ve Field Observa Water Table F	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) I Cracks (B6) Visible on Aerial Inseptated Concave Sations: or Present?  Yee	magery (B7) Surface (B8)	Water-Staine MLRA 1, Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or St Other (Explain	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) iffide Odor (C1) rospheres along Reduced Iron (C4 Reduction in Tille tressed Plants (D in in Remarks)	Living Root 4) ed Soils (C6 01) (LRR A)	Water-Sta 4A, a Drainage Dry-Seasc Saturation Shallow A FAC-Neut Raised Ar	ined Leaves (B9) (MLRA I, 2, and 4B) Patterns (B10) In Water Table (C2) In Visible on Aerial Imagery (C9) Inic Position (D2) quitard (D3) Iral Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Iron Deposi Surface Soil Inundation Sparsely Ve Field Observi Surface Water Water Table F Saturation Pre	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) I Cracks (B6) Visible on Aerial Inseptated Concave Sations: or Present?  Yeesent?  Yeesent?  Yeesent?  Yeesent?  Yeesent?	magery (B7) Surface (B8) Surface (B No	Water-Staine MLRA 1, Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of Recent Iron Recent Iron Stunted or St Other (Explain	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) iffide Odor (C1) rospheres along Reduced Iron (C4 Reduction in Tille tressed Plants (D in in Remarks)  as):	Living Root 4) ed Soils (C6 01) (LRR A)	☐ Water-Sta  4A, a ☐ Drainage ☐ Dry-Seaso ☐ Saturation S (C3) ☐ Geomorpi ☐ Shallow A ☐ FAC-Neut ☐ Raised Ar	ined Leaves (B9) (MLRA I, 2, and 4B) Patterns (B10) In Water Table (C2) In Visible on Aerial Imagery (C9) Inic Position (D2) quitard (D3) Iral Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indica Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment Deposi Algal Mat or Iron Deposi Inundation Sparsely Verield Observit Surface Water Water Table F Saturation Pre Sincludes capi	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) aits (B3) or Crust (B4) aits (B5) I Cracks (B6) Visible on Aerial Integetated Concave Stations: ations: r Present? O Yellogry Fringe)	magery (B7) Surface (B8) Surface (B8) Surface (B8) Surface (B8)	Water-Staine MLRA 1, Salt Crust (8: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of R Recent Iron S Stunted or St Other (Explain	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) cospheres along Reduced Iron (C Reduction in Tille tressed Plants (D in in Remarks)	Living Root 4) ed Soils (C6 11) (LRR A)	Water-Sta 4A, a	ined Leaves (B9) (MLRA I, 2, and 4B) Patterns (B10) In Water Table (C2) In Visible on Aerial Imagery (C9) Inic Position (D2) quitard (D3) Iral Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indica Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment Deposi Algal Mat or Iron Deposi Inundation Sparsely Verield Observit Surface Water Water Table F Saturation Pre Sincludes capi	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) aits (B3) or Crust (B4) aits (B5) I Cracks (B6) Visible on Aerial Integetated Concave Stations: ations: r Present? O Yellogry Fringe)	magery (B7) Surface (B8) Surface (B8) Surface (B8) Surface (B8)	Water-Staine MLRA 1, Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of Recent Iron Recent Iron Stunted or St Other (Explain	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) cospheres along Reduced Iron (C Reduction in Tille tressed Plants (D in in Remarks)	Living Root 4) ed Soils (C6 11) (LRR A)	Water-Sta 4A, a	ined Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) In Water Table (C2) In Visible on Aerial Imagery (C9) Inic Position (D2) quitard (D3) Iral Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
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Primary Indica Primary Indica Surface Wa High Water Saturation ( Water Mark Sediment Deposi Algal Mat or Iron Deposi Inundation Sparsely Verield Observit Surface Water Water Table F Saturation Pre Sincludes capi	rology Indicators: ators (minimum of ster (A1) Table (A2) (A3) ss (B1) Deposits (B2) aits (B3) or Crust (B4) aits (B5) I Cracks (B6) Visible on Aerial Integetated Concave Stations: ations: r Present? O Yellogry Fringe)	magery (B7) Surface (B8) Surface (B8) Surface (B8) Surface (B8)	Water-Staine MLRA 1, Salt Crust (8: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of R Recent Iron S Stunted or St Other (Explain	d Leaves (B9) (e 2, 4A, and 4B) 11) rtebrates (B13) ifide Odor (C1) cospheres along Reduced Iron (C Reduction in Tille tressed Plants (D in in Remarks)	Living Root 4) ed Soils (C6 11) (LRR A)	Water-Sta 4A, a	ined Leaves (B9) (MLRA I, 2, and 4B) Patterns (B10) In Water Table (C2) In Visible on Aerial Imagery (C9) Inic Position (D2) quitard (D3) Iral Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)

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

	City/County: King	Sampling Date: 5/15/2020
	State	: wa Sampling Point: DP3
s	Section, Township, Range	Sec 30 T24N R05W
ı	ocal relief (concave, conv	ex, none): none Slope (%): 10
Lat: 45.54438	3 Long: <u>-1</u>	22.21622 Datum: NAD83HARN
		NWI Classification:
		ormal Circumstances" present?   Yes O No
		ded, explain any answers in Remarks.)
		The state of the s
	1	
100000000000000000000000000000000000000	ALCOHOLOGY CONTRACTOR OF THE PARTY OF THE PA	
O No	within a Wetland	? ● Yes ○ No
Contract Contract		
of plants.		
Absolute Dom.	Relative Indicator	Dominance Test worksheet:
% Cover Sp.?	% Cover Status	Number of Dominant Species
40 Y	36.4 FAC	That Are OBL, FACW, or FAC:3 (A)
20 N	18.2 FAC	Total Number of Dominant
50 Y	45.5 FACU	Species Across All Strata:5(B)
		Percent of Dominant Species
	l Cover	That Are OBL, FACW, or FAC: 60.0% (A/B)
10.0	100.0 EAC	Prevalence Index worksheet:
	100.0 PAC	Total % Cover of: Multiply by:
		OBL species 0 x1 = 0
		FACW species 0 x 2 = 0
		FAC species 85 x 3 = 255
5= Tota	l Cover	FACU species 140 x 4 = 560
		UPL species0 x 5 =0
Y	100.0 FAC	Column Totals: 225 (A) 815 (B)
		Prevalence Index = B/A = 3.622
765 65		Hydrophytic Vegetation Indicators:
(10)		☐ 1 - Rapid Test for Hydrophytic Vegetation
(14-) (a)		2 - Dominance Test is >50%
77:43		☐ 3 - Prevalence Index is ≤3.01
27840 IDS		☐ 4 - Morphological Adaptations¹ (Provide supporting
27253 ID:		data in Remarks or on a separate sheet)
	5574 GBB 50	☐ 5 - Wetland Non-Vascular Plants¹
21349 420		C 3 - Wedalin Mill-Agential Lights
7.5		Problematic Hydrophytic Vegetation¹ (Explain)
20 = Tota		
)	I Cover	Problematic Hydrophytic Vegetation¹ (Explain)
)		Problematic Hydrophytic Vegetation' (Explain)  'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
90 Y	l Cover	Problematic Hydrophytic Vegetation' (Explain)  'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic
90 Y	I Cover	Problematic Hydrophytic Vegetation' (Explain)  'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
90 Y	l Cover	Problematic Hydrophytic Vegetation' (Explain)  'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation
	Lat: 45.54438 slope pical for this time of ye significantly distu naturally problem te map showing s  O No O No O No O No O No O To O No O To O T	Section, Township, Range: Local relief (concave, conv Lat: 45.54438 Long: -1: slope pical for this time of year? Yes O No significantly disturbed? Are "No naturally problematic? (If need te map showing sampling point local No

Profile Description: (Describe to the	depth needed to d	ocument the	indicator	or confi	rm the a	hsence of	ndicators 1	1	
	deptit needed to d	Redox Featu		Or COIIII	mi uje a	userice of i	iruicators.,	P.	
Depth Matrix (inches) Color (moist) %	Color (mois		Type	Loca	T	exture		Por	narks
			_		TOTAL STREET			rten	Idina
0-14 10YR 4/1 80	10YR	5/6 20	c_	_M_	Sifty Ci	ay Loam			
9000 M PAN	500 m	1000	10 25				0.0		
				_					
		100	_	-	-				
184 8 10.5			to 35	_	_		·		
			-		10		-		
		19275					7.4		
Type: C=Concentration, D=Depletion,	RM=Reduced Matrix	v CS=Covere	d or Coate	of Sand (	Stains	10	ration: PI =	Pore Linis	ng, M=Matri
Hydric Soil Indicators: (Applicable to				o cano c	Jan				Hydric Soils
Histosol (A1)	☐ Sandy Redo						Muck (A10)		
☐ Histic Epipedon (A2)	☐ Stripped Ma						arent Mater		
Black Histic (A3)	☐ Loamy Muci		(excent)	MIRA 1)			Shallow Dar		
Hydrogen Sulfide (A4)	☐ Loamy Gley		* (*** / / / / / / / / / / / / / / / / /	12.01.27		April 1 mars and a second	(Explain in		
Depleted Below Dark Surface (A11)	☑ Depleted Ma								*
☐ Thick Dark Surface (A12)	Redox Dark	Surface (F6)				Endicate	rs of budge	nhutic upo	getation and
☐ Sandy Mucky Mineral (S1)	☐ Depleted Da	ark Surface (F	7)				hydrology n	A STATE OF THE STA	
Sandy Gleyed Matrix (S4)	☐ Redox Depr	essions (F8)					sturbed or		
Restrictive Layer (if present):	100000000000000000000000000000000000000	122-00011-0001			_	Seculiarentifica	Depos each size	44.000	200
Times					- 1				
Type:	10)				L.	drie Soil Dr	neant?	● Yes	s O No
Type:	<del></del>				Ну	dric Soil Pr	esent?	● Yes	s O No
Depth (inches):					Ну	dric <mark>S</mark> oil Pr	esent?	● Yes	s O No
Depth (inches):					Ну	dric <mark>S</mark> oil Pr	esent?	● Yes	s O No
Depth (inches):Remarks:	77.				Ну	dric <mark>S</mark> oil Pr	esent?	● Yes	s O No
Depth (inches):					Ну	Seconda	ry Indicator	s (2 or m	ore required
Depth (inches):  Remarks:  IYDROLOGY  Wetland Hydrology Indicators:		t apply) Stained Leaves	s (B9) (exc	tept	Ну	Seconda	ry Indicator	s (2 or m	Be JAPONINE
Depth (inches):  Remarks:  IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one remarks)	☐ Water-9			tept	Ну	Seconda Water	ry Indicator	s (2 or m	ore required
Depth (inches):  Remarks:  IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one recommend of the primary Indicators (minimum of the primary Indicators (MI)  High Water Table (A2)  Saturation (A3)	☐ Water-S ML ☐ Salt Cru	Stained Leaves RA 1, 2, 4A, a ust (B11)	nd 4B)	cept	Ну	Seconda  Water 4.	ry Indicator Stained Le A, and 48) Ige Patterns	s (2 or m aves (89) s (810)	ore required ) (MLRA 1, 2
Depth (inches):  Remarks:  IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one recommend of the primary Indicators (minimum of the	☐ Water-S ML ☐ Salt Cru ☐ Aquatic	Stained Leaves RA 1, 2, 4A, a ust (B11) : Invertebrates	nd 4B) (B13)	cept	Ну	Seconda  Water 4. Draine	ry Indicator Stained Le A, and 48) ige Patterns	s (2 or m aves (B9) s (B10) r Table (0	ore required ) (MLRA 1, 2
Depth (inches):  Remarks:  IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one recognized Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	☐ Water-S ML ☐ Salt Cru ☐ Aquatic ☐ Hydrog	Stained Leaves RA 1, 2, 4A, a ust (B11) : Invertebrates en Sulfide Ode	nd 4B) (B13) or (C1)			Seconda  Water 4. Draine Dry-Se	ry Indicator Stained Le A, and 48) ige Patterns eason Wate tion Visible	s (2 or m aves (B9) s (B10) r Table (G	ore required ) (MLRA 1, 2
Depth (inches):  Remarks:  IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one recognition of the property of the pro	☐ Water-S ML ☐ Salt Cn. ☐ Aquatic ☐ Hydrog ☐ Oxidize	Stained Leaves RA 1, 2, 4A, a ust (B11) : Invertebrates en Sulfide Odo d Rhizosphere	or (C1) s along Liv			Seconda  Water 4. Draine Dry-Se Satura	ry Indicator Stained Le A, and 48) ge Patterns asson Wate tion Visible orphic Posit	s (2 or maves (B9) s (B10) or Table (1 on Aerial	ore required ) (MLRA 1, 2
Depth (inches):  Remarks:  IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one recognized water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)	Water-S ML Salt Cn. Aquatic Hydrog Oxidize	Stained Leaves RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odo d Rhizosphere ce of Reduced	(B13) or (C1) s along Liv Iron (C4)	ving Root	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom	ry Indicator Stained Le A, and 4B) age Patterns eason Wate tion Visible orphic Posit w Aquitard	s (2 or m aves (B9) s (B10) r Table (0 on Aerial ion (D2) (D3)	ore required ) (MLRA 1, 2
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition of one recognition of the primary Indicators (minimum of one recognition of one recogniti	Water-S ML Salt Cn. Aquatic Hydrog Oxidize Present Recent	Stained Leaves RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odd d Rhizosphere ce of Reduced Iron Reductio	(B13) or (C1) s along Li Iron (C4) n in Tilled	ing Root Soils (C6	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo	ry Indicator Stained Le A, and 48) age Patterns eason Wate tion Visible orphic Posit w Aquitard eutral Test	s (2 or m aves (89) s (810) r Table (0 on Aerial ion (D2) (D3) (D5)	ore required ) (MLRA 1, 2 (C2) I Imagery (C
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition of one recognition of the primary Indicators (minimum of one recognition of one recogniti	Water-S ML Salt Cn. Aquatic Hydrog Oxidize Present Recent Stunted	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Ode d Rhizosphere ce of Reduced Iron Reductio d or Stressed F	ord 4B) (B13) or (C1) s along Liv Iron (C4) n in Tilled Plants (D1)	ing Root Soils (C6	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo FAC-N Raisec	ry Indicator Stained Le A, and 4B) age Patterns eason Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound	s (2 or maves (B9) s (B10) or Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (L	ore required ) (MLRA 1, 2 C2) I Imagery (C
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (Max Indicators (M	Water-S ML Salt Cn. Aquatic Hydrog Oxidize Presenc Recent Stunted	Stained Leaves RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odd d Rhizosphere ce of Reduced Iron Reductio	ord 4B) (B13) or (C1) s along Liv Iron (C4) n in Tilled Plants (D1)	ing Root Soils (C6	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo FAC-N Raisec	ry Indicator Stained Le A, and 48) age Patterns eason Wate tion Visible orphic Posit w Aquitard eutral Test	s (2 or maves (B9) s (B10) or Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (L	ore required ) (MLRA 1, 2 C2) I Imagery (C
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recommend of the primary Indicators (Mala)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery  Sparsely Vegetated Concave Surface	Water-S ML Salt Cn. Aquatic Hydrog Oxidize Presenc Recent Stunted	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Ode d Rhizosphere ce of Reduced Iron Reductio d or Stressed F	ord 4B) (B13) or (C1) s along Liv Iron (C4) n in Tilled Plants (D1)	ing Root Soils (C6	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo FAC-N Raisec	ry Indicator Stained Le A, and 4B) age Patterns eason Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound	s (2 or maves (B9) s (B10) or Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (L	ore required ) (MLRA 1, 2 C2) I Imagery (C
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (Malay Mater Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery  Sparsely Vegetated Concave Surface  Field Observations:	Water-S ML Salt Cru Aquatic Hydrog Oxidize Presenc Recent Stunted (B7) Other (188)	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Ode d Rhizosphere ce of Reduced Iron Reductio d or Stressed F	ord 4B) (B13) or (C1) s along Liv Iron (C4) n in Tilled Plants (D1)	ing Root Soils (C6	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo FAC-N Raisec	ry Indicator Stained Le A, and 4B) age Patterns eason Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound	s (2 or maves (B9) s (B10) or Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (L	ore required ) (MLRA 1, 2 C2) I Imagery (C
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (Male Marks (Male Male Male Male Male Male Male Male	Water-S ML Salt Cru Aquatic Hydrog Oxidize Presenc Recent Stunted (B7) Other (198)	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Ode d Rhizosphere ce of Reduced Iron Reductio d or Stressed F	ord 4B) (B13) or (C1) s along Liv Iron (C4) n in Tilled Plants (D1)	ing Root Soils (C6	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo FAC-N Raisec	ry Indicator Stained Le A, and 4B) age Patterns eason Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound	s (2 or maves (B9) s (B10) or Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (L	ore required ) (MLRA 1, 2 C2) I Imagery (C
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition (minim	Water-S ML Salt Cru Aquatic Hydrog Oxidize Presenc Recent Stunted (B7) Other (188)	Stained Leaves RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odd d Rhizosphere ce of Reduced Iron Reductio d or Stressed F Explain in Ren	ord 4B) (B13) or (C1) s along Liv Iron (C4) n in Tilled Plants (D1)	ing Root Soils (C6	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo FAC-N Raisec	ry Indicator Stained Le A, and 4B) age Patterns eason Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound	s (2 or maves (B9) s (B10) or Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (L	ore required ) (MLRA 1, 2 C2) I Imagery (C
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition (Material Properties)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery  Sparsely Vegetated Concave Surface  Field Observations:  Surface Water Present?  Yes  Water Table Present?  Yes  Saturation Present?  Yes	Water-S   ML	Stained Leaves RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Ode d Rhizosphere ce of Reduced Iron Reductio d or Stressed F Explain in Ren (inches):	ord 4B) (B13) or (C1) s along Liv Iron (C4) n in Tilled Plants (D1)	oling Root Soils (C6 (LRR A)	s (C3)	Seconda  Water 4. Draine Dry-Se Satura Geom Shallo FAC-N Raisec	ry Indicator Stained Le A, and 48) ge Patterns asson Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound Heave Hum	s (2 or maves (B9) s (B10) or Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (L	ore required ) (MLRA 1, 2 (C2) I Imagery (C LRR A)
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (Male Indicators (Ma	Water-S ML Salt Cru Aquatic Hydrog Oxidize Presenc Recent Stunted (B7) Other ( (B8)  No Depth ( No Depth (	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odd d Rhizosphere ce of Reduced Iron Reductio d or Stressed F Explain in Ren (inches): (inches):	ond 4B)  (B13)  (C1)  s along Liter (C4)  n in Tilled (D1)  narks)	Soils (C6) (LRR A)	s (C3)	Seconda  Water  4. Draine Dry-Se Satura Geom Shallo FAC-N Raisee	ry Indicator Stained Le A, and 48) ge Patterns asson Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound Heave Hum	s (2 or m aves (B9) s (B10) r Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (I mocks (D	ore required ) (MLRA 1, 2 (C2) I Imagery (C LRR A)
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition of the primary Indicators (minimum of one recognition (Material Properties)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery  Sparsely Vegetated Concave Surface  Field Observations:  Surface Water Present?  Yes  Water Table Present?  Yes  Saturation Present?  Yes	Water-S ML Salt Cru Aquatic Hydrog Oxidize Presenc Recent Stunted (B7) Other ( (B8)  No Depth ( No Depth (	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odd d Rhizosphere ce of Reduced Iron Reductio d or Stressed F Explain in Ren (inches): (inches):	ond 4B)  (B13)  or (C1)  s along Lit  Iron (C4)  n in Tilled  Plants (D1)  narks)	Soils (C6) (LRR A)	s (C3)	Seconda  Water  4. Draine Dry-Se Satura Geom Shallo FAC-N Raisee	ry Indicator Stained Le A, and 48) ge Patterns asson Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound Heave Hum	s (2 or m aves (B9) s (B10) r Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (I mocks (D	ore required ) (MLRA 1, 2 (C2) I Imagery (C LRR A)
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (Male Indicators (Ma	Water-S ML Salt Cru Aquatic Hydrog Oxidize Presenc Recent Stunted (B7) Other ( (B8)  No Depth ( No Depth (	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odd d Rhizosphere ce of Reduced Iron Reductio d or Stressed F Explain in Ren (inches): (inches):	ond 4B)  (B13)  or (C1)  s along Lit  Iron (C4)  n in Tilled  Plants (D1)  narks)	Soils (C6) (LRR A)	s (C3)	Seconda  Water  4. Draine Dry-Se Satura Geom Shallo FAC-N Raisee	ry Indicator Stained Le A, and 48) ge Patterns asson Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound Heave Hum	s (2 or m aves (B9) s (B10) r Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (I mocks (D	ore required ) (MLRA 1, 2 (C2) I Imagery (C LRR A)
Depth (inches):  Remarks:  Remarks:  Primary Indicators (minimum of one recognition of the primary Indicators (Male Indicators (Ma	Water-S ML Salt Cru Aquatic Hydrog Oxidize Presenc Recent Stunted (B7) Other ( (B8)  No Depth ( No Depth (	Stained Leave: RA 1, 2, 4A, a ust (B11) Invertebrates en Sulfide Odd d Rhizosphere ce of Reduced Iron Reductio d or Stressed F Explain in Ren (inches): (inches):	ond 4B)  (B13)  or (C1)  s along Lit  Iron (C4)  n in Tilled  Plants (D1)  narks)	Soils (C6) (LRR A)	s (C3)	Seconda  Water  4. Draine Dry-Se Satura Geom Shallo FAC-N Raisee	ry Indicator Stained Le A, and 48) ge Patterns asson Wate tion Visible orphic Posit w Aquitard eutral Test I Ant Mound Heave Hum	s (2 or m aves (B9) s (B10) r Table (0 on Aerial ion (D2) (D3) (D5) ds (D6) (I mocks (D	ore required ) (MLRA 1, 2 (C2) I Imagery (C LRR A)

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

Project/Site: Altman Mercer Islan		Ci	ty/County:	King	Sampling Date: 5/15/2020
Applicant/Owner: Plan to Permit LLC/Altman		153	350 335	Sta	ite: wa Sampling Point: DP4
Investigator(s): S Tomassi, B MacWhinney		Se	1000 1000	7	[1] - 10 (1) 1 (2) 2 (2) (2) (2) (2) (2) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
Landform (hillslope, terrace, etc.): slope		0.4			nvex, none): none Slope (%): 10
Subregion (LRR): A					
					NWI Classification:
Are climatic / hydrologic conditions on the site typic	Market Telephone	77.		U 2000-0	(If no, explain in Remarks.)
Are Vegetation □ , Soil □ , or Hydrology □					Normal Circumstances* present? • Yes O No
Are Vegetation . Soil . or Hydrology		E9.	tic?		eded, explain any answers in Remarks.)
				and the same	ations, transects, important features, etc.
Samuel Samuellage - 10 apr. 45	SSECTION		I	point ioc	ations, transects, important reatures, etc.
Hydrophytic Vegetation Present? O Yes Hydric Soil Present? O Yes	No     No		Is the	Sampled	Area
Hydric Soil Present? O Yes Wetland Hydrology Present? O Yes	No		10.50164.50	n a Wetlan	
Remarks:	9 110				
VEGETATION – Use scientific names o					Dominance Test worksheet:
Tree Stratum (Plot size: 30ft x 30ft) 1.	Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Thuja plicata	20	Y	28.6	FAC	Total Number of Dominant
Acer macrophyllum	50	Y	71.4	FACU	Species Across All Strata:5 (B)
4.					Percent of Dominant Species
	70	= Total	Cover		That Are OBL, FACW, or FAC: 40.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15ft x 15ft )					
Rubus spectabilis		<u>Y</u>		FAC	Prevalence Index worksheet:
Rubus parviflorus		<u>Y</u>	50.0	FACU	Total % Cover of: Multiply by:
3		-			OBL species 0 x 1 = 0  FACW species 0 x 2 = 0
4.		_			FAC species 25 x 3 = 75
	10	= Total	Cover		FACU species 155 x 4 = 620
Herb Stratum (Plot size: 5ft x 5ft )	0) <del>- 1751 U</del>				UPL species 0 x 5 = 0
1.				FAC	Column Totals: 180 (A) 695 (B)
2.		=	=		D
3		_			Prevalence Index = B/A =3.861
4		_			Hydrophytic Vegetation Indicators:
5		-			☐ 1 - Rapid Test for Hydrophytic Vegetation
6	0	-			2 - Dominance Test is >50%     3 - Prevalence Index is ≤3.0¹
8.	· ·	_			4 - Morphological Adaptations' (Provide supporting
9	S	_			data in Remarks or on a separate sheet)
10.	19 19	100		-	☐ 5 - Wetland Non-Vascular Plants¹
11.	ii i	Still 128	lo :		☐ Problematic Hydrophytic Vegetation¹ (Explain)
		= Total	Cover		*Indicators of hydric soil and wetland hydrology must be
Woody Vine Stratum (Plot size: 5ft x 5ft )	100				present, unless disturbed or problematic.
Hedera helix	100	Y	100.0	FACU	edited to compact
2					Hydrophytic
# B C	100	= Total	Cover		Vegetation Present? ○ Yes ® No
% Bare Ground in Herb Stratum					ACCIONADO DOMOCO
Remarks:					

SOIL Sampling Point: DP4

Depth (inches)         Matrix (color (moist))           0-10         10YR         3/2		Redox Features	
Description - The Research Control of the Control o	%	Color (moist) % Type¹ Loc²	Texture Remarks
DOUBLE TO SERVICE TO LOUIS	2 100		Silt Loam
10-14 10YR 3/2		10YR 4/6 3 C M	Silt Loam
10-14 10-1N GIZ	- 8/	101R 4/0 3 C III	Silt Loans
	-0		
			10 Varia
	-16		
		10 10 10 10 10 10 10 10 10 10 10 10 10 1	21
	95 Octo	- 100 0-8-1 0-8-4 0-1-2- - 1000 0-1-1000 0-1-2-1000 1-1-100	15
Time: C=Concentration D=De	-plation White	leduced Matrix, CS:-Covered or Coated Sand G	Grains. *Location: PL=Pore Lining, M=Matrix.
		RRs, un ass otherwise noted.)	Indicators for Problematic Hydric Soils*:
☐ Histosol (A1)		☐ Sandy Redox (S5)	2 cm Muck (A10)
☐ Histic Epipedon (A2)		☐ Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)		☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
		Depleted Matrix (F3)	Uther (explain in remarks)
☐ Depleted Below Dark Surface ☐ Thick Dark Surface (A12)		(N. 1974) (N	According to the State of the S
☐ Thick Dark Surface (A12)		Redox Dark Surface (F6)	*Indicators of hydrophytic wagetation and
Sandy Mucky Mineral (S1)		Depleted Dark Surface (F7)	wetland hydrology must be present,
☐ Sandy Gleyed Matrix (S4)		Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present)	4		
Type:			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Depth (inches):		<del></del>	Hydric Soil Present? O Yes ® No
Wetland Hydrology Indicator		A SEA AND ARREST (A AND ASSAULT)	
Wetland Hydrology Indicator Primary Indicators (minimum of			Secondary Indicators (2 or more required)
Wetland Hydrology Indicator  Primary Indicators (minimum o  ☐ Surface Water (A1)		☐ Water-Stained Leaves (B9) (except	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicator  Primary Indicators (minimum o  □ Surface Water (A1)  □ High Water Table (A2)			□ Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicator  Primary Indicators (minimum o  □ Surface Water (A1)  □ High Water Table (A2)  □ Saturation (A3)		☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11)	<ul> <li>□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>□ Drainage Patterns (B10)</li> </ul>
Wetland Hydrology Indicator  Primary Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)		☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13)	<ul> <li>□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>□ Drainage Patterns (B10)</li> <li>□ Dry-Season Water Table (C2)</li> </ul>
Wetland Hydrology Indicator  Primary Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)		☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (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 Hydrology Indicator  Primary Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)		□ Water-Stained Leaves (89) (except     MLRA 1, 2, 4A, and 4B)     □ Salt Crust (811)     □ Aquatic Invertebrates (813)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Roots	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9) s (C3) ☐ Geomorphic Position (D2)
Wetland Hydrology Indicator  Primary Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)		☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots ☐ Presence of Reduced Iron (C4)	☐ 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 Hydrology Indicator  Primary Indicators (minimum of 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)		□ Water-Stained Leaves (89) (except	☐ 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 Hydrology Indicator  Primary Indicators (minimum of 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)	of one required	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicator  Primary Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial	of one required  Imagery (87)	□ Water-Stained Leaves (89) (except	☐ 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 Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave	of one required  Imagery (87)	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations:	of one required  Imagery (B7) e Surface (B8)	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicator Primary Indicators (minimum of particular of	of one required  Imagery (B7) e Surface (B8)	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations:	Imagery (B7) e Surface (B8) Yes • No	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations:	Imagery (B7) e Surface (B8) Yes No	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present?	Imagery (B7) e Surface (B8) Yes No	□ Water-Stained Leaves (89) (except	☐ Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9) S (C3) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A) ☐ Frost-Heave Hummocks (D7)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present? Water Table Present?	Imagery (B7) e Surface (B8) Yes • No Yes • No	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     □ Drainage Patterns (B10)     □ Dry-Season Water Table (C2)     □ Saturation Visible on Aerial Imagery (C9)     s (C3)    □ Geomorphic Position (D2)     □ Shallow Aquitard (D3)     □ FAC-Neutral Test (D5)     □ Raised Ant Mounds (D6) (LRR A)     □ Frost-Heave Hummocks (D7)    Vestand Hydrology Present?    ○ Yes
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present? Water Table Present?	Imagery (B7) e Surface (B8) Yes • No Yes • No	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     □ Drainage Patterns (B10)     □ Dry-Season Water Table (C2)     □ Saturation Visible on Aerial Imagery (C9)     s (C3)    □ Geomorphic Position (D2)     □ Shallow Aquitard (D3)     □ FAC-Neutral Test (D5)     □ Raised Ant Mounds (D6) (LRR A)     □ Frost-Heave Hummocks (D7)    Vestand Hydrology Present?    ○ Yes
Primary Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial  Sparsely Vegetated Concave  Field Observations:  Surface Water Present?  Water Table Present?  Saturation Present?  (includes capillary fringe)  Describe Recorded Data (streat	Imagery (B7) e Surface (B8) Yes • No Yes • No	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     □ Drainage Patterns (B10)     □ Dry-Season Water Table (C2)     □ Saturation Visible on Aerial Imagery (C9)     s (C3)    □ Geomorphic Position (D2)     □ Shallow Aquitard (D3)     □ FAC-Neutral Test (D5)     □ Raised Ant Mounds (D6) (LRR A)     □ Frost-Heave Hummocks (D7)    Vestand Hydrology Present?    ○ Yes
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present? Water Table Present?	Imagery (B7) e Surface (B8) Yes • No Yes • No	□ Water-Stained Leaves (89) (except	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     □ Drainage Patterns (B10)     □ Dry-Season Water Table (C2)     □ Saturation Visible on Aerial Imagery (C9)     s (C3)    □ Geomorphic Position (D2)     □ Shallow Aquitard (D3)     □ FAC-Neutral Test (D5)     □ Raised Ant Mounds (D6) (LRR A)     □ Frost-Heave Hummocks (D7)    Vestand Hydrology Present?    ○ Yes