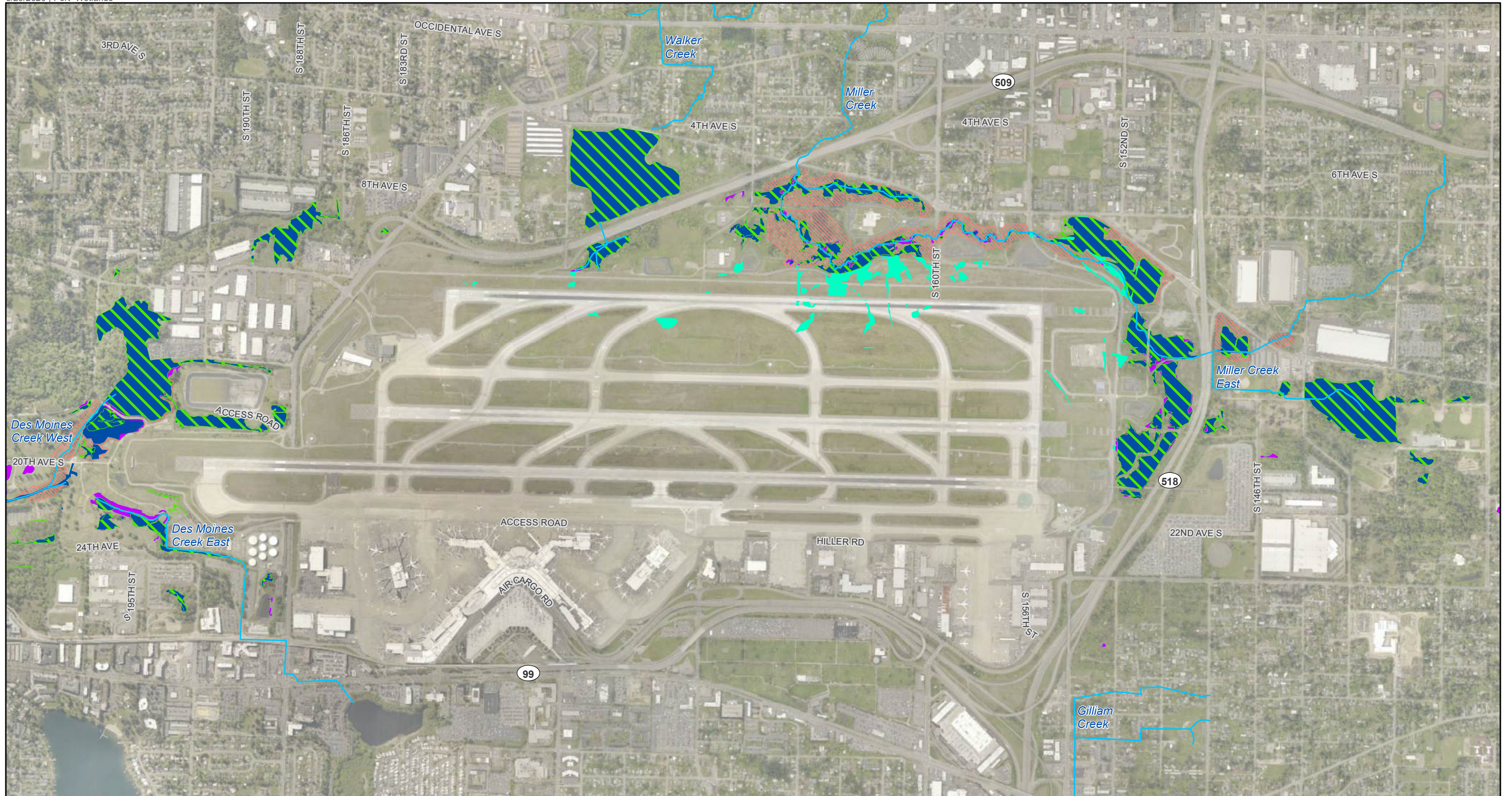


Appendix A

Background Information



Parametrix

Sources: King County Aerial (2017)

- Restrictive Covenant
- 2014 Wetlands
- 2006 Wetlands (Pre Third Runway)
- 2017 Wetlands
- 2006 Wetlands (Post Third Runway)
- 2017 Streams



0 0.125 0.25 0.5
Miles

Figure A-1
Port of Seattle Natural Resources
Geodatabase: Wetlands and Streams
 Wetlands and Streams Report
SeaTac Airport SAMP

King County, WA

2020 SAMP Hydrology Monitoring

Hydrology Point	Field Observations	Depth to Water (Inches)		Field Notes
		3/13/2020	3/25/2020	
SP-WLD-2	SW	-	-	No other primary or secondary hydrology indicators were observed. Excavated to 24 inches and left open for 20 minutes on 3/13/20. No groundwater or saturation to excavated depth of 22 inches on 3/25/2020.
	WT	-	-	
	SAT	-	-	
SP-WLD-1	SW	-	-	No other primary or secondary hydrology indicators were observed. Excavated to 21 inches and left open for 20 minutes on 3/13/20. No groundwater or saturation to excavated depth of 20 inches on 3/25/2020.
	WT	-	-	
	SAT	-	-	
SP-WLG12-2	SW	-	-	No other primary or secondary hydrology indicators were observed. Excavated to a depth of 24 inches and left open for 28 minutes on 3/13/20. No groundwater or saturation to excavated depth of 22 inches on 3/25/2020.
	WT	-	-	
	SAT	-	-	
SP-WLG12-3	SW	-	-	There is a restrictive layer (compaction) present at a depth of 12 inches. The water table is located above this. No other primary or secondary hydrology indicators were observed. Excavated to a depth of 24 inches and left open for 14 minutes on 3/13/20. No groundwater or saturation to excavated depth of 20 inches on 3/25/2020. It is assumed that this pit does not receive adequate hydrology to be considered wetland.
	WT	9	-	
	SAT	7	-	
SP-WLG12-8	SW	3	4	Standing water was observed and had an approximate width of 20 inches, which spanned close to one third of the width of the swale feature. Other hydrology indicators include algae, drainage patterns, and sparsely vegetated concave surface. Excavated to a depth of 16 inches and left open for 5 minutes on 3/13/20.
	WT	0 (Surface)	0 (Surface)	
	SAT	0 (Surface)	0 (Surface)	
SP-WLG12-9	SW	-	-	No other primary or secondary hydrology indicators were observed. Excavated to a depth of 22 inches and left open for 10 minutes on 3/13/20.
	WT	11	11	
	SAT	8	9	
Hydro 1	SW	-	-	No other primary or secondary hydrology indicators were observed. Excavated to a depth of 22 inches and left open for 10 minutes on 3/13/20. No groundwater or saturation to excavated depth of 20 inches on 3/25/2020.
	WT	-	-	
	SAT	-	-	
Hydro 2	SW	-	-	A drain cover was located while excavating this soil pit. Excavated to a depth of 20 inches and left open for 5 minutes on 3/13/20.
	WT	3	10	
	SAT	1	6	
Hydro 3	SW	-	N/A	This hydro point was located near Hydro 2 to document the affect the drain/drainage system has on the surrounding area. No other primary or secondary hydrology indicators were observed. Excavated to a depth of 22 inches and left open for 10 minutes on 3/13/20.
	WT	9	N/A	
	SAT	4	N/A	
Hydro 4	SW	<1	-	Located in a long and linear swale. Other hydrology indicators include sparsely vegetated concave surface and geomorphic position. Excavated to a depth of 24 inches and left open for 12 minutes on 3/13/2020.
	WT	4	12	
	SAT	0 (Surface)	9	
Hydro 5	SW	-	N/A	No other primary or secondary hydrology indicators were observed. Excavated to a depth of 21 inches and left open for 20 minutes on 3/13/20.
	WT	11	N/A	
	SAT	7	N/A	
Hydro 6	SW	-	N/A	Water table expression occurred at a depth of 5 inches, which was directly above a restrictive layer. There was no water table or saturation below this depth. This hydro point has no surface water but is surrounded by an area of shallow ponding. Excavated to a depth of 21 inches and left open for 18 minutes on 3/13/20.
	WT	5	N/A	
	SAT	3	N/A	
Hydro 7	SW	-	N/A	This hydro point is located near the gravel service road and receives concentrated surface water flow (which was observed and photographed) from the shallow ponded area upslope. Excavated to a depth of 16 inches and left open for 15 minutes on 3/13/20.
	WT	5	N/A	
	SAT	3	N/A	
Hydro 8	SW	-	N/A	This hydro point is located at the lower extent of this particular lobe of the larger wetland. The hydrology was marginal. Excavated to a depth of 21 inches and left open for 30 minutes on 3/13/20.
	WT	-	N/A	
	SAT	11	N/A	
Hydro 9	SW	N/A	N/A	This hydro point was recorded at a box drain to document and photograph the occurrence of these features.
	WT	N/A	N/A	
	SAT	N/A	N/A	
Hydro 10	SW	-	-	This swale and surrounding areas are extensively drained by relict golf course features. Over 4 drain covers were observed (see Hydro 9). No other primary or secondary hydrology indicators were observed. Excavated to a depth of 21 inches and left open for 20 minutes on 3/13/20. Excavated to 24 inches and left open for 30 minutes on 3/13/20. No groundwater or saturation to
	WT	-	-	

2020 SAMP Hydrology Monitoring

Hydrology Point	Field Observations	Depth to Water (Inches)		Field Notes
		3/13/2020	3/25/2020	
Hydro 11	SAT	-	-	excavated depth of 18 inches on 3/25/2020.
	SW	-	-	No other primary or secondary hydrology indicators were observed. Excavated to a depth of 21 inches and left open for 20 minutes on 3/13/20. No groundwater or saturation to excavated depth of 20 inches on 3/25/2020.
	WT	-	-	
Hydro 12	SAT	-	-	No other primary or secondary hydrology indicators were observed. Excavated to a depth of 21 inches and left open for 18 minutes on 3/13/20. No groundwater or saturation to excavated depth of 20 inches on 3/25/2020.
	SW	-	-	
	WT	-	-	
Hydro 13	SAT	-	-	Beauty bark/topsoil has been deposited here as a result of overland sheet flow. This is the lowest point in the surrounding area. A nearby manhole cover has sand bags installed around it, which is evidence that water ponding does occur here. Excavated to a depth of 22 inches and left open for 15 minutes on 3/13/20.
	SW	-	-	
	WT	-	-	
Hydro 14	SAT	-	-	No other primary or secondary hydrology indicators were observed. Excavated to depth of 20 inches and left open for 15 minutes on 3/25/2020.
	SW	N/A	-	
	WT	N/A	-	
Hydro 15	SAT	N/A	7	Weak saturation from 7 to 9 inches. Indicators of ponding from dried algae.
	SW	N/A	-	
	WT	N/A	-	
Hydro 16	SAT	N/A	7	Ponding was observed near this hydrology check pit on 3/25/2020.
	SW	N/A	-	
	WT	N/A	7	
Hydro 17	SAT	N/A	0 (Surface)	No other primary or secondary hydrology indicators were observed. Excavate on 3/25/2020.
	SW	N/A	-	
	WT	N/A	-	
SP-WLN3-9	SAT	N/A	-	There is a restrictive layer present at and below 10 inches. Other hydrology indicators include the FAC-Neutral test. Excavated to a depth of 15 inches and left open for 10 minutes on 3/13/20.
	SW	-	N/A	
	WT	10	N/A	
SP-WLN4-1	SAT	9	N/A	The entire wetland adjacent to the roadway is ponded. Other hydrology indicators include the FAC-Neutral test, water-stained leaves, and an algal mat.
	SW	3	N/A	
	WT	0 (Surface)	N/A	
SP-WL1-1	SAT	0 (Surface)	N/A	Other hydrology indicators include geomorphic position, FAC-Neutral test, water-stained leaf, sparsely vegetated concave surface, and reduced iron. Excavated to a depth of 16 inches and left open for 5 minutes on 3/13/20.
	SW	1	N/A	
	WT	0 (Surface)	N/A	
SP-WL39-2	SAT	0 (Surface)	N/A	Very strong hydrology with instant GW expression. Excavated to a depth of 19 inches and left open for 5 minutes on 3/13/20. Mapped on the collector as 39-4 and is recorded in the field as 39-3. There may be naming issues here. Worth double checking.
	SW	-	N/A	
	WT	6	N/A	
	SAT	2	N/A	






Figure 2a: North and North RSA
Study Area Zones



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

December 7, 2023

Wetlands

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Figure 2b: West Study Area Zone



December 8, 2023

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Figure 2c: South RSA Study Area Zone



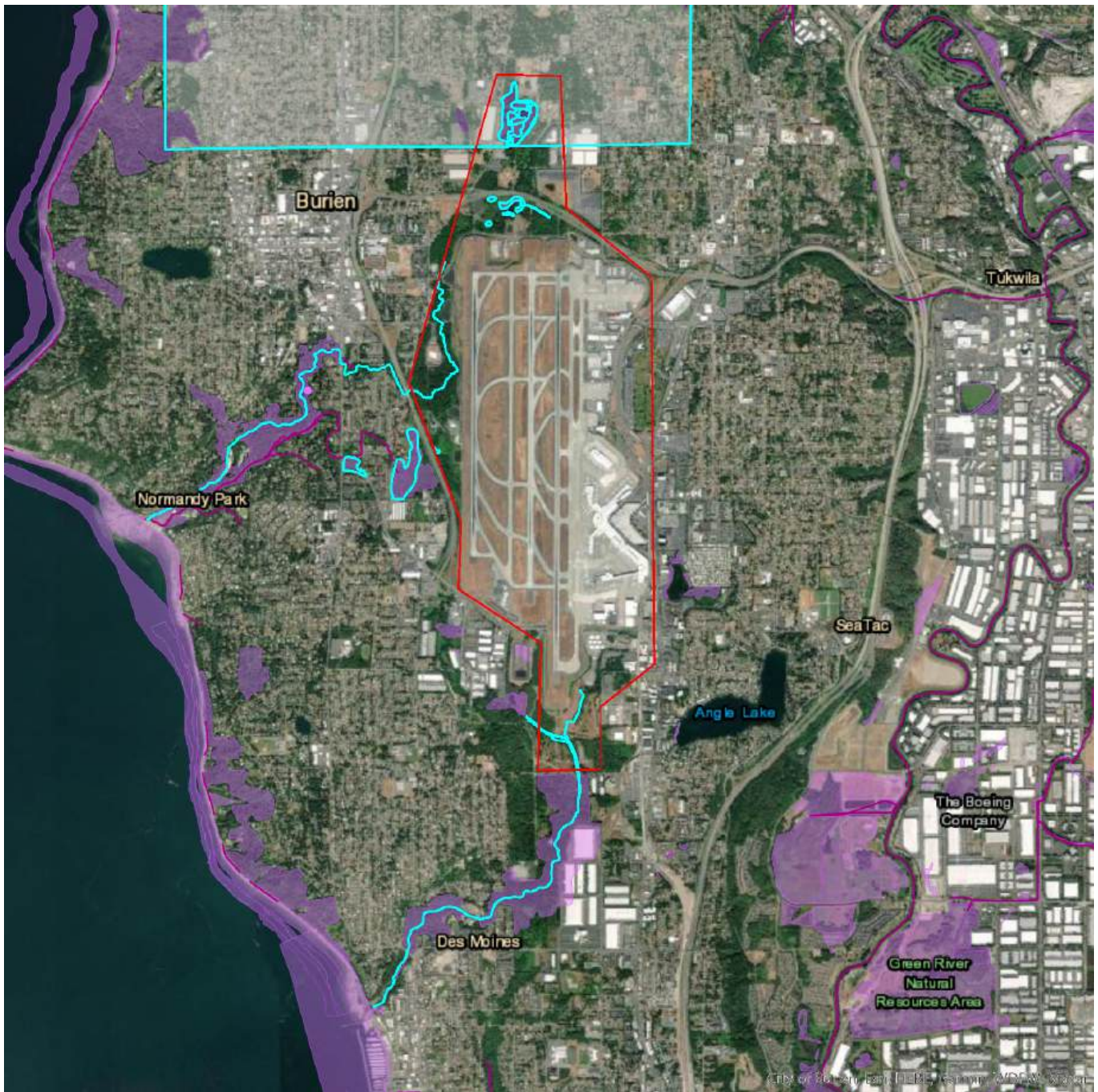
December 8, 2023

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Forested/Shrub Wetland
- Lake
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Other
- Freshwater Pond
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Figure 3: Priority Habitats and Species WDFW



Report Date: 12/07/2023

PHS Species/Habitats Overview:

Occurrence Name	Federal Status	State Status	Sensitive Location
Resident Coastal Cutthroat	N/A	N/A	No
Wetlands	N/A	N/A	No
Freshwater Emergent Wetland	N/A	N/A	No
Freshwater Forested/Shrub Wetland	N/A	N/A	No
Northwestern Pond Turtle	N/A	Endangered	Yes

PHS Species/Habitats Details:

Resident Coastal Cutthroat	
Scientific Name	<i>Oncorhynchus clarki</i>
Priority Area	Occurrence/Migration
Site Name	Miller Creek
Accuracy	NA
Notes	LLID: 1223555474429, Fish Name: Cutthroat Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	43326
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Resident Coastal Cutthroat	
Scientific Name	<i>Oncorhynchus clarki</i>
Priority Area	Occurrence/Migration
Accuracy	NA
Notes	LLID: 1223055474257, Fish Name: Cutthroat Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	41293
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Resident Coastal Cutthroat	
Scientific Name	<i>Oncorhynchus clarki</i>
Priority Area	Occurrence/Migration
Site Name	Des Moines Creek
Accuracy	NA
Notes	LLID: 1223268474050, Fish Name: Cutthroat Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	42098
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Wetlands	
Priority Area	Aquatic Habitat
Site Name	MILLER CREEK WETLANDS
Accuracy	1/4 mile (Quarter Section)
Notes	TWO SHRUB/FOREST AND TWO EMERGENT MARSH WETLANDS.
Source Record	902524
Source Dataset	PHSREGION
Source Name	MULLER, TED
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Emergent Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Emergent Wetland - NWI Code: PEM1C
Source Dataset	NWIIWetlands

Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Emergent Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Emergent Wetland - NWI Code: PEM1C
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Emergent Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Emergent Wetland - NWI Code: PEM1Cx
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Emergent Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Emergent Wetland - NWI Code: PEM1Ch
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Emergent Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Emergent Wetland - NWI Code: PEM1F
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

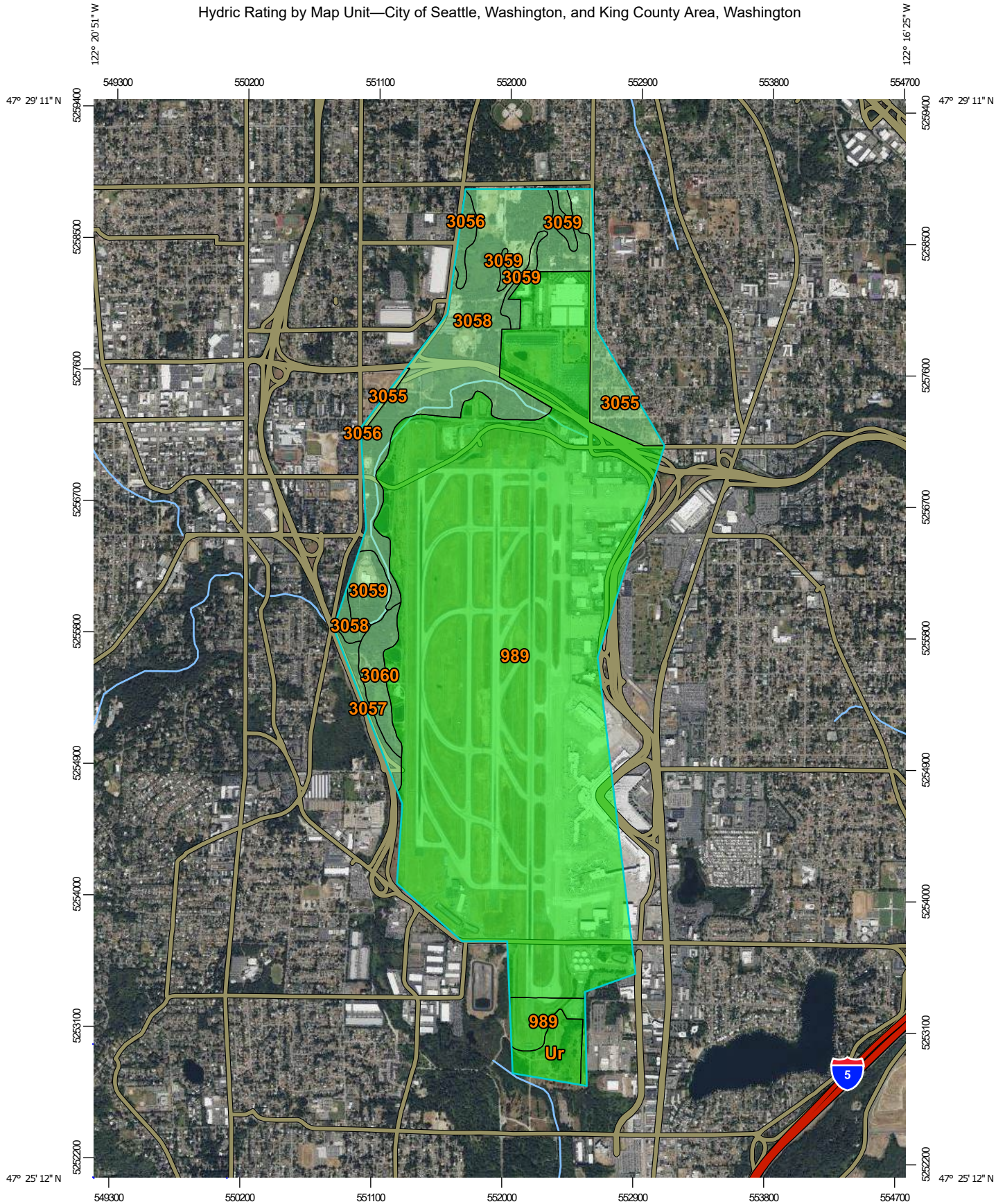
Freshwater Forested/Shrub Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Forested/Shrub Wetland - NWI Code: PFOC
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Forested/Shrub Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Forested/Shrub Wetland - NWI Code: PSSC
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Northwestern Pond Turtle	
Scientific Name	<i>Actinemys marmorata</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at phsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
State Status	Endangered
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	QTR-TWP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00025

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

Hydric Rating by Map Unit—City of Seattle, Washington, and King County Area, Washington



Map Scale: 1:35,900 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84




Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

12/8/2023
Page 1 of 5







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available


Soil Rating Lines

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available






Soil Rating Points

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: City of Seattle, Washington
 Survey Area Data: Version 7, Aug 29, 2023

Soil Survey Area: King County Area, Washington
 Survey Area Data: Version 19, Aug 29, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 31, 2022—Aug 8, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
989	Urban land, 5 to 20 percent slopes	0	1,578.1	74.6%
3055	Urban land-Alderwood complex, 0 to 5 percent slopes	10	65.7	3.1%
3056	Urban land-Alderwood complex, 5 to 12 percent slopes	10	13.1	0.6%
3057	Urban land-Alderwood complex, 12 to 35 percent slopes	10	17.6	0.8%
3058	Alderwood-Everett-Urban land complex, 0 to 12 percent slopes	5	281.8	13.3%
3059	Alderwood-Everett-Urban land complex, 12 to 35 percent slopes	5	51.5	2.4%
3060	Alderwood-Everett-Urban land complex, 35 to 60 percent slopes	5	37.0	1.7%
Subtotals for Soil Survey Area			2,044.9	96.6%
Totals for Area of Interest			2,116.1	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
989	Urban land, 5 to 20 percent slopes	0	33.6	1.6%
Ur	Urban land	0	37.6	1.8%
Subtotals for Soil Survey Area			71.2	3.4%
Totals for Area of Interest			2,116.1	100.0%

Rainfall Documentation

Date: 03/26/2020

Weather station: Seattle Tacoma International Airport

Period of Record.: 1971-2020

County: King

State: WA

Growing season: 2/8-12/11 (306 days)

		Long-term rainfall records							
	Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than	Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month*	Feb	2.55	2.56	3.86	4.05	Wet	3	3	9
2nd prior month*	Jan	5.43	1.95	6.40	9.23	Wet	3	2	6
3rd prior month*	Dec	4.03	5.67	6.71	7.96	Wet	3	1	3
								Sum : 18	

Note: If sum is

6 - 9 then prior period has been
drier than normal

10 - 14 then prior period has been
normal

15 - 18 then prior period has been
wetter than normal

Condition value:

Dry =1

Normal =2

Wet =3

Conclusions: The period prior to March 2020 has been wetter than normal.

Rainfall Documentation

Date: 11/08/2019

Weather station: Seattle Tacoma INTL AAPP Landowner: Port of Seattle

Period of Record: 1971-2019

County: King

State: Washington

Growing season: 2/8 to 12/12

Long-term rainfall records									
	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than	Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns	
1st prior month*	Nov	4.27	6.08	7.21	1.71	dry	1	3	
2nd prior month*	Oct	2.22	3.63	4.39	3.67	normal	2	4	
3rd prior month*	Sept	0.73	1.69	2.01	3.32	wet	3	3	
Sum :							10		

Note: If sum is

- 6 - 9 then prior period has been drier than normal
- 10 - 14 then prior period has been normal
- 15 - 18 then prior period has been wetter than normal

Condition value:

- Dry = 1
- Normal = 2
- Wet = 3

Conclusions: The period prior to December has been normal.

Rainfall Documentation

Date: 11/13/2019

Weather station: Seattle Tacoma INTL AAPP Landowner: Port of Seattle Period of Record: 1971-2019

County: King State: Washington Growing season: 2/8 to 12/12

		Long-term rainfall records			Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month*	Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than					
	Oct	2.22	3.63	4.39	3.67	Normal	2	3	6
2nd prior month*	Sept	0.73	1.69	2.01	3.32	Wet	3	2	6
3rd prior month*	Aug	0.32	1.03	1.20	1.20	Normal	2	1	2

Sum : 14

Note: If sum is

- 6 - 9 then prior period has been drier than normal
- 10 - 14 then prior period has been normal
- 15 - 18 then prior period has been wetter than normal

Condition value:

- Dry =1
- Normal =2
- Wet =3

Conclusions: The period prior to November has been normal.

Rainfall Documentation

Date: 10/31/2019

Weather station: Seattle Tacoma INTL AAPP Landowner: Port of Seattle Period of Record: 1971-2019

County: King State: Washington Growing season: 2/8 to 12/12

Long-term rainfall records									
Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than	Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns	
1st prior month*	Sept	0.73	1.69	2.01	3.32	Wet	3	9	
2nd prior month*	Aug	0.32	1.03	1.20	1.20	Normal	2	4	
3rd prior month*	July	0.32	0.68	0.82	1.15	Wet	3	3	
							Sum : 16		

Note: If sum is

- 6 - 9 then prior period has been
 drier than normal
- 10 - 14 then prior period has been
 normal
- 15 - 18 then prior period has been
 wetter than normal

Condition value:

- Dry =1
- Normal =2
- Wet =3

Conclusions: The period prior to October has been wetter than normal.

Rainfall Documentation

Date: 9/26/2019

Weather station: Seattle Tacoma INTL AAPP Landowner: Port of Seattle Period of Record: 1971-2019

County: King State: Washington Growing season: 2/8 to 12/12

		Long-term rainfall records			Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month*	Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than					
1st prior month*	Aug	0.32	1.03	1.20	1.20	Normal	2	3	6
2nd prior month*	July	0.32	0.68	0.82	1.15	Wet	3	2	6
3rd prior month*	June	0.90	1.45	1.75	0.90	Normal	2	1	2

Sum : 14

Note: If sum is

- 6 - 9 then prior period has been drier than normal
- 10 - 14 then prior period has been normal
- 15 - 18 then prior period has been wetter than normal

Condition value:

- Dry =1
- Normal =2
- Wet =3

Conclusions: The period prior to September has been normal.

Rainfall Normality Analysis Worksheet

Reference #:	ORM REFERENCE #	Location	City of SeaTac
Project Name:	SAMP	WETS Station:	Seattle Tacoma Airport, WA
Date of Analysis	1/3/2024	Date of Site Visit:	January 4 2024
		30-Year Period:	1993-2023

Prior Month	Name	WETS 30th percentile	WETS 70th percentile	Measured Rainfall	Condition	Condition Value	Month Weight	Score	Result
3rd	October	2.72	4.81	2.89	NORMAL	2	1	2	Dry = 6-9
2nd	November	4.62	7.62	5.78	NORMAL	2	2	4	Normal = 10-14 Wet = 15-18
most recent	December	4.36	6.98	8.48	WET	3	3	9	
Month Examined	January						Total	15	WET

Table 1: An analysis of rainfall utilizing the Direct Antecedent Rainfall Evaluation Method for the month of January 4 2024

Date	Daily Precipitation (inches)
12/25/2023	0.59
12/26/2023	0.09
12/27/2023	0.10
12/28/2023	0.06
12/29/2023	0.00
12/30/2023	0.10
12/31/2023	0.00
1/1/2024	0.00
1/2/2024	0.24
1/3/2024	0.10
10-Day Total	3.48

Table 2: Daily precipitation 10 days preceding site visit.

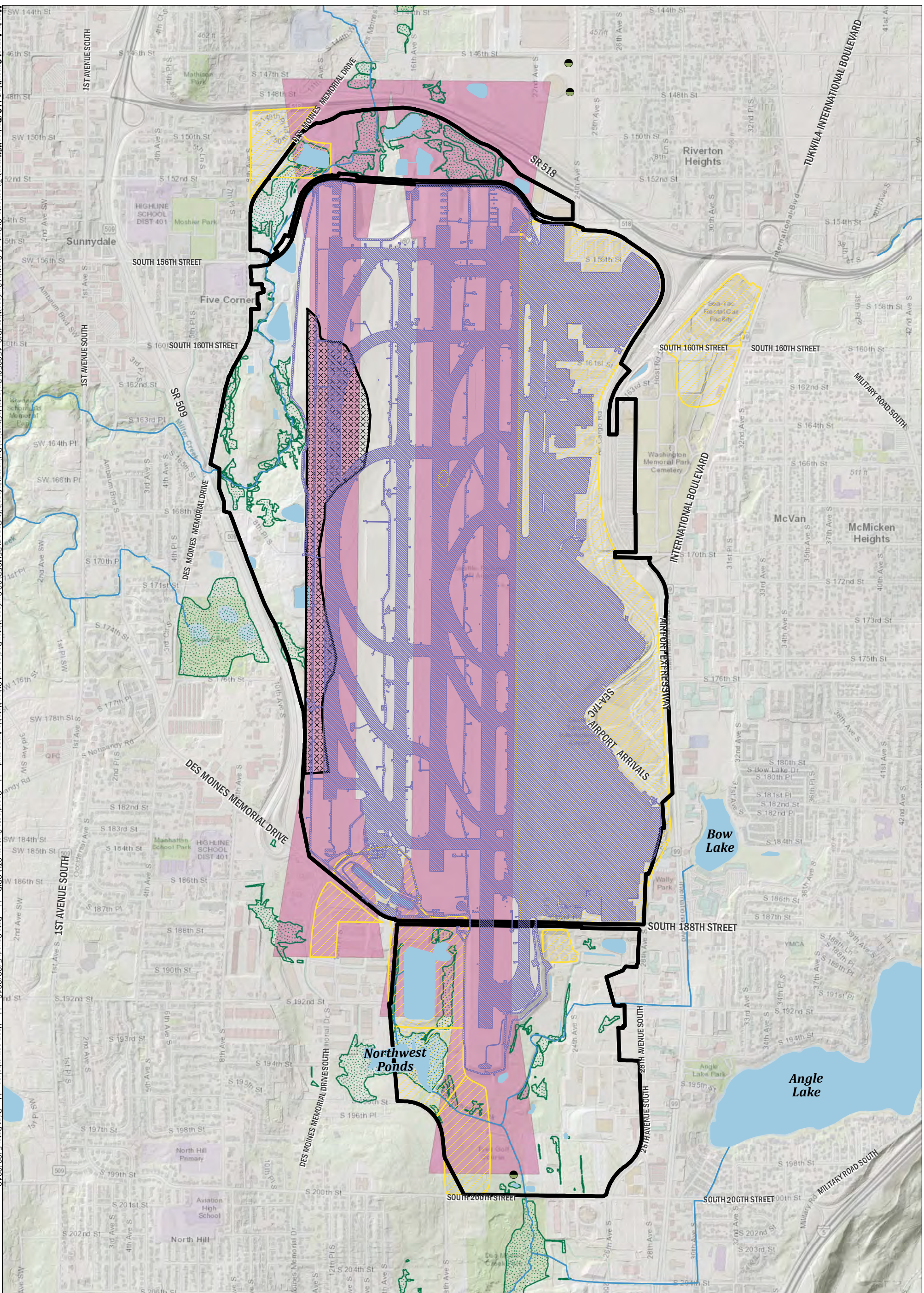
Field Observations










NOTES: Mostly cloudy

Analysis

Conditions are abnormally wet during the month of January 2024.

Map by Aspect Consulting, LLC (Parker Wittman) | Projects: Port of Seattle Surface Water Bodies and Other Notable Areas.mxd | Coordinate System: STIA GRID | Date Saved: 5/22/2018 | User: ecrumbaker | Print Date: 5/22/2018



-  Municipal Water Supply Wells
-  Project Extent
-  Third Runway Embankment
-  Wetland (ESA, 2017)
-  Impervious Area within AOA Boundary
-  Areas of Historical Industrial Activity
-  FAA Regulated Area
-  Surface Waterbody
-  Stream/river

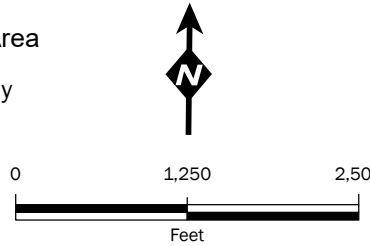
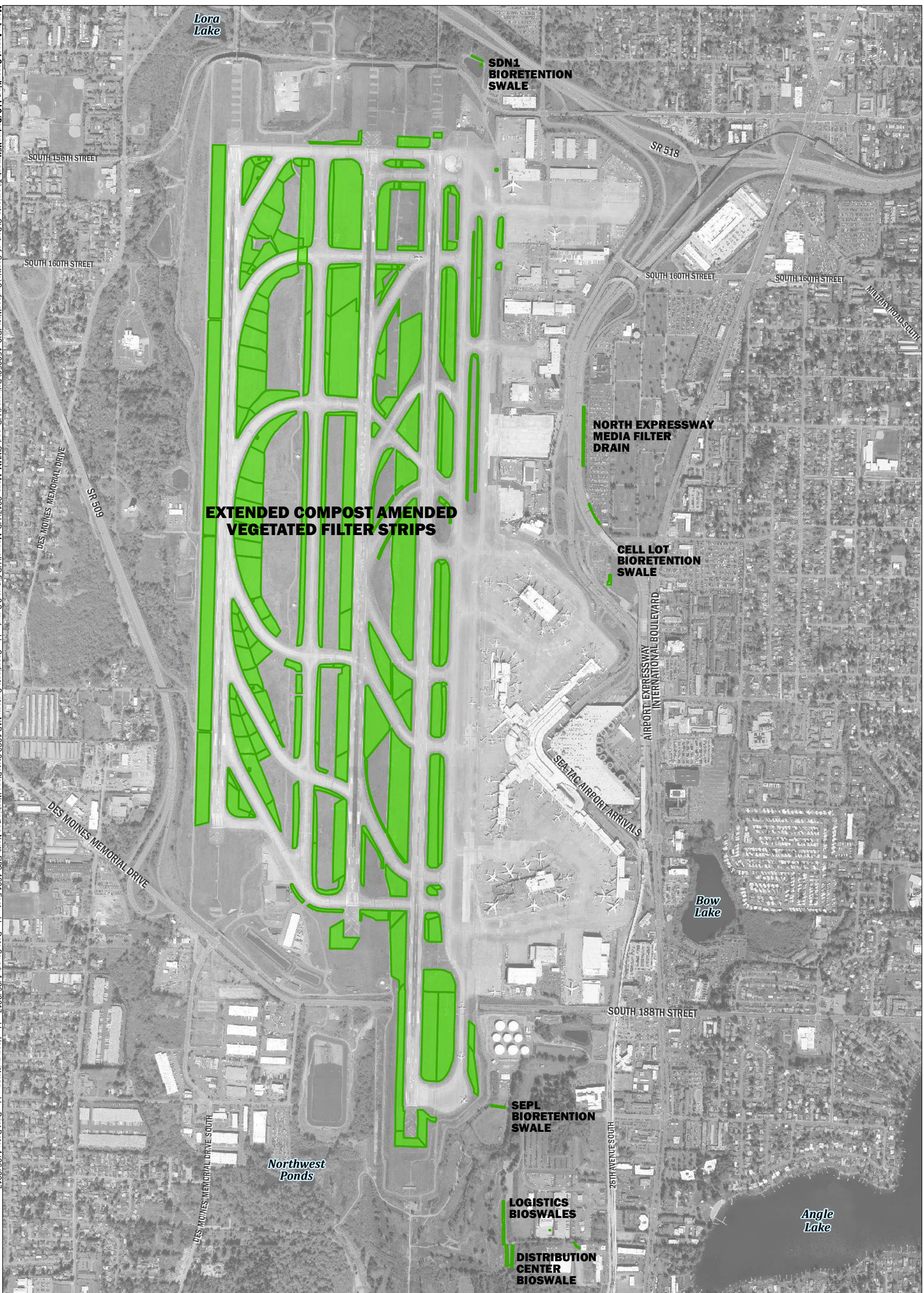


FIGURE 9
Surface Water Bodies and Other Notable Areas
 Seattle Tacoma International Airport Infiltration Infeasibility Assessment

Map by Aspect Consulting, LLC (Parker Wittman) | \projects_8\Port_of_Seattle_SurfaceWater\IDG_150050\Delivered_LID_and_SWMM_Maps_2017\LID_Manual\LID_Figure 2-2.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 4/26/2017 | User: pwittman | Print Date: 4/26/2017



 LID Bioretention and Infiltration

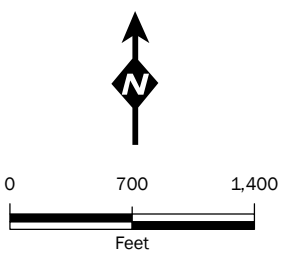
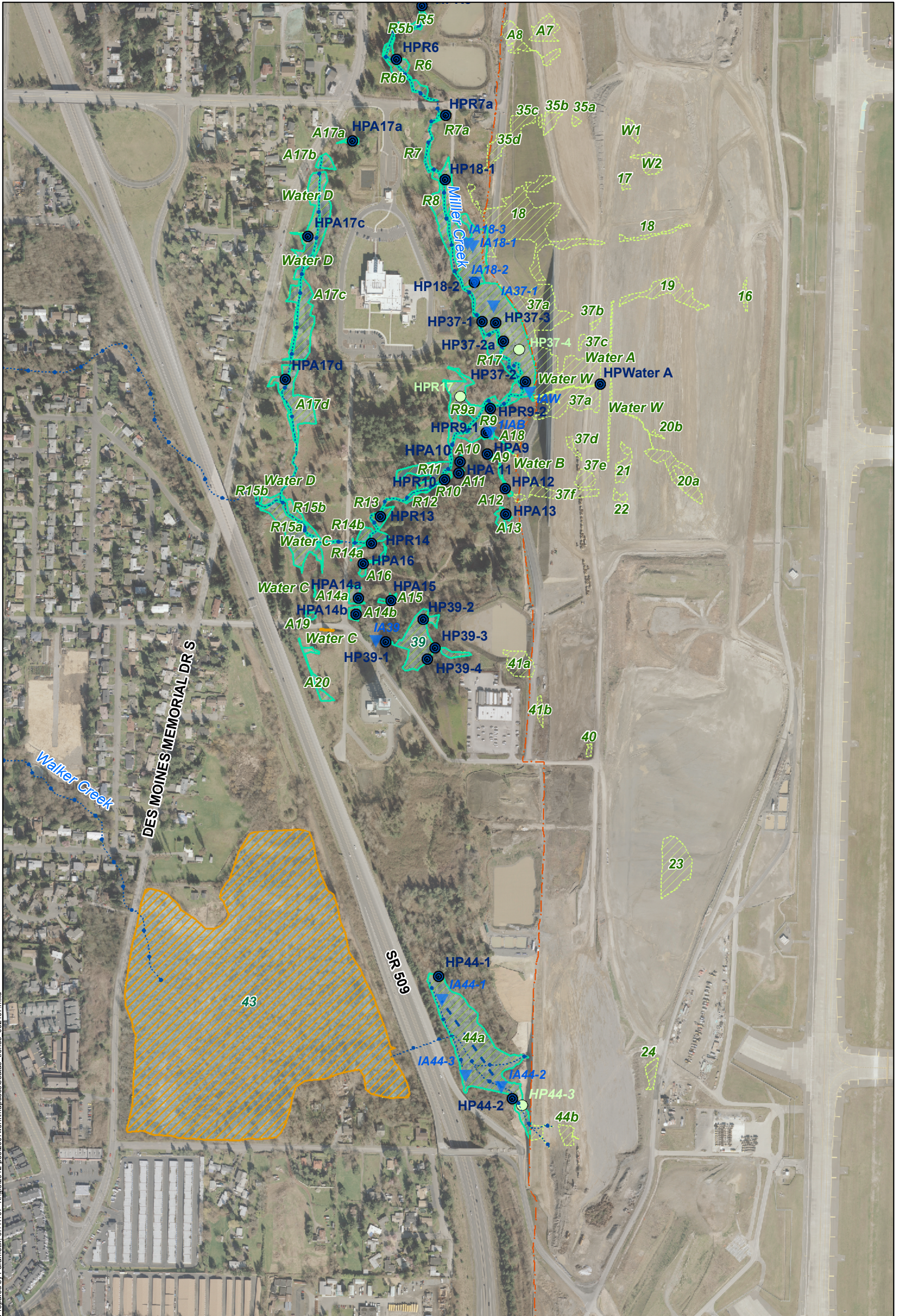
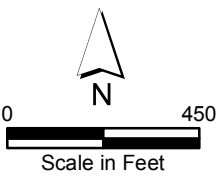


FIGURE 2-1
Existing STIA LID and Treatment Facilities
Providing LID Functions
 Seattle Tacoma International Airport Stormwater Low Impact Development Guideline



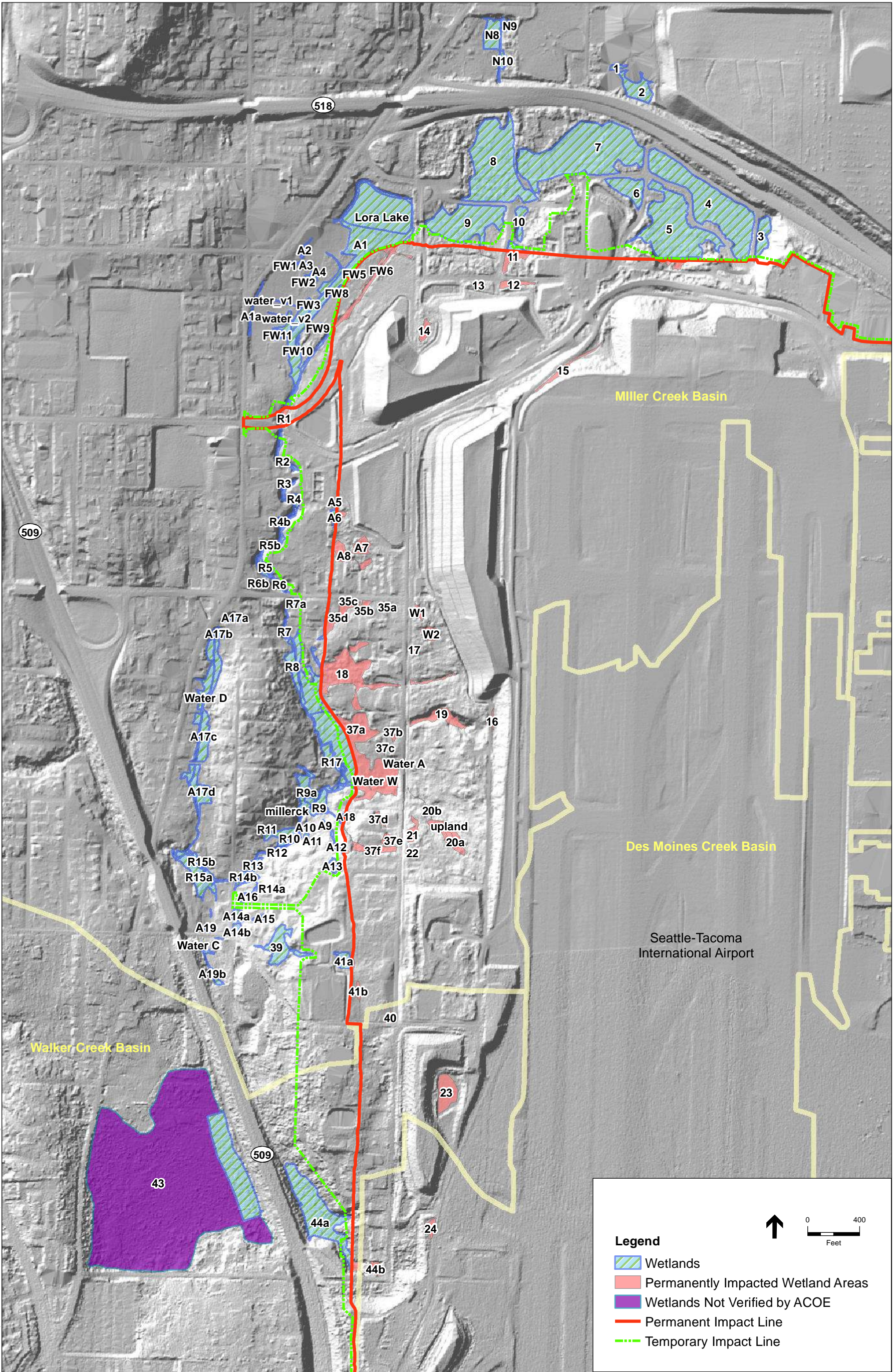
Prepared by Parametrix, 07/17/07 K:\gis\2912-pos\2007\work\mapdocs\siteatac_trends_062107.mxd

Parametrix



- Legend**
- IA-4-2 Staff Gages and/or Observation Areas + ID
 - HPR2 Trends Monitoring Well + ID
 - HPR2 Mitigation Monitoring Well + ID
 - Stream
 - FW8 Wetland + ID
 - W2 Impacted Wetland + ID
 - N3 Unverified or Estimated Wetland + ID
 - Planned Permanent Impact Boundary

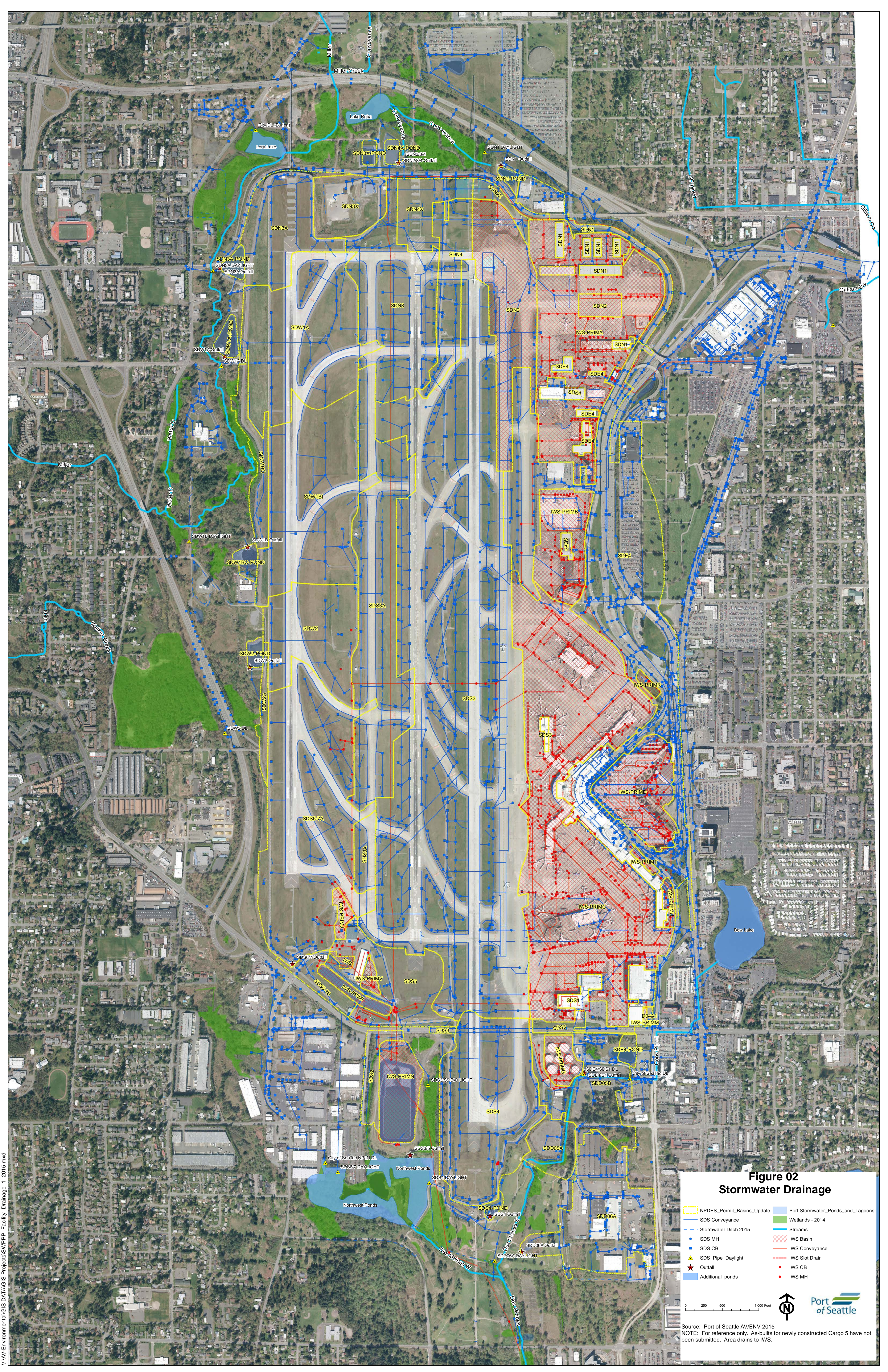
Figure 2-2b Wetlands and Monitoring Sites Near the Seattle - Tacoma International Airport Third Runway Embankment



SOURCE: King County, 2009; Port of Seattle, 2003, 2010; Puget Sound Lidar Consortium

Port of Seattle Wetland Redelineation . D120147

Figure 2
Wetlands and Basin Boundaries
Seattle-Tacoma International Airport, King County,
Washington
March 2013



**Figure 02
Stormwater Drainage**

NPDES_Permit_Basins_Update	Port Stormwater_Ponds_and_Lagoons
SDS Conveyance	Wetlands - 2014
Stormwater Ditch 2015	Streams
SDS MH	IWS Basin
SDS CB	IWS Conveyance
SDS_Pipe_Daylight	IWS Slot Drain
Outfall	IWS CB
Additional_ponds	IWS MH

Source: Port of Seattle AV/ENV 2015
 NOTE: For reference only. As-builts for newly constructed Cargo 5 have not been submitted. Area drains to IWS.



Washington State Fish Passage



- Not a barrier
- ▲ Partial Fish Passage Blockage
- ▲ Total Fish Passage Blockage
- ▲ Barrier, Unknown Percent Passable
- Diversion
- ▲ Natural Barrier - Verified
- On a Non-Fish Bearing Stream
- Unknown
- Corrected Barriers



Legend

Salmon and Steelhead (April 2023)

Fall Chum

- Documented Presence
- Documented Spawning
- Documented Rearing
- Presumed Presence (All Types)
- Gradient Accessible, Presence
- Potential: Blocked (All Types)
- Documented Historic Presence

Coho

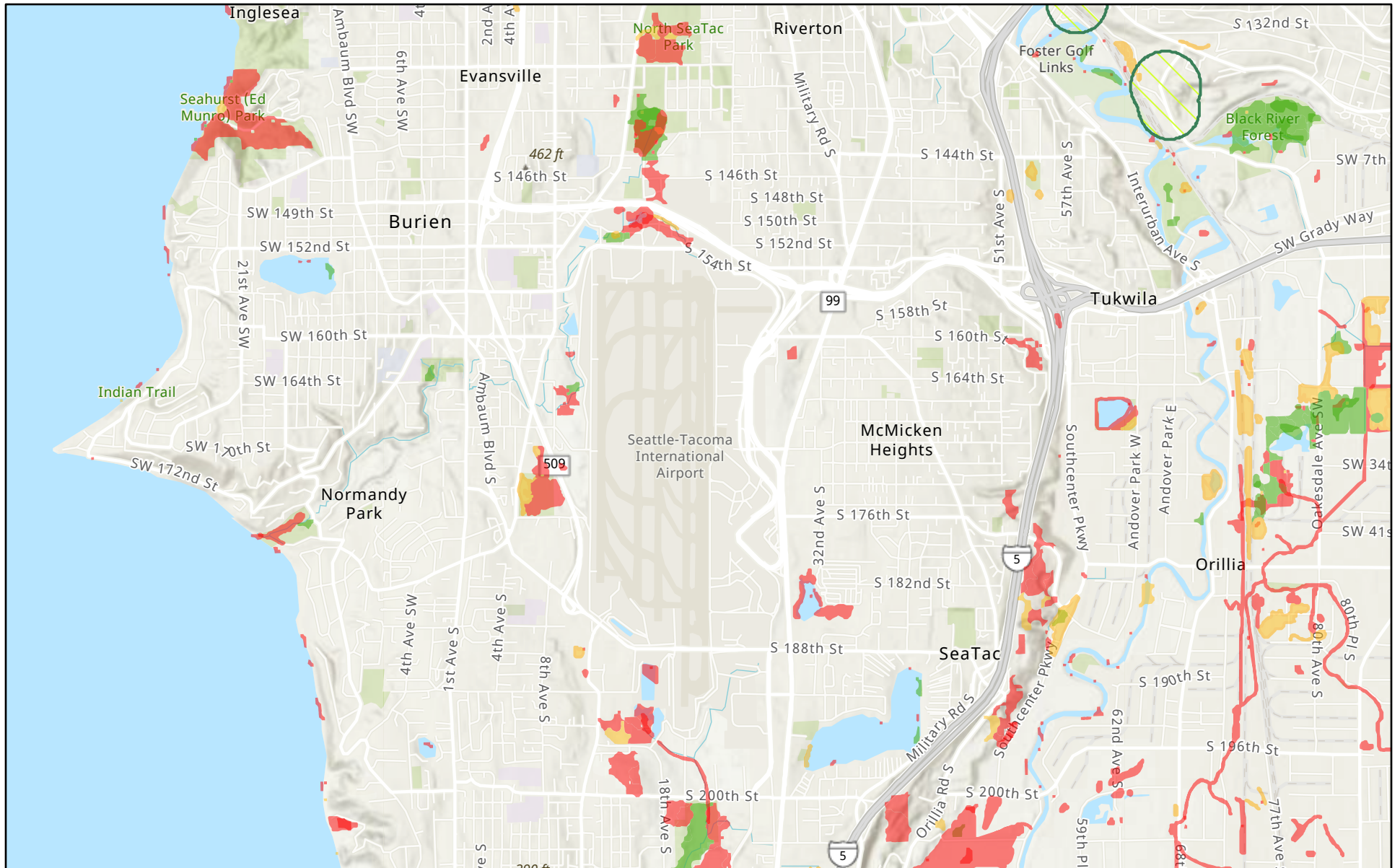
- Documented Presence
- Documented Spawning
- Documented Rearing
- Presumed Presence (All Types)
- Gradient Accessible, Presence
- Potential Presence (All Types)
- Document Historic Presence (All Types)
- + Transported Presence
- + Transported Spawning
- + Transported Rearing
- Artificial Presence
- Artificial Spawning
- Artificial Rearing

Boundaries

WRIAs & WAUs

- WRIA Boundaries
- WRIA Labels
- WAU Boundaries

WNHP




12/8/2023, 1:07:43 PM

Known Rare Plants and Rare & High-quality Ecosystems

 Rare Plant

Statewide NWI Level 1 EIAs

 B (Good)

 C (Fair)

 D (Poor)

Western WA NVC Level 1 EIAs

 B (Good)

 C (Fair)

 D (Poor)

KNOWN PLANT AND ECOSYSTEM LOCATIONS REFLECT KNOWN OCCURRENCE LOCATIONS BUT MAY NOT REFLECT ALL OCCURRENCES OF RARE PLANTS OR ECOSYSTEMS.

1:71,953

0 0.4 0.8 1.6 mi

0 0.5 1 2 km

Esri, NASA, NGA, USGS, FEMA, City of Burien, WA, City of SeaTac, King County, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph,

WNHP Plant & Ecosystem Map Viewer

Appendix B

Site Photographs



Photograph 1: Wetland N3.



Photograph 2: Wetland N4.



Photograph 3: Wetland 11.



Photograph 4: Stream A.



Photograph 5: Wetland 6 .



Photograph 6: Wetland 11.



Photograph 7: Tributary 2.



Photograph 8: Tributary 4 on WSDOT ROW parcel.



Photograph 9: Wetland 39.



Photograph 10: Wetland A14b.



Photograph 11: swale portion of wetland A14a.



Photograph 12: Wetland DMC2 with the East Fork of Des Moines Creek.



Photograph 13: Wetland 52A.



Photograph 14: Wetland 52B.



Photograph 15: Wetland G12 .

Appendix C

Data Forms

LOCATION	DATA PLOT	WET/UPL	VEG	SOILS	HYDRO
NORTH	WL N3-1	WET	Dominance Test	F3	primary; C3.
	WL N3-2	UPL	none	none	none
	WL N3-3	WET	Dominance Test	A11/F3	primary; C3/C4. secondary D2.
	WL N3-4	UPL	none	none	none
	WL N3-5	UPL	none	none	none
	WL N3-6	WET	Dominance Test	A3	primary; B8. Secondary D2
	WL N3-7	WET	Dominance Test	F3	D2/D5 secondary
	WL N3-8	UPL	none	none	none
	WL N3-9	UPL	none	none	none
	WL N3-10	WET	Dominance Test	F3	no primary; D2/D5 secondary
	WL N4-1	WET	Dominance Test	F6	primary; A1/A2/A3
	WL N4-2	UPL	Dominance Test	none	none
	WL 1-1	WET	Dominance Test	A11	no primary; D2/D5 secondary
	WL 1-2	UPL	Dominance Test	none	none
	WL 2-1	WET	Dominance Test	F3	no primary; B10/D5 secondary
	WL 2-2	UPL	Dominance Test	none	none
	WL 2-3	UPL	none	none	none
	WL 2-4	UPL	Dominance Test	none	none
	WL 2-5	WET	Dominance Test	F6	no primary; D2/D5 secondary
	WL A-1	WET	Dominance Test	F6	primary; A2/A3
WL A-2	UPL	none	none	none	
NORTH RSA	WL 5-1	WET	Dominance Test	F3	primary; A2/A3
	WL 5-2	UPL	Dominance Test	none	none
	WL 5-3	WET	Dominance Test	F3	primary; A2/A3/C3
	WL 5-4	UPL	Dominance Test	none	none
	WL 6-1	UPL	Dominance Test	none	none
	WL 6-2	WET	Dominance Test	A1	primary; A2/A3
	WL 6-3	WET	Dominance Test	F3	primary; A3
	WL 6-4	UPL	Dominance Test	A11	none
	WL 7-1	UPL	Dominance Test	none; shallow pit (4 inches up road fill)	none
	WL 7-2	WET	Dominance Test	All/S5	primary; A3
	WL 10-1	WET	Dominance Test	A12	primary; A2/A3
	WL 10-2	UPL	Dominance Test	none	none
	WL 10B-1	WET	Dominance Test	A11/F3	primary; A2/A3/B1
	WL 10B-2	UPL	Dominance Test	A11/F3	none
WEST	WL 39-1	WET	Dominance Test	F6	primary; C3
	WL 39-2	WET	Dominance Test	F6	primary; A2/A3
	WL 39-3	UPL	none	none	none
	WL 39-4	UPL	Dominance Test	none	none
	WL 39-5	WET	Dominance Test	A11/F6	no primary; D5 secondary
	WL 39-6	WET	Dominance Test	A11	primary; A2/A3
	WL 39-7	UPL	none	none	none
	WL 39-8	UPL	Dominance Test	none	none
	WL 39-9	WET	Dominance Test	A11/F3	primary; C3
	WL 39-10	UPL	Dominance Test	none	none
	WL 39-11	WET	Dominance Test	F3	primary; A3/C3. D5 secondary.
	WL 44-1	UPL	none	none	none
	WL 44-2	WET	Dominance Test	F6	primary; B1, B3, D1
	WL 44-3	WET	Dominance Test	A11/F3	primary; C3. D5 secondary
	WL 44-4	UPL	none	none	none
	WL 44-5	WET	Dominance Test	A12	no primary; D5 secondary
	WL 44-6	UPL	none	none	none
	WL 44-7	Wet	Dominance Test	A11/F3	primary; A2/A3/C1/C4
	WL 44-8	UPL	Dominance Test	none	none
	WL A19b-1	UPL	Dominance Test	none	none
WL A19b-2	WET	Dominance Test	F3	primary; A2/A3	
WL R15-1	WET	Dominance Test	A11	primary; B1. secondary D2	
WL R15-2	UPL	Dominance Test	none	none	
SOUTH RSA	WL 52A-1	WET	Dominance Test	F2	primary; A2/A3
	WL 52A-2	UPL	Dominance Test	none	none
	WL 52A-3	UPL	Dominance Test	A11/F3	none
	WL 52A-4	WET	Dominance Test	F2	primary; A3
	WL 52B-1	WET	Dominance Test	F2	primary; A2/A3
	WL 52B-2	UPL	Dominance Test	none	none
	WL D-2	WET	Dominance Test	F3	no primary; D2 secondary. Did not meet for hydro during March 2020 investigation.
	WL D-1	WET	Dominance Test	F4	primary; C3. secondary D2/D5. Did not meet for hydro during March 2020 investigation.
	WL E8-1	WET	Dominance Test	F3	primary; C3. secondary D2/D5
	WL DC-1	WET	Dominance Test	*other	primary; A2/A3
	WL DC-2	UPL	none	none	none
	WL DC-3	WET	Dominance Test	*other	primary; A3
	WL DC-4	UPL	Dominance Test	none	none
	WL DC-5	WET	Dominance Test	A11	none
	WL DC-6	UPL	none	none	none
	WL DMC2-1	WET	Dominance Test	A11	primary; A3
	WL DMC2-2	UPL	Dominance Test	A11	none
	WL E1-1	WET	Dominance Test	F6	primary; B1. secondary D5
	WL E1-2	UPL	Dominance Test	none	none
	WL E1-3	UPL	none	none	none
	WL E1-4	UPL	none	F3/F6	none
	WL E1-5	WET	Dominance Test	F6	none. Need hydro ck
	WL E1-6	WET	Dominance Test	F3	none. Secondary B10. need hydro ck
	WL G12-1	WET	Dominance Test	F3	primary; A2/A3
	WL G12-2	WET	Dominance Test	A11/F3	secondary C2/D2
	WL G12-3	WET	Dominance Test	A11/F3	no primary; C2/D2 secondary
	WL G12-4	UPL	Dominance Test	none	none
	WL G12-5	UPL	Dominance Test	F6	none. SP G12-5 is ~1.5 vertical feet above SP G12-6
	WL G12-6	WET	Dominance Test	F3	primary; A3
	WL G12-7	WET	Dominance Test	F3	no primary; secondary C2/D2
WL G12-8	UPL	Dominance Test	none	none	
WL G12-9	WET	Dominance Test	A11/F6	primary; C3.	

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: SP-1(UPL)
 Investigator(s): Kaylee Moser and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.472083 Long: -122.311132 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-1 is located east of the PacWest ball fields..

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	<u>90%</u> = Total Cover	_____	_____		Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>Rubus armeniacus</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
	<u>100%</u> = Total Cover	_____	_____	Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>None</u>	_____	_____	_____		1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		<u>X</u> 2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	<u>0%</u> = Total Cover	_____	_____		
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
	<u>0%</u> = Total Cover	_____	_____		
% Bare Ground in Herb Stratum	<u>100%</u>	_____	_____		

Remarks:
 Large percentage of plot covered in leaf litter; 6" deep.

SOIL **Sampling Point: SP-1(UPL)**

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-17	10YR 3/2	100				L	
17-18+	2.5Y 5/2	85	10YR 5/8	15		L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Remarks:
 0-17 inch layer is too bright to meet A12, and too deep to meet A11.

HYDROLOGY

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

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: SP-2(UPL)
 Investigator(s): Kaylee Moser and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.471943 Long: -122.311084 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-2 is located in a low spot in project area north of Wetlands 1 and 2.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Salix scouleriana</u>	<u>45%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
45% = Total Cover					Total % Cover of: _____ Multiply by: _____
5. _____	_____	_____	_____	OBL species _____ x 1 = _____	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				FACW species _____ x 2 = _____	
1. <u>Rubus armeniacus</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2. _____	_____	_____	_____	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
70% = Total Cover				Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)					1 - Rapid Test for Hydrophytic Vegetation
1. <u>Reynoutria japonica</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>		X 2 - Dominance Test is >50%
2. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
30% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>70%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-6	10YR 2/1	100					L	
6-9	2.5Y 3/3	98	10YR 4/6	2	C	M	SL	
9-17	10YR 3/1	60	10YR 2/1	40	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: SP-3(UPL)
 Investigator(s): Kaylee Moser and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.471865 Long: -122.311465 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-3 is located in a low spot in project area north of Wetlands 1 and 2.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	<u>None</u>					Number of Dominant Species
2.					That Are OBL, FACW, or FAC: <u>1</u> (A)	
3.					Total Number of Dominant	
4.					Species Across All Strata: <u>2</u> (B)	
		<u>0%</u>	= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)						
1.	<u>Rubus armeniacus</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
2.					Prevalence Index worksheet:	
3.						Total % Cover of: <u> </u> Multiply by: <u> </u>
4.					OBL species <u> </u> x 1 = <u> </u>	
5.					FACW species <u> </u> x 2 = <u> </u>	
		<u>60%</u>	= Total Cover		FAC species <u> </u> x 3 = <u> </u>	
Herb Stratum (Plot size: <u>r=1m</u>)						
1.	<u>Vinca major</u>	<u>100%</u>	<u>Yes</u>	<u>NOL</u>	FACU species <u> </u> x 4 = <u> </u>	
2.					UPL species <u> </u> x 5 = <u> </u>	
3.					Column Totals: <u> </u> (A) <u> </u> (B)	
4.					Prevalence Index = B/A = <u> </u>	
5.					Hydrophytic Vegetation Indicators:	
6.						<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
7.						<u> </u> 2 - Dominance Test is >50%
8.						<u> </u> 3 - Prevalence Index is ≤3.0 ¹
9.						<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10.						<u> </u> 5 - Wetland Non-Vascular Plants ¹
11.						<u> </u> Problematic Hydrophytic Vegetation (Explain) ¹
		<u>100%</u>	= Total Cover			¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1.						Hydrophytic Vegetation Present?
2.						
		<u>0%</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0%</u>						

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: SP-4(UPL)
 Investigator(s): Kaylee Moser and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.470996 Long: -122.312884 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	
			Yes <u> </u> No <u>X</u>

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-4 is located in a low spot next to Ditch 4 and meets two secondary indicators for wetland hydrology but does not meet any indicators for hydric soils.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
30% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)				FACW species _____ x 2 = _____	
1. <u>Rubus laciniatus</u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>	FAC species _____ x 3 = _____	
2. _____	_____	_____	_____	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
15% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>r=3m</u>)					1 - Rapid Test for Hydrophytic Vegetation
1. <u>Phalaris arundinacea</u>	<u>50%</u>	<u>Yes</u>	<u>FACW</u>		X 2 - Dominance Test is >50%
2. <u>Epilobium ciliatum</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>		3 - Prevalence Index is ≤3.0 ¹
3. <u>Ranunculus repens</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Geranium robertianum</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
100% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>r=1m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/31/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 1-1
 Investigator(s): Kathryn Seckel and Kaylee Moser Section, Township, Range: S21 T23N R4E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.470979 Long: -122.312076 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, 0" of precipitation was received on the day of fieldwork and 0.27" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located near the southern boundary of Wetland-1.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Salix scouleriana</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
20% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	FACW species _____ x 2 = _____	
1. <u>Rubus armeniacus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2. _____	_____	_____	_____	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
20% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		1 - Rapid Test for Hydrophytic Vegetation
1. <u>Phalaris arundinacea</u>	<u>95%</u>	<u>Yes</u>	<u>FACW</u>		X 2 - Dominance Test is >50%
2. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
95% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>	<u>0%</u>	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>5%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-7	10YR 3/2	100					L	
7-9	2.5Y 5/2	85	10YR 4/6	15	C	PL	LS	
9-16	2.5Y 4/2	95	10YR 4/4	5	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0; surface</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0; surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Parametrix conducted a hydrology investigation in March 2020 and documented 1 inch of surface water and the groundwater table/saturation level at the soil surface.

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-5	10YR 2/1	100					L	
5-6	2.5Y 5/2	99	10YR 4/6	1	C	M	Gr LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>Compact fill</u> Depth (inches): <u>6 inches</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
 Compacted road fill below 6 inches.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King State: WA Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: S21 T23N R04E Sampling Point: WL 2-1
 Investigator(s): Kaylee Moser Landform (hillslope, terrace, etc.): Depressional/Ditch Local relief (concave, convex, none): concave Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.470909 Long: -122.311749 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP 2-1 is located within a narrow wetland band of wetland 2 (north of upland island).

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:
1.	<u>None</u>				
2.					That Are OBL, FACW, or FAC: <u>3</u> (A)
3.					Total Number of Dominant
4.					Species Across All Strata: <u>3</u> (B)
		<u>0%</u>	<u>= Total Cover</u>		Percent of Dominant Species
					That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet:
1.	<u>Rubus armeniacus</u>	<u>8%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Populus balsamifera</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	OBL species <u> </u> x 1 = <u> </u>
3.					FACW species <u> </u> x 2 = <u> </u>
4.					FAC species <u> </u> x 3 = <u> </u>
5.					FACU species <u> </u> x 4 = <u> </u>
		<u>9%</u>	<u>= Total Cover</u>		UPL species <u> </u> x 5 = <u> </u>
					Column Totals: <u> </u> (A) <u> </u> (B)
					Prevalence Index = B/A = <u> </u>
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:
1.	<u>Epilobium ciliatum</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Phalaris arundinacea</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	<u>X</u> <u>2</u> - Dominance Test is >50%
3.	<u>Polystichum munitum</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	<u>3</u> - Prevalence Index is ≤3.0 ¹
4.					<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.					<u>5</u> - Wetland Non-Vascular Plants ¹
6.					Problematic Hydrophytic Vegetation (Explain) ¹
7.					¹ Indicators of hydric soil and wetland hydrology must be present.
8.					
9.					
10.					
11.					
		<u>75%</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present?
1.	<u>None</u>				
2.					
		<u>0%</u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>25%</u>					

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King State: WA Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL 2-2
 Investigator(s): Kathryn Seckel Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.470924 Long: -122.311612 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
			Yes _____ No <u>X</u>

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is located on the upland island edge within Wetland 2.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix scouleriana</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
5. _____	<u>30%</u> = Total Cover	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____
1. <u>Rubus armeniacus</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	FACW species _____ x 2 = _____
2. <u>Populus balsamifera</u>	<u>3%</u>	<u>No</u>	<u>FAC</u>	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species _____ x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
	<u>93%</u> = Total Cover	_____	_____	Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:
1. <u>None</u>	_____	_____	_____	1 - Rapid Test for Hydrophytic Vegetation _____
2. _____	_____	_____	_____	<u>X</u> 2 - Dominance Test is >50% _____
3. _____	_____	_____	_____	3 - Prevalence Index is ≤3.0 ¹ _____
4. _____	_____	_____	_____	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
5. _____	_____	_____	_____	5 - Wetland Non-Vascular Plants ¹ _____
6. _____	_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) ¹ _____
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>r=2m</u>)				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
	<u>0%</u> = Total Cover	_____	_____	
% Bare Ground in Herb Stratum	<u>100%</u>	_____	_____	

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 3/2	100					Gr SL	
12-20	10YR 4/3	80	10YR 5/2	20	D	M	Gr SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 2-3
 Investigator(s): Kathryn Seckel and Josh Wozniak Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.470931 Long: -122.311679 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located near a large blackberry and knotweed stand on upland hillslope.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1.	<u>None</u>					Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2.					Total Number of Dominant Species Across All Strata: <u>4</u> (B)		
3.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)		
4.					Prevalence Index worksheet:		
5.						Total % Cover of: <u> </u> Multiply by: <u> </u>	
0% = Total Cover					OBL species <u> </u> x 1 = <u> </u>		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				FACW species <u> </u> x 2 = <u> </u>		
1.	<u>Rubus armeniacus</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u> </u> x 3 = <u> </u>		
2.	<u>Populus balsamifera</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>	FACU species <u> </u> x 4 = <u> </u>		
3.					UPL species <u> </u> x 5 = <u> </u>		
4.					Column Totals: <u> </u> (A) <u> </u> (B)		
5.					Prevalence Index = B/A = <u> </u>		
27% = Total Cover					Hydrophytic Vegetation Indicators:		
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)					<u> </u> 1 - Rapid Test for Hydrophytic Vegetation	
1.	<u>Rumex acetosella</u>	<u>60%</u>	<u>Yes</u>	<u>FACU</u>		<u> </u> 2 - Dominance Test is >50%	
2.	<u>Poa pratensis</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		<u> </u> 3 - Prevalence Index is ≤3.0 ¹	
3.	<u>Lactuca serriola</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>		<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4.						<u> </u> 5 - Wetland Non-Vascular Plants ¹	
5.						<u> </u> Problematic Hydrophytic Vegetation (Explain) ¹	
6.						¹ Indicators of hydric soil and wetland hydrology must be present.	
7.						Hydrophytic Vegetation Present?	
8.							Yes <u> </u> No <u>X</u>
9.							
10.							
100% = Total Cover							
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)						
1.							
2.							
0% = Total Cover							
% Bare Ground in Herb Stratum <u>0%</u>							

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/2	100					Gr SL	
13-18	2.5Y 4/2	90	2.5Y 5/4	10	C	M	Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
---	---

Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 2-4
 Investigator(s): Kathryn Seckel and Josh Wozniak Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.471175 Long: -122.311188 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP in a forested upland dominated by willow species, red alder, and Himalyan blackberry.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:	
5. <u> </u>	<u>80%</u> = Total Cover	<u> </u>	<u> </u>		Total % Cover of: <u> </u> Multiply by: <u> </u>
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species <u> </u> x 1 = <u> </u>	
1. <u>Rubus armeniacus</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	FACW species <u> </u> x 2 = <u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u> </u> x 3 = <u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u> </u> x 4 = <u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)	
Herb Stratum (Plot size: <u>r=1m</u>)				Prevalence Index = B/A = <u> </u>	
1. <u>None</u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators:	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>X</u> <u>2</u> - Dominance Test is >50%
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>3</u> - Prevalence Index is ≤3.0 ¹
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>5</u> - Wetland Non-Vascular Plants ¹
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>		Problematic Hydrophytic Vegetation (Explain) ¹
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		¹ Indicators of hydric soil and wetland hydrology must be present.
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
Woody Vine Stratum (Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1. <u>None</u>	<u> </u>	<u> </u>	<u> </u>		
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
% Bare Ground in Herb Stratum <u>100%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-8	10YR 3/2	100				Gr SL	
8-20	10YR 4/3	100				Gr SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King State: WA Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL 2-5
 Investigator(s): Kathryn Seckel and Josh Wozniak Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.471160 Long: -122.311273 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
			Yes <u>X</u> No _____

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located along the eastern boundary of Wetland 2.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Salix scouleriana</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
60% = Total Cover				OBL species _____ x 1 = _____	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				FACW species _____ x 2 = _____	
1. <u>Salix scouleriana</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2. <u>Alnus rubra</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	FACU species _____ x 4 = _____	
3. <u>Rubus armeniacus</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
26% = Total Cover				Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)					
1. <u>Juncus effusus</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Ranunculus repens</u>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>		X 2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
95% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>5%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-18	10YR 3/2	95	7.5YR 5/6	5	C	M	Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 Assuming this SP to have 14 of more consecutive days of ponding or flooding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (following the Corps definition of wetland hydrology). Need to do a follow-up hydrology check.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 5-1
 Investigator(s): Kathryn Seckel and Josh Wozniak Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Depressional Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467243 Long: -122.311587 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
			Yes <u>X</u> No _____

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 5-1 is located near the southwest boundary of Wetland 5.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	<u>None</u>					Number of Dominant Species
2.					That Are OBL, FACW, or FAC: <u>3</u> (A)	
3.					Total Number of Dominant	
4.					Species Across All Strata: <u>3</u> (B)	
		<u>0%</u>	= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)						
1.	<u>Rubus armeniacus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
2.					Prevalence Index worksheet:	
3.						Total % Cover of: _____ Multiply by: _____
4.					OBL species _____ x 1 = _____	
5.					FACW species _____ x 2 = _____	
		<u>20%</u>	= Total Cover		FAC species _____ x 3 = _____	
Herb Stratum (Plot size: <u>r=1m</u>)						
1.	<u>Equisetum telmateia</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	FACU species _____ x 4 = _____	
2.	<u>Athyrium cyclosorum</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	UPL species _____ x 5 = _____	
3.					Column Totals: _____ (A) _____ (B)	
4.					Prevalence Index = B/A = _____	
5.					Hydrophytic Vegetation Indicators:	
6.						1 - Rapid Test for Hydrophytic Vegetation
7.						<u>X</u> 2 - Dominance Test is >50%
8.						3 - Prevalence Index is ≤3.0 ¹
9.						4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10.						5 - Wetland Non-Vascular Plants ¹
11.						Problematic Hydrophytic Vegetation (Explain) ¹
		<u>100%</u>	= Total Cover			¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1.	<u>None</u>					Hydrophytic Vegetation Present?
2.						
		<u>0%</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0%</u>						

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-14	10YR 4/1	95	10YR 3/4	5	C	M	Gr SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:
 Armored Channel.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Water Table Present? Yes <u>X</u> No <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> (includes capillary fringe)	Depth (inches): <u> </u> Depth (inches): <u>1"</u> Depth (inches): <u>surface</u>
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King State: WA Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL 5-2
 Investigator(s): Kathryn Seckel and Josh Wozniak Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Depressional Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467250 Long: -122.311628 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 5-2 is the upland paired pit to SP WL 5-11.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>None</u>				
2.					
3.					
4.					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rubus armeniacus</u>	20%	Yes	FAC	
2.					
3.					
4.					
5.					
		20% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1.	<u>Holcus lanatus</u>	50%	Yes	FAC	
2.	<u>Poa pratensis</u>	50%	Yes	FAC	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>none</u>				
2.					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-16	10YR 4/2	100					Gr LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:																																				
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;"><u>Primary Indicators (minimum of one required; check all that apply)</u></td> <td style="width: 33%;"><u>Secondary Indicators (2 or more required)</u></td> <td style="width: 33%;"></td> </tr> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Salt Crust (B11)</td> <td><input type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Aquatic Invertebrates (B13)</td> <td><input type="checkbox"/> Dry-Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> <td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> <td><input type="checkbox"/> Geomorphic Position (D2)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> <td><input type="checkbox"/> Shallow Aquitard (D3)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> <td><input type="checkbox"/> FAC-Neutral Test (D5)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</td> <td><input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)</td> </tr> <tr> <td><input type="checkbox"/> Surface Soil Cracks (B6)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> <td><input type="checkbox"/> Frost-Heave Hummocks (D7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> <td></td> </tr> </table>	<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>		<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>																																			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)																																		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)																																		
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)																																		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)																																		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)																																		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)																																		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)																																				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																				

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 5-3
 Investigator(s): Kathryn Seckel and Josh Wozniak Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467811 Long: -122.311111 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 5-3 is within the emergent lobe of Wetland 5 near the road.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:	
1.	<u>None</u>					Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2.					Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4.					Prevalence Index worksheet:	
5.						Total % Cover of: <u> </u> Multiply by: <u> </u>
0% = Total Cover					OBL species <u> </u> x 1 = <u> </u>	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					FACW species <u> </u> x 2 = <u> </u>	
1.	<u>Rubus armeniacus</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u> </u> x 3 = <u> </u>	
2.					FACU species <u> </u> x 4 = <u> </u>	
3.					UPL species <u> </u> x 5 = <u> </u>	
4.					Column Totals: <u> </u> (A) <u> </u> (B)	
5.					Prevalence Index = B/A = <u> </u>	
5% = Total Cover					Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)						1 - Rapid Test for Hydrophytic Vegetation
1.	<u>Poa pratensis</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
2.						3 - Prevalence Index is ≤3.0 ¹
3.						4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.						5 - Wetland Non-Vascular Plants ¹
5.						Problematic Hydrophytic Vegetation (Explain) ¹
6.						¹ Indicators of hydric soil and wetland hydrology must be present.
7.						Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
8.						
9.						
10.						
90% = Total Cover						
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1.	<u>None</u>					
2.						
0% = Total Cover						
% Bare Ground in Herb Stratum <u>10%</u>						

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-3	10YR 4/2	95	10YR 4/6	5	C	M	SCL	
3-15	10YR 4/2	80	10YR 4/6	20	C	M	SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Water Table Present? Yes <u>X</u> No <u> </u> Saturation Present? (includes capillary fringe) Yes <u>X</u> No <u> </u> Depth (inches): <u> </u> Depth (inches): <u>10"</u> Depth (inches): <u>surface</u>	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-15	10YR 3/2	100					SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/25/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 6-3
 Investigator(s): Matthew Murphy and Kaylee Moser Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.468042 Long: -122.311192 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the Seattle Tacoma International NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located in wetland 6. SP is located west of service road that runs north to south under orange flight tower bridge. Hydrology is anticipated to be within 12 inches in early growing season.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83%</u> (A/B)
1. <u>Alnus rubra</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Crataegus monogyna</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>100%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>(A)</u> (B) Prevalence Index = B/A = _____
1. <u>Alnus rubra</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus armeniacus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Populus balsamifera</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>70%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Polystichum munitum</u>		<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Poa pratensis</u>		<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Stellaria media</u>		<u>1%</u>	<u>No</u>	<u>FACU</u>	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>16%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum		<u>40%</u>			

Remarks:
 Leaf litter on bare ground.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					L	
2-10	10YR 4/2	100					SL	
10-19	10YR 4/2	90	7.5YR 4/6	10	C	M	Gr SL	

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

³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present):	Hydric Soil Present?
Type: <u>None</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): <u>N/A</u>	

Remarks:

HYDROLOGY

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

Field Observations:		Wetland Hydrology Present?
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	Depth (inches): <u>12"</u>	

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/25/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 6-4
 Investigator(s): Matthew Murphy and Kaylee Moser Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.468005 Long: -122.311266 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma International NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is upslope of south end of Wetland 6. SP WL 6-4, located within disturbed soils, is approximately 5 vertical inches above SP WL 6-3.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
1. <u>Crataegus monogyna</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus balsamifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>80%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
1. <u>Rubus armeniacus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>20%</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Polystichum munitum</u>	<u>80%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Juncus effusus</u>	<u>10%</u>	<u>No</u>	<u>FACW</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>90%</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u>None</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum	<u>20%</u>			

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 6-1
 Investigator(s): Kathryn Seckel and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Depressional Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.468677 Long: -122.311786 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 6-1 is located near the road along northern upland edge of wetland 6. SP WL 6-1 is the upland paired plot to SP WL 6-2.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Alnus rubra</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>60%</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>(A)</u> _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>20%</u> = Total Cover			
Herb Stratum	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Ranunculus repens</u>		<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Phalaris arundinacea</u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>95%</u> = Total Cover			
Woody Vine Stratum	(Plot size: <u>r=2m</u>)				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum <u>5%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-6	10YR 2/2	100				L	
6-11	2.5Y 5/3	95	2.5Y 4/3	5		S	
11-16	2.5Y 5/3	90	2.5Y 4/3	5		S	
			10YR 5/8	5		S	

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

³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 6-2
 Investigator(s): Kathryn Seckel and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): _____ Hillslope _____ Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.468599 Long: -122.311791 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 6-2 is located along the northern boundary of Wetland 6.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
1. <u>Salix lucida ssp. lasiandra</u>	<u>50%</u>	<u>Yes</u>	<u>FACW</u>		
2. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>(A)</u> _____ (B) Prevalence Index = B/A = _____	
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>50%</u> = Total Cover					
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Rubus spectabilis</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.	
2. <u>Salix scouleriana</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		
3. <u>Cornus alba</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>45%</u> = Total Cover					
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Equisetum telmateia</u>	<u>45%</u>	<u>Yes</u>	<u>FACW</u>		
2. <u>Ranunculus repens</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>		
3. <u>Urtica dioica</u>	<u>3%</u>	<u>No</u>	<u>FAC</u>		
4. <u>Polystichum munitum</u>	<u>3%</u>	<u>No</u>	<u>FACU</u>		
5. <u>Athyrium cyclosorum</u>	<u>3%</u>	<u>No</u>	<u>FAC</u>		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>79%</u> = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>none</u>	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>21%</u>					

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/25/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 7-1
 Investigator(s): Matthew Murphy and Kaylee Moser Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Gravel Road Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.468709 Long: -122.311704 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
		Yes _____	No <u>X</u>

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located 1 meter north of service road. SP WL 7-1 is the paired upland plot to SP 7-2 for Wetland 7.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>1m</u>)				
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1m</u>)				
1. <u>Ranunculus repens</u>		95%	Yes	FAC	
2. <u>Poa pratensis</u>		4%	No	FAC	
3. <u>Urtica dioica</u>		1%	No	FAC	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>1m</u>)				
1. <u>None</u>					
2. _____					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:
 1 meter sized plots

SOIL **Sampling Point:** WL 7-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Gr L	

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

³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>Road Fill</u> Depth (inches): <u>4"</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Compacted road fill at 4 inches.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> ; surface (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Gravel road at 4 inches is perching surface water.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/25/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 7-2
 Investigator(s): Matthew Murphy and Kaylee Moser Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): _____ Depression _____ Local relief (concave, convex, none): concave Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.468728 Long: -122.311677 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 7-2 is near the southern boundary of Wetland 7.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		10%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
10% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Ranunculus repens</u>		60%	Yes	FAC	
2. <u>Phalaris arundinacea</u>		20%	Yes	FACW	
3. <u>Urtica dioica</u>		5%	No	FAC	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
85% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. _____					
0% = Total Cover					
% Bare Ground in Herb Stratum <u>15%</u>					

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 10-1
 Investigator(s): Josh Wozniak Section, Township, Range: S20 T23N R04E
 Landform (hillslope, terrace, etc.): Shallow Basin Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467843 Long: -122.315019 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	
			Yes <u>X</u> No <u> </u>

Precipitation:
 According to the Seattle-Tacoma Intl Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 Wetland plot for wetland 10. Located east of SP wetland 10-2 (upland) and service road.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
60% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>Rubus spectabilis</u>	<u>65%</u>	<u>Yes</u>	<u>FAC</u>	FACW species _____ x 2 = _____	
2. <u>Rubus armeniacus</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
70% = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Athyrium cyclosorum</u>	<u>45%</u>	<u>Yes</u>	<u>FAC</u>		1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		X 2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
45% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>55%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-18	7.5YR 2.5/1	100				L	with organic content
18-22	10YR 3/1	100				L	with organic content

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Water Table Present? Yes <u>X</u> No <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> (includes capillary fringe)	Depth (inches): <u> </u> Depth (inches): <u>8"</u> Depth (inches): <u>surface</u>	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-13	2.5Y 3/2	100					L	
13-14	2.5Y 4/2	90	10YR 4/6	10			SL	
14-17	2.5Y 3/2	100					L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 10B-1
 Investigator(s): Josh Wozniak and Kaylee Moser Section, Township, Range: S20 T23N R04E
 Landform (hillslope, terrace, etc.): Depressional Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467843 Long: -122.315019 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 Wetland SP in "New" Wetland (10B). 10B is a small depressional wetland south of Wetland 10.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>Populus balsamifera</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		<u>60%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1.	<u>None</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	<u>None</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>none</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum		<u>95%</u>			

Remarks:
 Soil surface covered with leaf litter.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					L	
3-15	10YR 4/1	90	10YR 4/6	10	C	M	Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u> Depth (inches): <u>12"</u> Depth (inches): <u>9"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 10B-2
 Investigator(s): Kathryn Seckel and Matthew Murphy Section, Township, Range: S20 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467197 Long: -122.315145 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): ood-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the Seattle International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 Upland paired plot with SP WL 10B-1. SP WL 10B-2 is approximately 2.5 vertical feet above SP WL 10B-1(WET).

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>Populus balsamifera</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		<u>75%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>Rubus armeniacus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Populus balsamifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		<u>60%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	<u>None</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>None</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum		<u>100%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-9	10YR 3/1	100					L	
9-16	10YR 4/2	99	10YR 4/6	1	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

<p>Restrictive Layer (if present):</p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p>Hydric Soil Present?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Remarks:

HYDROLOGY

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

<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 SP WL 10B-2 is approximately 2.5 vertical feet above SP WL 10B-1 (WET).

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 11-1
 Investigator(s): Josh Wozniak and Kaylee Moser Section, Township, Range: S20 T23N R04E
 Landform (hillslope, terrace, etc.): Depressional Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467843 Long: -122.315019 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 Sample plot 11-1 is located within Wetland 11.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	<u>60%</u> = Total Cover	_____	_____		Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>None</u>	_____	_____	_____	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
Herb Stratum (Plot size: <u>r=1m</u>)				Prevalence Index = B/A = _____	
1. <u>None</u>	_____	_____	_____	Hydrophytic Vegetation Indicators:	
2. _____	_____	_____	_____		1 - Rapid Test for Hydrophytic Vegetation
3. _____	_____	_____	_____		<u>X</u> 2 - Dominance Test is >50%
4. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
5. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
7. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
8. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>none</u>	_____	_____	_____		
2. _____	_____	_____	_____		
% Bare Ground in Herb Stratum <u>100%</u>					

Remarks:
 Soil surface covered with leaf litter.

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-3	10YR 2/1	100					L	
3-15	10YR 4/1	90	10YR 4/6	10	C	M	Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>12"</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>9"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 11-2
 Investigator(s): Kathryn Seckel and Matthew Murphy Section, Township, Range: S20 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.467197 Long: -122.315145 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 Upland paired plot with SP WL 11-1. SP WL 11-2 is approximately 2.5 vertical feet above SP WL 11-1 (WET).

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Populus balsamifera</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>75%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
1. <u>Rubus armeniacus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus balsamifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>60%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>None</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>100%</u>				
Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-9	10YR 3/1	100					L	
9-16	10YR 4/2	99	10YR 4/6	1	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 SP WL 11-2 is approximately 2.5 vertical feet above SP WL 11-1 (WET).

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/04/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-1
 Investigator(s): Josh Wozniak and Matthew Murphy Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452490 Long: -122.321964 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located near the interior of wetland 39, at the base of a steep slope.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Alnus rubra</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>20%</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		<u>85%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>85%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Ranunculus repens</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Athyrium cyclosorum</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Equisetum telmateia</u>		<u>15%</u>	<u>Yes</u>	<u>FACW</u>	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>75%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum <u>25%</u>					

Remarks:



ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Project No.: 553-2912-002

US Army Corps of Engineers

Western Mountains, Valleys, and Coast Region (Version 2.0)

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/04/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-2
 Investigator(s): Josh Wozniak and Matthew Murphy Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452224 Long: -122.322484 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 39-2 is located within an old road feature in the west end of Wetland 39.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		0% = Total Cover			
Sapling/Shrub Stratum	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		25%	Yes	FAC	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		25% = Total Cover			
Herb Stratum	(Plot size: <u>r=1m</u>)				
1. <u>Ranunculus repens</u>		80%	Yes	FAC	
2. <u>Equisetum telmateia</u>		19%	Yes	FACW	
3. <u>Geum macrophyllum</u>		1%	No	FAC	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
		100% = Total Cover			
Woody Vine Stratum	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:



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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/04/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-3
 Investigator(s): Josh Wozniak and Matthew Murphy Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452171 Long: -122.322529 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is located south of ditch feature.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	<u>Acer macrophyllum</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3.	_____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)
4.	_____	_____	_____	_____	Prevalence Index worksheet:
20% = Total Cover					
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					
1.	<u>Rubus armeniacus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	OBL species _____ x 1 = _____
2.	<u>Corylus cornuta</u>	<u>35%</u>	<u>Yes</u>	<u>FACU</u>	FACW species _____ x 2 = _____
3.	<u>Prunus avium</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	FAC species _____ x 3 = _____
4.	<u>Rubus ursinus</u>	<u>4%</u>	<u>No</u>	<u>FACU</u>	FACU species _____ x 4 = _____
5.	_____	_____	_____	_____	UPL species _____ x 5 = _____
89% = Total Cover					Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>r=1m</u>)					
1.	<u>Polystichum munitum</u>	<u>70%</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index = B/A = _____
2.	<u>Equisetum telmateia</u>	<u>10%</u>	<u>No</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
3.	<u>Geranium robertianum</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
81% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1.	<u>Hedera helix</u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2.	_____	_____	_____	_____	
19% = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks:
 Sample plots semi-circular.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/04/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-4
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.451919 Long: -122.321843 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 39-4 is an upland pit upslope of eastern boundary of wetland 39.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>					
2. _____					Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____					Prevalence Index worksheet:
5. _____					
0% = Total Cover					OBL species _____ x 1 = _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					FACW species _____ x 2 = _____
1. <u>Rubus armeniacus</u>		100%	Yes	FAC	FAC species _____ x 3 = _____
2. _____					FACU species _____ x 4 = _____
3. _____					UPL species _____ x 5 = _____
4. _____					Column Totals: _____ (A) _____ (B)
5. _____					Prevalence Index = B/A = _____
100% = Total Cover					Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>r=1m</u>)					<u>1</u> - Rapid Test for Hydrophytic Vegetation
1. <u>Equisetum telmateia</u>		1%	No	FACW	<u>X</u> 2 - Dominance Test is >50%
2. _____					<u>3</u> - Prevalence Index is ≤3.0 ¹
3. _____					<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____					<u>5</u> - Wetland Non-Vascular Plants ¹
5. _____					_____ Problematic Hydrophytic Vegetation (Explain) ¹
6. _____					¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____					Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____					
9. _____					
10. _____					
11. _____					
1% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>					
2. _____					
0% = Total Cover					
% Bare Ground in Herb Stratum <u>99%</u>					

Remarks:



ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Project No.: 553-2912-002

US Army Corps of Engineers
 Western Mountains, Valleys, and Coast Region (Version 2.0)

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/04/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-5
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.451982 Long: -122.321820 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located along eastern boundary of Wetland 39.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>None</u>						Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____					Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____						
4. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
		0% = Total Cover				
Sampling/Shrub Stratum (Plot size: <u>r=2m</u>)						
1. <u>Rubus armeniacus</u>		95%	Yes	FAC	Prevalence Index worksheet:	
2. _____						Total % Cover of: _____ Multiply by: _____
3. _____					OBL species _____ x 1 = _____	
4. _____					FACW species _____ x 2 = _____	
5. _____					FAC species _____ x 3 = _____	
		95% = Total Cover			FACU species _____ x 4 = _____	
Herb Stratum (Plot size: <u>r=1m</u>)						
1. <u>Equisetum telmateia</u>		20%	Yes	FACW	UPL species _____ x 5 = _____	
2. <u>Athyrium cyclosorum</u>		5%	No	FAC	Column Totals: _____ (A) _____ (B)	
3. <u>Galium aparine</u>		5%	No	FACU	Prevalence Index = B/A = _____	
4. _____					Hydrophytic Vegetation Indicators:	
5. _____						1 - Rapid Test for Hydrophytic Vegetation
6. _____						<u>X</u> 2 - Dominance Test is >50%
7. _____						3 - Prevalence Index is ≤3.0 ¹
8. _____						4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9. _____						5 - Wetland Non-Vascular Plants ¹
10. _____						Problematic Hydrophytic Vegetation (Explain) ¹
11. _____					¹ Indicators of hydric soil and wetland hydrology must be present.	
		30% = Total Cover			Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1. <u>None</u>						
2. _____						
		0% = Total Cover				
% Bare Ground in Herb Stratum <u>70%</u>						

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/17/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-6
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452126 Long: -122.321510 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is located along the northern boundary of of wetland 39 within a lobe near the stormwater pond.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		90%	Yes	FAC	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		90% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Ranunculus repens</u>		50%	Yes	FAC	
2. <u>Chamaenerion angustifolium</u>		40%	Yes	FACU	
3. <u>Equisetum telmateia</u>		10%	No	FACW	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:



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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/17/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-7
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452174 Long: -122.321523 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-39-7 located upslope of 39-6, upslope of lobe of wetland 39 near storm water pond.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	<u>Acer macrophyllum</u>	<u>90%</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Alnus rubra</u>	<u>20%</u>	<u>No</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
110% = Total Cover					OBL species <u> </u> x 1 = <u> </u>
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					FACW species <u> </u> x 2 = <u> </u>
1.	<u>Rubus armeniacus</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u> </u> x 3 = <u> </u>
2.	<u>Oemleria cerasiformis</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	FACU species <u> </u> x 4 = <u> </u>
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index = B/A = <u> </u>
95% = Total Cover					Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>r=1m</u>)					<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
1.	<u>None</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 2 - Dominance Test is >50%
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 3 - Prevalence Index is ≤3.0 ¹
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5 - Wetland Non-Vascular Plants ¹
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain) ¹
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present.
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present?
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
11.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1.	<u>None</u>	<u> </u>	<u> </u>	<u> </u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0% = Total Cover					
% Bare Ground in Herb Stratum <u>5%</u>					

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/17/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-8
 Investigator(s): Josh Wozniak and Matthew Murphy Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452795 Long: -122.321422 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 39-8 is located upslope of the eastern boundary of Wetland 39.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	<u>Alnus rubra</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3.	_____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4.	_____	_____	_____	_____	Prevalence Index worksheet:	
5.	_____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
80% = Total Cover					OBL species _____ x 1 = _____	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					FACW species _____ x 2 = _____	
1.	<u>Rubus armeniacus</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2.	_____	_____	_____	_____	FACU species _____ x 4 = _____	
3.	_____	_____	_____	_____	UPL species _____ x 5 = _____	
4.	_____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5.	_____	_____	_____	_____	Prevalence Index = B/A = _____	
90% = Total Cover					Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)						
1.	<u>Geranium robertianum</u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>		1 - Rapid Test for Hydrophytic Vegetation
2.	<u>Polystichum munitum</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>		<u>X</u> 2 - Dominance Test is >50%
3.	<u>Ranunculus repens</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>		3 - Prevalence Index is ≤3.0 ¹
4.	<u>Geum macrophyllum</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.	_____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6.	_____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7.	_____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8.	_____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
9.	_____	_____	_____	_____		
10.	_____	_____	_____	_____		
18% = Total Cover						
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1.	<u>None</u>	_____	_____	_____		
2.	_____	_____	_____	_____		
82% = Total Cover						
% Bare Ground in Herb Stratum <u>0%</u>						

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/17/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-9
 Investigator(s): Josh Wozniak Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452848 Long: -122.321474 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 39-9 is located near the eastern boundary of Wetland 39. Soils previous graded and developed. Strong signs of hydric soils.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Alnus rubra</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					
4. _____					
		<u>60%</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					
4. _____					
5. _____					
		<u>80%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u> </u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> <u>5</u> - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>0%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. _____					
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum <u>100%</u>					

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/17/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 39-10
 Investigator(s): Josh Wozniak Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.453039 Long: -122.320707 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 39-10 is located upslope of the eastern boundary of Wetland 39.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		90%	Yes	FAC	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		90% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Ranunculus repens</u>		40%	Yes	FAC	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
		40% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>60%</u>			

Remarks:



SOIL							Sampling Point: WL 39-10	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	2.5Y 5/3	100					CL	
3-7	2.5Y 5/3	75	10YR 4/6	15	C	M	CL	
			2.5Y 5/2	10	D	M		
7-13	2.5Y 5/3	97	2.5Y 6/2	2	D	M	CL	
			5YR 3/4	1	C	M		
13-16	10YR 5/2	85	10YR 6/3	10	D	M	CL	
			7.5YR 5/8	5	C	M		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. ³ Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)								
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):				Indicators for Problematic Hydric Soils³:				
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> 2 cm Muck (A10)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Red Parent Material (TF2)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Depleted Matrix (F3)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Redox Dark Surface (F6)						
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Depleted Dark Surface (F7)						
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Redox Depressions (F8)						
Restrictive Layer (if present):				Hydric Soil Present? Yes _____ No <u> X </u>				
Type: <u>None</u>								
Depth (inches): <u>N/A</u>								
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:								
<u>Primary Indicators (minimum of one required; check all that apply)</u>				<u>Secondary Indicators (2 or more required)</u>				
<input type="checkbox"/> Surface Water (A1)		<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)		<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)				
<input type="checkbox"/> High Water Table (A2)		<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Drainage Patterns (B10)				
<input type="checkbox"/> Saturation (A3)		<input type="checkbox"/> Aquatic Invertebrates (B13)		<input type="checkbox"/> Dry-Season Water Table (C2)				
<input type="checkbox"/> Water Marks (B1)		<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)				
<input type="checkbox"/> Sediment Deposits (B2)		<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)		<input type="checkbox"/> Geomorphic Position (D2)				
<input type="checkbox"/> Drift Deposits (B3)		<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Shallow Aquitard (D3)				
<input type="checkbox"/> Algal Mat or Crust (B4)		<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> FAC-Neutral Test (D5)				
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)		<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)				
<input type="checkbox"/> Surface Soil Cracks (B6)		<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Frost-Heave Hummocks (D7)				
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)								
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)								
Field Observations:				Wetland Hydrology Present? Yes _____ No <u> X </u>				
Surface Water Present?		Yes _____	No <u> X </u>	Depth (inches): _____				
Water Table Present?		Yes _____	No <u> X </u>	Depth (inches): _____				
Saturation Present? (includes capillary fringe)		Yes _____	No <u> X </u>	Depth (inches): _____				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/17/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 39-11
 Investigator(s): Kathryn Seckle and Josh Wozniak Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452995 Long: -122.320880 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 35 to 60 percen - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 39-11 is located near the northeastern boundary of Wetland 39.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>					
2. _____					Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____					
4. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
0% = Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet:
1. <u>Rubus armeniacus</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					OBL species _____ x 1 = _____
3. _____					FACW species _____ x 2 = _____
4. _____					FAC species _____ x 3 = _____
5. _____					FACU species _____ x 4 = _____
80% = Total Cover					UPL species _____ x 5 = _____
					Column Totals: _____ (A) _____ (B)
					Prevalence Index = B/A = _____
Herb Stratum	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:
1. <u>Equisetum telmateia</u>		<u>25%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>		<u>10%</u>	<u>Yes</u>	<u>FAC</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Phalaris arundinacea</u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Athyrium cyclosorum</u>		<u>1%</u>	<u>No</u>	<u>FAC</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____					<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____					<input type="checkbox"/> Problematic Hydrophytic Vegetation (Explain) ¹
7. _____					¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____					
9. _____					
10. _____					
11. _____					
41% = Total Cover					
Woody Vine Stratum	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____					
0% = Total Cover					
% Bare Ground in Herb Stratum		<u>59%</u>			

Remarks:



ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Project No.: 553-2912-002

US Army Corps of Engineers
 Western Mountains, Valleys, and Coast Region (Version 2.0)

SOIL							Sampling Point: 39-11
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture
0-4	10YR 4/2	80	10YR 5/6	10	C	M	SiCL
			2.5Y 4/4	5	C	M	SiCL
			5GY 5/1	5	C	M	SiCL
4-17	2.5Y 4/2	80	5GY 5/1	10	C	M	SiCL
			7.5YR 4/6	10	C	M	SiCL
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. ³ Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)							
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):				Indicators for Problematic Hydric Soils³:			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)			<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)				
							³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present):				Hydric Soil Present?			
Type: <u>None</u>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Depth (inches): <u>N/A</u>							
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indicators (2 or more required)			
Primary Indicators (minimum of one required; check all that apply)							
<input type="checkbox"/> Surface Water (A1)			<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)			<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> High Water Table (A2)			<input type="checkbox"/> Salt Crust (B11)			<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)			<input type="checkbox"/> Aquatic Invertebrates (B13)			<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)			<input type="checkbox"/> Hydrogen Sulfide Odor (C1)			<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Sediment Deposits (B2)			<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)			<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Drift Deposits (B3)			<input type="checkbox"/> Presence of Reduced Iron (C4)			<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Algal Mat or Crust (B4)			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)			<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Iron Deposits (B5)			<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)			<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Surface Soil Cracks (B6)			<input type="checkbox"/> Other (Explain in Remarks)			<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)							
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)							
Field Observations:				Wetland Hydrology Present?			
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u> </u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u> </u>				
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches): <u>10"</u>				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							
Oxidized rhizospheres at 9 inches.							

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 44-1
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: S29 T23N R4E
 Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): convex Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.446536 Long: -122.321164 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 44-1(UPL) is located upslope of the western boundary of Wetland 44.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u> 2 </u> (A) Total Number of Dominant Species Across All Strata: <u> 4 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u> 50% </u> (A/B)
1.	<u>Populus balsamifera</u>	<u>85%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>85%</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>Rubus armeniacus</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Rubus ursinus</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>85%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Polystichum munitum</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Geranium robertanum</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
11.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>30%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>None</u>	<u> </u>	<u> </u>	<u> </u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum <u> 70% </u>					

Remarks:



SOIL							Sampling Point:	WL 44-1
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					L	
4-16	10YR 4/2	100					Gr SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 44-2
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: S29 T23N R4E
 Landform (hillslope, terrace, etc.): Stream bank Local relief (concave, convex, none): concave Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.446566 Long: -122.321066 Datum: ?
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: PEM1Ch
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 The SP is located near the edge of a stream channel near the northern boundary of the wetland The soil is disturbed and there are large boulders present in/near the stream channel.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u> 3 </u> (A) Total Number of Dominant Species Across All Strata: <u> 4 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u> 75% </u> (A/B)
1.	<u>Populus balsamifera</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Salix lucida ssp. Lasiandra</u>	<u>20%</u>	<u>No</u>	<u>FACW</u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>120%</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
1.	<u>Rubus armeniacus</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Prunus avium</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Acer macrophyllum</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>95%</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
1.	<u>Polystichum munitum</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Equisetum telmateia</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>	
3.	<u>Geranium robertianum</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
11.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>16%</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1.	<u>None</u>	<u> </u>	<u> </u>	<u> </u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>0%</u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum		<u>84%</u>			

Remarks:

SOIL						Sampling Point: WL 44-2	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-11	10YR 2/1	95	7.5YR 4/6	5	C		L
							redox on rock faces
							dominated by quarry s

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: <u>none</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 44-3
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: S29 T23N R5E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.446951 Long: -122.321039 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-44-3(WET) is located near the northern boundary of Wetland 44.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
1.	<u>Salix lucida ssp. Lasiandra</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Alnus rubra</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>40%</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					
1.	<u>Rubus spectabilis</u>	<u>3%</u>	<u>No</u>	<u>FAC</u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>3%</u> = Total Cover			
Herb Stratum (Plot size: <u>r=1m</u>)					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.01 <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5 - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
1.	<u>Athyrium cyclosorum</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Equisetum telmateia</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
11.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>80%</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>r=2m</u>)					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1.	<u>None</u>	<u>100%</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>100%</u> = Total Cover			
% Bare Ground in Herb Stratum <u>20%</u>					

Remarks:



SOIL						Sampling Point:	WL 44-3
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-2	10YR 2/1	100					L
2-16	10YR 4/1	90	10YR 4/6	5	C	M	SL
			7.5YR 4/4	5	C	M	

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):	Hydric Soil Present?
Type: <u>none</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): <u>N/A</u>	

Remarks:

HYDROLOGY

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

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

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

Remarks:
oxidized rhizospheres at 7"

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 44-4
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: S29 T23N R5E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.447021 Long: -122.321047 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-44-4 is located upslope of the Wetland 44 northern boundary.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>1=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:	
1. <u>Acer macrophyllum</u>		<u>80%</u>	<u>Yes</u>	<u>FACU</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____					Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____						
4. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)	
5. _____						
<u>80%</u> = Total Cover					Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: <u>1=2m</u>)						
1. <u>Prunus avium</u>		<u>15%</u>	<u>Yes</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____	
2. _____					OBL species _____ x 1 = _____	
3. _____					FACW species _____ x 2 = _____	
4. _____					FAC species _____ x 3 = _____	
5. _____					FACU species _____ x 4 = _____	
<u>15%</u> = Total Cover					UPL species _____ x 5 = _____	
Herb Stratum (Plot size: <u>1=1m</u>)					Column Totals: _____ (A) _____ (B)	
1. <u>Equisetum telmateia</u>		<u>5%</u>	<u>Yes</u>	<u>FACW</u>	Prevalence Index = B/A = _____	
2. _____					Hydrophytic Vegetation Indicators:	
3. _____						1 - Rapid Test for Hydrophytic Vegetation
4. _____						2 - Dominance Test is >50%
5. _____						3 - Prevalence Index is ≤3.01
6. _____						4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. _____						5 - Wetland Non-Vascular Plants ¹
8. _____						Problematic Hydrophytic Vegetation (Explain) ¹
9. _____						<small>¹Indicators of hydric soil and wetland hydrology must</small>
10. _____						be present.
11. _____						
<u>5%</u> = Total Cover						Hydrophytic Vegetation Present?
Woody Vine Stratum (Plot size: <u>10'</u>)						
1. <u>Hedera helix</u>		<u>100%</u>	<u>Yes</u>	<u>FACU</u>	Yes <u> </u> No <u>X</u>	
2. _____						
<u>100%</u> = Total Cover						
% Bare Ground in Herb Stratum <u>95%</u>						

Remarks:



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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 44-5
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: S29 T23N R5E
 Landform (hillslope, terrace, etc.): _____ Slope _____ Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.446823 Long: -122.320690 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-44-5 is within Wetland 44 near the eastern boundary.

VEGETATION

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
1. <u><i>Alnus rubra</i></u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>25%</u> = Total Cover				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Rubus spectabilis</i></u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u><i>Rubus armeniacus</i></u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>80%</u> = Total Cover				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants1 Problematic Hydrophytic Vegetation (Explain)1 <small>1Indicators of hydric soil and wetland hydrology must be present.</small>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Equisetum telmateia</i></u>	<u>50%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u><i>Polystichum munitum</i></u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>60%</u> = Total Cover				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>40%</u>				

Remarks:

SOIL						Sampling Point: 44-5	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features			Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	
0-16	10YR 2/1	100					L
16-20	10YR 4/2	90	7.5YR 4/4	10	C	M	L

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils3:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10)
	<input type="checkbox"/> Red Parent Material (TF2)
	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
	<input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Monitoring well data from Well 44-1 (located approximately 20 feet west of SP WL 44-5) provided by the Port of Seattle shows adequate wetland hydrology.

SOIL						Sampling Point: 44-6	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-4	10YR 3/2	100					L
4-16	10YR 4/2	99	10YR 5/4	1	C	M	L

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 44-7
 Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S29 T23N R5E
 Landform (hillslope, terrace, etc.): _____ Hillslope _____ Local relief (concave, convex, none): concave Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.446510 Long: -122.320432 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-44-7 is located within Wetland 44 near the eastern boundary.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
1. <u>Rubus armeniacus</u>		90%	Yes	FAC	
2. <u>Rubus spectabilis</u>		5%	No	FAC	
3. _____					
4. _____					
95% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>Equisetum telmateia</u>		25%	Yes	FACW	
2. <u>Athyrium cyclosorum</u>		10%	Yes	FAC	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
35% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. _____					
2. _____					
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>65%</u>				

Remarks:

SOIL						Sampling Point: 44-7	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-8	10YR 3/1	100					L
8-10	10YR 3/2	90	10YR 4/6	10	C	M	L
10-18	2.5YR 4/1	80	7.5YR 6/8	20	C	M	L

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):	Hydric Soil Present?
Type: <u>none</u>	Yes <u>X</u> No <u> </u>
Depth (inches): <u>N/A</u>	

Remarks:

HYDROLOGY

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

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes <u> </u> No <u>X</u>	Yes <u>X</u> No <u> </u>
Water Table Present? Yes <u>X</u> No <u> </u>	
Saturation Present? (includes capillary fringe) Yes <u>X</u> No <u> </u>	
Depth (inches): <u> </u>	
Depth (inches): <u>3</u>	
Depth (inches): <u>0 (surface)</u>	

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

Remarks:
C4 based on positive alpha-alpha-dipyridyl test papers.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 44-8
 Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S29 T23N R5E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.446538 Long: -122.320311 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-8 is located upslope of the eastern boundary of Wetland 44.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u><i>Alnus rubra</i></u>		<u>25%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____		_____	_____	_____	Prevalence Index worksheet:	
25% = Total Cover						Total % Cover of: _____ Multiply by: _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	OBL species _____ x 1 = _____	
1. <u><i>Rubus armeniacus</i></u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	FACW species _____ x 2 = _____	
2. <u><i>Rubus spectabilis</i></u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
3. _____		_____	_____	_____	FACU species _____ x 4 = _____	
4. _____		_____	_____	_____	UPL species _____ x 5 = _____	
5. _____		_____	_____	_____	Column Totals: _____ (A) _____ (B)	
85% = Total Cover					Prevalence Index = B/A = _____	
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1. <u><i>Equisetum telmateia</i></u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>		1 - Rapid Test for Hydrophytic Vegetation
2. _____		_____	_____	_____		X 2 - Dominance Test is >50%
3. _____		_____	_____	_____		3 - Prevalence Index is ≤3.01
4. _____		_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____		_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____		_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____		_____	_____	_____		<small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
8. _____		_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
9. _____		_____	_____	_____		
10. _____		_____	_____	_____		
11. _____		_____	_____	_____		
60% = Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>		<u>0%</u>	_____	_____		
2. _____		_____	_____	_____		
0% = Total Cover						
% Bare Ground in Herb Stratum <u>40%</u>						

Remarks:



SOIL								Sampling Point: 44-8
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2		
0-2	10YR 2/2	100					L	
2-12	10YR 3/3	100					L	
12-16	10YR 3/3	97	7.5YR 4/6	3	C	M	L	

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):	Hydric Soil Present?
Type: <u>none</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth (inches): <u>N/A</u>	

Remarks:
The top 6 inches have charcoal debris.

HYDROLOGY

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

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/24/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 52A-1
 Investigator(s): Aaron Thom, Kaylee Moser Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429672 Long: -122.304194 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: R4SBC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 Wetland plot on west side of Wetland 52A, within former golf course area.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	95%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
95% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	FACW species _____ x 2 = _____	
1. <u>Rubus armeniacus</u>	10%	Yes	FAC	FAC species _____ x 3 = _____	
2. _____	_____	_____	_____	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
10% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Ranunculus repens</u>	30%	Yes	FAC		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Equisetum telmateia</u>	5%	No	FACW		X 2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
35% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>	0%	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>65%</u>					

Remarks:
 Leaf litter covers the entire plot.

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-4	10YR 2/1	100					L	
4-16	10Y 4/1	90	10YR 5/6	10	C	M	LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>4"</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/24/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 52A-2
 Investigator(s): Matthew Murphy and Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429735 Long: -122.304185 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located upslope of Wetland 52A, near culvert for Des Moines Creek south of parking area.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	<u>Alnus rubra</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		Total % Cover of: <u> </u> Multiply by: <u> </u>
75% = Total Cover					OBL species <u> </u> x 1 = <u> </u>	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					FACW species <u> </u> x 2 = <u> </u>	
1.	<u>Rubus armeniacus</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u> </u> x 3 = <u> </u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u> </u> x 4 = <u> </u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index = B/A = <u> </u>	
100% = Total Cover					Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)						1 - Rapid Test for Hydrophytic Vegetation
1.	<u>Polystichum munitum</u>	<u>1%</u>	<u>Yes</u>	<u>FACU</u>		X 2 - Dominance Test is >50%
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		3 - Prevalence Index is ≤3.0 ¹
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		5 - Wetland Non-Vascular Plants ¹
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		Problematic Hydrophytic Vegetation (Explain) ¹
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		¹ Indicators of hydric soil and wetland hydrology must be present.
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
1% = Total Cover					Woody Vine Stratum (Plot size: <u>r=2m</u>)	
1.	<u>None</u>	<u> </u>	<u> </u>	<u> </u>		
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
0% = Total Cover						
% Bare Ground in Herb Stratum <u>99%</u>						

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR 4/3	100					L	
11-16	2.5Y 5/2	92	2.5Y 4/4	5	C	M	LS	
			10YR 4/6	3	C	M	LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Likely fill material above culvert.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 52A-3
 Investigator(s): Matthew Murphy and Aaron Thom Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.431926 Long: -122.302608 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is upslope of Wetland 52A, paired upland pit to SP WL 52A-4.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Alnus rubra</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>90%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Ilex aquifolium</u>	<u>15%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Rubus ursinus</u>	<u>15%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Arbutus menziesii</u>	<u>5%</u>	<u>No</u>	<u>NOL</u>	
5. _____	_____	_____	_____	
<u>115%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u>Solanum dulcamara</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Chamaenerion angustifolium</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Cirsium vulgare</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>22%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>78%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-5	10YR 2/1	100				L	
5-10	10YR 3/2	100				L	
10-16	10YR 6/1	70	10YR 4/6	10		SL	
			2.5Y 5/3	20			

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 SP WL 52A-3 is 2 vertical feet above SP-52A-4.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: 52A-4
 Investigator(s): Matthew Murphy and Aaron Thom Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.431950 Long: -122.302690 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
			Yes <u>X</u> No _____

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located within 52A along Des Moines Creek.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>None</u>				
2.					
3.					
4.					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1.	<u>Rubus spectabilis</u>	45%	Yes	FAC	
2.	<u>Rubus armeniacus</u>	10%	No	FAC	
3.	<u>Salix lucida ssp. Lasiandra</u>	5%	No	FACW	
4.					
5.					
		60% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Equisetum telmateia</u>	98%	Yes	FACW	
2.	<u>Athyrium cyclosorum</u>	1%	No	FAC	
3.	<u>Polystichum munitum</u>	1%	No	FACU	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	<u>None</u>				
2.					
		0% = Total Cover			
% Bare Ground in Herb Stratum		0%			

Remarks:
 Alder overhanging SP but rooted outside of the plot.

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR 4/3	100					SL	
11-20	N 5/1	70	10YR 5/6	30	C	M	Cb L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:
Likely fill material above culvert.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Water Table Present? Yes <u>X</u> No <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> (includes capillary fringe)	Depth (inches): <u> </u> Depth (inches): <u>18", rising</u> Depth (inches): <u>9"</u>
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 52B-1
 Investigator(s): Kaylee Moser, Kathryn Seckel, Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429296 Long: -122.304634 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP near northern boundary of Wetland 52B, located above the OHWM for Des Moines Creek.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Phalaris arundinacea</u>		70%	Yes	FACW	
2. <u>Ranunculus repens</u>		5%	No	FAC	
3. <u>Rubus armeniacus</u>		3%	No	FAC	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
		78% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u> </u>					
2. <u> </u>					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>22%</u>			

Remarks:



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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL 52B-2
 Investigator(s): Kaylee Moser, Kathryn Seckel, Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429264 Long: -122.304621 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL 52B-2 is located upslope of Wetland 52B.

VEGETATION

Tree Stratum	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	<u>Alnus rubra</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
100% = Total Cover					OBL species <u> </u> x 1 = <u> </u>
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					FACW species <u> </u> x 2 = <u> </u>
1.	<u>Alnus rubra</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u> </u> x 3 = <u> </u>
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u> </u> x 4 = <u> </u>
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index = B/A = <u> </u>
5% = Total Cover					Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>r=1m</u>)					<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
1.	<u>Phalaris arundinacea</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>	<u>X</u> 2 - Dominance Test is >50%
2.	<u>Ilex aquifolium</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	<u> </u> 3 - Prevalence Index is ≤3.0 ¹
3.	<u>Hypochaeris radicata</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5 - Wetland Non-Vascular Plants ¹
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain) ¹
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present.
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
11.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1.	<u>None</u>	<u> </u>	<u> </u>	<u> </u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0% = Total Cover					
% Bare Ground in Herb Stratum <u>50%</u>					

Remarks:



ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Project No.: 553-2912-002

US Army Corps of Engineers

Western Mountains, Valleys, and Coast Region (Version 2.0)

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL A-1
 Investigator(s): Kathryn Seckel and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.471583 Long: -122.310787 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located on the toe of slope next to an old road. SP A-1 is the wetland SP for Wetland A. Wetland A is a small linear depressional wetland that follows alongside an old road.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	<u>None</u>					Number of Dominant Species
2.					That Are OBL, FACW, or FAC: <u>2</u> (A)	
3.					Total Number of Dominant	
4.					Species Across All Strata: <u>2</u> (B)	
		<u>0%</u>	= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)						
1.	<u>Rubus armeniacus</u>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
2.					Prevalence Index worksheet:	
3.						Total % Cover of: _____ Multiply by: _____
4.					OBL species _____ x 1 = _____	
5.					FACW species _____ x 2 = _____	
		<u>15%</u>	= Total Cover		FAC species _____ x 3 = _____	
Herb Stratum (Plot size: <u>r=1m</u>)						
1.	<u>Holcus lanatus</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	FACU species _____ x 4 = _____	
2.	<u>Juncus effusus</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>	UPL species _____ x 5 = _____	
3.					Column Totals: _____ (A) _____ (B)	
4.					Prevalence Index = B/A = _____	
5.					Hydrophytic Vegetation Indicators:	
6.						1 - Rapid Test for Hydrophytic Vegetation
7.						<u>X</u> 2 - Dominance Test is >50%
8.						3 - Prevalence Index is ≤3.0 ¹
9.						4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10.						5 - Wetland Non-Vascular Plants ¹
11.						Problematic Hydrophytic Vegetation (Explain) ¹
		<u>95%</u>	= Total Cover			¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1.	<u>None</u>					Hydrophytic Vegetation Present?
2.						
		<u>0%</u>	= Total Cover			
% Bare Ground in Herb Stratum		<u>5%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-4	10YR 3/2	100					Gr SL	
4-13	10YR 3/2	92	7.5Y 4/6	5	C	M	SL	
			7.5Y3/4	3	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>Compact</u> Depth (inches): <u>13</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Compacted layer present at 13 inches - assumed to be old fill.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>7"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/13/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL A-2
 Investigator(s): Kathryn Seckel and Matthew Murphy Section, Township, Range: S21 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.471629 Long: -122.310772 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL A-2 is located on upland hillslope dominated by reed canarygrass and other forbes and grasses.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1.	<u>None</u>				
2.					
3.					
4.					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5 - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rubus armeniacus</u>	10%	Yes	FAC	
2.					
3.					
4.					
5.					
		10% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1.	<u>Lactuca serriola</u>	40%	Yes	FACU	
2.	<u>Hypericum perforatum</u>	10%	No	FACU	
3.	<u>Geum macrophyllum</u>	5%	No	FAC	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		55% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>none</u>				
2.					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>45%</u>			

Remarks:

SOIL **Sampling Point: WL A-2**

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-5	10YR 3/2	100				Gr L	
5-16	10YR 3/3	100				Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:
Gravelly

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/04/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL A14b-1
 Investigator(s): Josh Wozniak and Matt Murphy Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452608 Long: -122.323456 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): od-Everett-Urban land complex, 35 to 60 percer - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP along edge of roadfill prism. Upland pair to SP-A14b-2.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>1x3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Alnus rubra</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
5. _____	_____	_____	_____	
60% = Total Cover				OBL species _____ x 1 = _____
Sapling/Shrub Stratum (Plot size: <u>1x2m</u>)				FACW species _____ x 2 = _____
1. <u>Rubus armeniacus</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____
2. _____	_____	_____	_____	FACU species _____ x 4 = _____
3. _____	_____	_____	_____	UPL species _____ x 5 = _____
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
5. _____	_____	_____	_____	Prevalence Index = B/A = _____
80% = Total Cover				Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>1x1m</u>)				
1. <u>Equisetum telmateia</u>	<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
60% = Total Cover				1 Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum (Plot size: <u>1x2m</u>)				
1. <u>None</u>	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>40%</u>				

Remarks:
 Rectangular vegetation plots parallel to road and ditch.

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-2	10YR 2/2	100				Gr L	
2-10	10YR 3/2	100				Gr L	
10-14+	10YR 4/2	100				Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):
 Type: None
 Depth (inches): N/A

Hydric Soil Present? Yes No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes No X

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/04/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL A14b-2
 Investigator(s): Matthew Murphy Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452610 Long: -122.323384 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): od-Everett-Urban land complex, 35 to 60 percer - 3060 - None NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located on the east side of FAA Seattle Tracon access road. To access this road drive east out of 168th street until reaching unmarked access road. SP is located 100 feet from access road entrance and 20 feet east from the road.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
80% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	FACW species _____ x 2 = _____	
1. <u>Rubus armeniacus</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2. _____	_____	_____	_____	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
100% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		1 - Rapid Test for Hydrophytic Vegetation
1. <u>Scirpus microcarpus</u>	<u>50%</u>	<u>Yes</u>	<u>OBL</u>		X 2 - Dominance Test is >50%
2. <u>Equisetum telmateia</u>	<u>50%</u>	<u>Yes</u>	<u>FACW</u>		3 - Prevalence Index is ≤3.0 ¹
3. <u>Athyrium cyclosorum</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
110% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>	<u>0%</u>	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks:

SOIL							Sampling Point:	WL A14b-2
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	2.5Y 2.5/1	100					L	
9-11	2.5Y 3/1	95	10YR 3/2	5	C	M	L	
11-13	10YR 4/1	95	7.5YR 4/6	5	C	M	L	
13-16	10YR 4/1	97	7.5YR 4/6	3	C	M	LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>11"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/31/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL A19b-1
 Investigator(s): Kathryn Seckle and Kaylee Moser Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.451886 Long: -122.324091 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): an land-Alderwood complex, 12 to 35 percent slo - 3057 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
			Yes _____ No <u>X</u>

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL A19b-1 is located upslope of previously unmapped Wetland (Wetland A19b).

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u>Rubus armeniacus</u>		15%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		15% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Schedonorus arundinaceus</u>		40%	Yes	FAC	
2. <u>Phalaris arundinacea</u>		30%	Yes	FACW	
3. <u>Tanacetum vulgare</u>		15%	No	FACU	
4. <u>Vicia sativa</u>		10%	No	UPL	
5. <u>Geranium molle</u>		5%	No	NOL	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>None</u>					
2. _____					
		0% = Total Cover			
% Bare Ground in Herb Stratum		0%			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-10	10YR 3/2	97	10YR 4/2	2	D	M	SL	small depletion pocket
10-11	2.5Y3/2	95	10YR 3/4	5	C	M	S	thin redox layer
11-16	2.5Y 3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

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

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

Remarks:
 No hydrology to excavated depth of 16 inches. SP WL A19b-1 is over 1.5 vertical foot higher than SP WL A19b-2(WET).

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL A19b-2
 Investigator(s): Kathryn Seckle and Kaylee Moser Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.451937 Long: -122.324089 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): an land-Alderwood complex, 12 to 35 percent slo - 3057 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL A19b-2 is located on eastern edge of wetland A19b.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u>Rubus armeniacus</u>		20%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		20% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Agrostis capillaris</u>		80%	Yes	FAC	
2. <u>Holcus lanatus</u>		10%	No	FAC	
3. <u>Poa pratensis</u>		5%	No	FAC	
4. <u>Festuca rubra</u>		5%	No	FAC	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>None</u>					
2. _____					
		0% = Total Cover			
% Bare Ground in Herb Stratum		0%			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-7	10YR 4/1	95	10YR 4/4	5	C	M	SL	
7-16	10YR 4/1	95	10YR 4/4	5	C	M	Gr LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u> </u> Depth (inches): <u>9"</u> Depth (inches): <u>7"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOIL							Sampling Point:	WL A20-1
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	10YR 3/2	97	10YR 4/2	3	D	M	SL	small depletion pocket
10-11	2.5Y3/2	95	10YR 3/4	5	C	M	S	thin redox layer
11-16	2.5Y 3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):			Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 No hydrology to excavated depth of 16 inches. SP WL A20-1 is over 1.5 vertical foot higher than SP WL A20-2(WET).

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL A20-2
 Investigator(s): Kathryn Seckel and Kaylee Moser Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.451937 Long: -122.324089 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): an land-Alderwood complex, 12 to 35 percent slc - 3057 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
			Yes <u>X</u> No _____

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL A20-2 is located on eastern edge of wetland A20.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	<u>None</u>					Number of Dominant Species
2.					That Are OBL, FACW, or FAC: <u>2</u> (A)	
3.					Total Number of Dominant	
4.					Species Across All Strata: <u>2</u> (B)	
		<u>0%</u>	= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)						
1.	<u>Rubus armeniacus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
2.					Prevalence Index worksheet:	
3.						Total % Cover of: _____ Multiply by: _____
4.					OBL species _____ x 1 = _____	
5.					FACW species _____ x 2 = _____	
		<u>20%</u>	= Total Cover		FAC species _____ x 3 = _____	
Herb Stratum (Plot size: <u>r=1m</u>)						
1.	<u>Agrostis capillaris</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	FACU species _____ x 4 = _____	
2.	<u>Holcus lanatus</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	UPL species _____ x 5 = _____	
3.	<u>Poa pratensis</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	Column Totals: _____ (A) _____ (B)	
4.	<u>Festuca rubra</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
5.					Hydrophytic Vegetation Indicators:	
6.						1 - Rapid Test for Hydrophytic Vegetation
7.						<u>X</u> 2 - Dominance Test is >50%
8.						3 - Prevalence Index is ≤3.0 ¹
9.						4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10.						5 - Wetland Non-Vascular Plants ¹
11.						Problematic Hydrophytic Vegetation (Explain) ¹
		<u>100%</u>	= Total Cover			¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1.	<u>None</u>					Hydrophytic Vegetation Present?
2.						
		<u>0%</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0%</u>						

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 4/1	95	10YR 4/4	5	C	M	SL	
7-16	10YR 4/1	95	10YR 4/4	5	C	M	Gr LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>9"</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>7"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL C-1
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: S4 T22N R4E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.426239 Long: -122.307588 Datum: WGS 84
 Soil Unit (Name-ID-Hydric Rating): Urban Land - UR - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL C-1 is upslope of the western boundary of Wetland C.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Agrostis capitatus</u>		80%	Yes	FAC	
2. <u>Plantago lanceolata</u>		10%	No	FACU	
3. <u>Lactuca serriola</u>		5%	No	FACU	
4. <u>Cirsium arvense</u>		5%	No	FAC	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. _____					
2. _____					
		0% = Total Cover			
% Bare Ground in Herb Stratum		0%			

Remarks:



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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR 4/2	100					SL	
11-15	multiple	100					Coarse S	w/ fibric material

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u> X </u>
--	--

Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL C-2
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: S4 T22N RE4
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.426241 Long: -122.307487 Datum: WGS 84
 Soil Unit (Name-ID-Hydric Rating): Urban Land - UR - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
			Yes <u>X</u> No _____

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL C-2 is located within Wetland C along the western boundary.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u>Rubus armeniacus</u>		5%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		5% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Agrostis capillaris</u>		90%	Yes	FAC	
2. <u>Plantago lanceolata</u>		5%	No	FACU	
3. <u>Lactuca serriola</u>		5%	No	FACU	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes _____ No _____
1. _____					
2. _____					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:

SOIL							Sampling Point:	WL C-2
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/2	100					L	
6-14	10YR 4/2	60	10YR 3/2	30	C	M	L	
			10YR 4/4	15	C	M		
			7.5YR 3/4	5	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

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

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 SP WL C-2 is within a depression on the landscape and is assumed to have 14 of more consecutive days of ponding or flooding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (following the Corps definition of wetland hydrology). Need to do a follow-up hydrology check.

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL D-1
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: S4 T22N R4E
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.425982 Long: -122.307211 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Urban Soils - UR - not hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL D-1 is located within a depression (Wetland E8) which is separated from Wetland C by an upland berm feature. The paired upland pit, SP WL C-1, is located along this upland feature.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		1%	No	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		1% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Poa pratensis</u>		60%	Yes	FAC	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Equisetum telmateia</u>		30%	Yes	FACW	
3. <u>Plantago lanceolata</u>		10%	No	FACU	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>none</u>					Hydrophytic Vegetation Present? Yes _____ No _____
2. _____					
		0% = Total Cover			
% Bare Ground in Herb Stratum		0%			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-3	10YR 4/2	95	10YR 3/4	5	C	M	L	
3-16	10YR 5/1	80	10YR 4/4	10	C	M,PL	L	
			7.5YR 4/6	10	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____</p>
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Remarks:

HYDROLOGY

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

<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____</p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Wetland hydrology assumed based on presence of oxidized rhizospheres at 3 to 16 inches.

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Local relief (concave, convex, none): _____ Slope (%): _____
 Landform (hillslope, terrace, etc.): 0 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>100%</u>			

Remarks:

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ - _____ - _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes _____ No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ - _____ - _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	_____				
2.	_____				
3.	_____				
4.	_____				
5.	_____				
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	_____				
2.	_____				
3.	_____				
4.	_____				
5.	_____				
6.	_____				
7.	_____				
8.	_____				
9.	_____				
10.	_____				
11.	_____				
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes _____ No _____
1.	_____				
2.	_____				
		0% = Total Cover			
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ - _____ - _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes _____ No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ - _____ - _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
9. _____	_____	_____	_____	_____	
10. _____	_____	_____	_____	_____	
11. _____	_____	_____	_____	_____	
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:

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

Project/Site: SAMP City/County: Seatac Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ - _____ - _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes _____ No _____
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
9. _____	_____	_____	_____	_____	
10. _____	_____	_____	_____	_____	
11. _____	_____	_____	_____	_____	
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Sampling Point: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ - _____ - _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	_____	_____	_____	_____	Number of Dominant Species _____
2.	_____	_____	_____	_____	That Are OBL, FACW, or FAC: _____ 0 (A)
3.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 0 (B)
4.	_____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
0% = Total Cover					Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					Total % Cover of: _____ Multiply by: _____
1.	_____	_____	_____	_____	OBL species _____ x 1 = _____
2.	_____	_____	_____	_____	FACW species _____ x 2 = _____
3.	_____	_____	_____	_____	FAC species _____ x 3 = _____
4.	_____	_____	_____	_____	FACU species _____ x 4 = _____
5.	_____	_____	_____	_____	UPL species _____ x 5 = _____
0% = Total Cover					Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>r=1m</u>)					Prevalence Index = B/A = _____
1.	_____	_____	_____	_____	Hydrophytic Vegetation Indicators:
2.	_____	_____	_____	_____	1 - Rapid Test for Hydrophytic Vegetation
3.	_____	_____	_____	_____	### 2 - Dominance Test is >50%
4.	_____	_____	_____	_____	3 - Prevalence Index is ≤3.0 ¹
5.	_____	_____	_____	_____	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6.	_____	_____	_____	_____	5 - Wetland Non-Vascular Plants ¹
7.	_____	_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) ¹
8.	_____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
0% = Total Cover					Hydrophytic Vegetation Present? Yes _____ No _____
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
0% = Total Cover					
% Bare Ground in Herb Stratum <u>100%</u>					

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL D-1
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: S4 T22N R4E
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.425982 Long: -122.307211 Datum: WGS-84
 Soil Unit (Name-ID-Hydric Rating): Urban Soils - UR - not hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL D-1 is located northwest of Wetland D within a grassy depression feature.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>none</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)		<u>0%</u> = Total Cover			
1. <u>Rubus armeniacus</u>		<u>1%</u>	<u>No</u>	<u>FAC</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
Herb Stratum (Plot size: <u>r=1m</u>)		<u>1%</u> = Total Cover			
1. <u>Poa pratensis</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Equisetum telmateia</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Plantago lanceolata</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
Woody Vine Stratum (Plot size: <u>r=2m</u>)		<u>100%</u> = Total Cover			
1. <u>none</u>					
2. <u> </u>					
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc2		
0-3	10YR 4/2	95	10YR 3/4	5	C	M	L	
3-16	10YR 5/1	80	10YR 4/4	10	C	M,PL	L	
			7.5YR 4/6	10	C	M		

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):			Indicators for Problematic Hydric Soils3:		
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)				
	<input type="checkbox"/> Redox Depressions (F8)				

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

Restrictive Layer (if present): Type: <u>none</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
---	---

Remarks:

HYDROLOGY

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

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

Remarks:
 Parametrix conducted a hydrology investigation in March 2020 and found no presence of a groundwater table or saturation to an excavated depth of 21 inches.

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL D-2
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: S4 T22N RE4
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.426241 Long: -122.307487 Datum: WGS 84
 Soil Unit (Name-ID-Hydric Rating): Urban Land - UR - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL D-2 is located northwest of Wetland D.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>none</u>				
2.					
3.					
4.					
		<u>0%</u>	= Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rubus armeniacus</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
2.					
3.					
4.					
5.					
		<u>5%</u>	= Total Cover		
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1.	<u>Agrostis capillaris</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Plantago lanceolata</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Lactuca serriola</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		<u>100%</u>	= Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>none</u>				
2.					
		<u>0%</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0%</u>					Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u>

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					L	
6-14	10YR 4/2	60	10YR 3/2	30	C	M	L	
			10YR 4/4	15	C	M		
			7.5YR 3/4	5	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>none</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 Parametrix conducted a hydrology investigation in March 2020 and found no presence of a groundwater table or saturation to an excavated depth of 24 inches.

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Sampling Point: _____
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes _____ No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>100%</u>			

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				Hydrophytic Vegetation Present? Yes _____ No _____
Herb Stratum (Plot size: <u>r=1m</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
0% = Total Cover				
Woody Vine Stratum (Plot size: <u>r=2m</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>100%</u>				

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
0% = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>100%</u>				
Hydrophytic Vegetation Present? Yes _____ No _____				

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
0% = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>100%</u>				

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
0% = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>100%</u>				
Hydrophytic Vegetation Present? Yes _____ No _____				

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				Hydrophytic Vegetation Present? Yes _____ No _____
Herb Stratum (Plot size: <u>r=1m</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
0% = Total Cover				
Woody Vine Stratum (Plot size: <u>r=2m</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum	<u>100%</u>			

Remarks:

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

Project/Site: SAMP City/County: Seatac State: WA Sampling Date: 12/8/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: _____
 Investigator(s): Josh Wozniak, Kaylee Moser Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: _____ Long: _____ Datum: _____
 Soil Unit (Name-ID-Hydric Rating): _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Precipitation:
 According to the Seattle-Tacoma International Airport NOAA weather station, Precipitation was within the normal range for the three months prior to the site visit.

Remarks:

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ### 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
0% = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>100%</u>				

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/09/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL DC-1
 Investigator(s): Josh Wozniak and Kaylee Moser Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.432830 Long: -122.300079 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 Fresh alluvium over quarry spill stream bed armoring along Des Moines Creek.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
1.	<u>None</u>				
2.					
3.					
4.					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Populus balsamifera</u>	30%	Yes	FAC	
2.	<u>Rubus armeniacus</u>	15%	Yes	FAC	
3.					
4.					
5.					
		45% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	<u>Phalaris arundinacea</u>	5%	Yes	FACW	
2.	<u>Equisetum telmateia</u>	5%	Yes	FACW	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		10% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=1m</u>)				
1.	<u>Hedera helix</u>	60%	Yes	FACU	
2.					
		60% = Total Cover			
% Bare Ground in Herb Stratum		<u>30%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-4	MULTIPLE	100				V Gr S	
4-16	MULTIPLE	100				Quarry Spall	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:
 Fresh alluvium with aquic moisture regime.

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/09/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL DC-2
 Investigator(s): Josh Wozniak, Kaylee Moser, Aaron Thom Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.432850 Long: -122.300066 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP upslope of SP-DC-1/Des Moines Creek.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1.	<u>None</u>				
2.					
3.					
4.					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rubus armeniacus</u>	15%	Yes	FAC	
2.					Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
3.					
4.					
5.					
		15% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1.	<u>None</u>				
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		0% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=1m</u>)				
1.	<u>Hedera helix</u>	100%	Yes	FACU	
2.					
		100% = Total Cover			
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-6	10YR 2/2	100				Gr L	
6-17	10YR 3/2	100				Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/09/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL DC-3
 Investigator(s): Josh Wozniak, Kaylee Moser, Aaron Thom Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.432869 Long: -122.301365 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is located within Wetland DC (below OHWM of Des Moines Creek).

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
60% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	FACW species _____ x 2 = _____	
1. <u>Rubus armeniacus</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2. <u>Buddleja davidii</u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
45% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		1 - Rapid Test for Hydrophytic Vegetation
1. <u>Phalaris arundinacea</u>	<u>70%</u>	<u>Yes</u>	<u>FACW</u>		X 2 - Dominance Test is >50%
2. <u>Iris pseudacorus</u>	<u>10%</u>	<u>No</u>	<u>OBL</u>		3 - Prevalence Index is ≤3.0 ¹
3. <u>Solanum dulcamara</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
85% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>	<u>0%</u>	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>15%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-11	10YR 2/1	100				SL	
11+						Quarry spalls/roots	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>quarry spall</u> Depth (inches): <u>11 inches</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
 Dense quarry spalls and tree roots present at 11 inches. Hydric soils assumed. Well below the ordinary high water mark. Aquic moisture regime and fluvial entisols assumed.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>13"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/09/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL DC-4
 Investigator(s): Josh Wozniak, Kaylee Moser, Aaron Thom Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.432902 Long: -122.301369 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is located upslope of Wetland DC/Des Moines Creek.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	<u>45%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:	
45% = Total Cover					Total % Cover of: <u> </u> Multiply by: <u> </u>
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species <u> </u> x 1 = <u> </u>	
1. <u>Populus balsamifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	FACW species <u> </u> x 2 = <u> </u>	
2. <u>Rubus armeniacus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u> </u> x 3 = <u> </u>	
3. <u>Ilex aquifolium</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	FACU species <u> </u> x 4 = <u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)	
45% = Total Cover				Prevalence Index = B/A = <u> </u>	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>None</u>	<u> </u>	<u> </u>	<u> </u>		1 - Rapid Test for Hydrophytic Vegetation <u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		X 2 - Dominance Test is >50% <u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>		3 - Prevalence Index is ≤3.0 ¹ <u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>		5 - Wetland Non-Vascular Plants ¹ <u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>		Problematic Hydrophytic Vegetation (Explain) ¹ <u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>		¹ Indicators of hydric soil and wetland hydrology must be present.
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
0% = Total Cover					
Woody Vine Stratum (Plot size: <u>10'</u>)					
1. <u>Hedera helix</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>		
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
5% = Total Cover					
% Bare Ground in Herb Stratum <u>100%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-3	10YR 2/2	100				SL	
3-15	2.5Y 4/3	100				SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL DC-5
 Investigator(s): Matthew Murphy and Aaron Thom Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.432813 Long: -122.302189 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located within Wetland DC (below OHWM for Des Moines Creek).

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Salix lucida ssp. Lasianдра</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
40% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	FACW species _____ x 2 = _____	
1. <u>Sambucus racemosa</u>	<u>50%</u>	<u>Yes</u>	<u>FACU</u>	FAC species _____ x 3 = _____	
2. <u>Rubus spectabilis</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FACU species _____ x 4 = _____	
3. <u>Rosa pisocarpa</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
60% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status		1 - Rapid Test for Hydrophytic Vegetation
1. <u>Ranunculus repens</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		X 2 - Dominance Test is >50%
2. <u>Equisetum telmateia</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>		3 - Prevalence Index is ≤3.0 ¹
3. <u>Impatiens capensis</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Chamaenerion angustifolium</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
65% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>	<u>0%</u>	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>35%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-10	10YR 2/2	100					L	
10-13	2.5Y 4/2	98	7.5YR 4/6	2	C	M	LS	
13-15	10YR 2/2	98	7.5YR 4/6	2	C	M	L	
15-19	10YR 6/1	60	10YR 2/2	35	C	M	L	
			10YR 4/6	5	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
 SP located below ordinary high water mark, approximately 2 meters away from stream. Depleted layer below the dark surface is fragmented into two separate layers.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 SP is well below OHWL.

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-5	10YR 2/2	100					L	
5-16	10YR 3/3	100					L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL DMC2-1
 Investigator(s): Matthew Murphy and Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429853 Long: -122.304789 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the SeaTac Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located in the southeast corner near the driving range netting, near OH flag 107B.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>None</u>				
2.					
3.					
4.					
		<u>0%</u>	= Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rubus armeniacus</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2.					
3.					
4.					
5.					
		<u>10%</u>	= Total Cover		
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1.	<u>Phalaris arundinacea</u>	<u>68%</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Caradmine species</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3.	<u>Solanum dulcamara</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
4.	<u>Epilobium ciliatum</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>	
5.	<u>Chamaenerion angustifolium</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	
6.					
7.					
8.					
9.					
10.					
11.					
		<u>110%</u>	= Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>None</u>				
2.					
		<u>0%</u>	= Total Cover		
% Bare Ground in Herb Stratum		<u>0%</u>			

Remarks:
 Caradmine species assumed to be FAC.

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-8	10YR 2/1	100					L	
8-11	2.5Y 4/1	90	5YR 4/6	10	C	M	SL	Organic material present
11-13	2.5Y 2.5/1	100					L	
13-19	10Y 4/1	95	10YR 4/6	5	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:
 Soil profile is fragmented but combined layers meet the criteria for A11.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>16"</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>6"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 11/15/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL DMC2-2
 Investigator(s): Kaylee Moser Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429894 Long: -122.304808 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-DMC2-2 is upslope of Wetland DMC2 and SP-DMC2-1.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=1m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>None</u>				
2.					
3.					
4.					
		<u>0%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u> </u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> <u>5</u> - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rubus armeniacus</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2.					
3.					
4.					
5.					
		<u>50%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1.	<u>Phalaris arundinacea</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		<u>80%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=1m</u>)				
1.	<u>None</u>				
2.					
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum		<u>20%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-11	10YR 3/2	100					L	
11-15	2.5Y 5/2	80	10YR 4/4	20	C	M	SiL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 SP is 3 vertical feet above wetland SP along steeper 20% grade. No hydrology present.

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

Project/Site: SAMP City/County: Seatac/King State: WA Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL E1-1
 Investigator(s): K. Moser, K. Seckel Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.433558 Long: -122.301332 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP E1-1 is located along the southern boundary of Wetland E1.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Salix scouleriana</u>	80%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u>Populus balsamifera</u>	40%	Yes	FAC	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
_____	120% = Total Cover	_____	_____		Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____	
1. <u>Rubus armeniacus</u>	10%	Yes	FAC	FACW species _____	
2. <u>Spiraea douglasii</u>	2%	No	FACW	FAC species _____	
3. _____	_____	_____	_____	FACU species _____	
4. _____	_____	_____	_____	UPL species _____	
5. _____	_____	_____	_____	Column Totals: _____ (B)	
_____	12% = Total Cover	_____	_____	Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)					1 - Rapid Test for Hydrophytic Vegetation
1. <u>Juncus effusus</u>	30%	Yes	FACW		X 2 - Dominance Test is >50%
2. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____	30% = Total Cover	_____	_____		
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
_____	0% = Total Cover	_____	_____		
% Bare Ground in Herb Stratum <u>70%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-6	10YR 2/2	100					SL	
6-17	10YR 2/2	90	2.5YR 3/4	1	C	M	SL	
			7.5YR 5/6	9	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

<p>Restrictive Layer (if present):</p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p>Hydric Soil Present? Yes <u>X</u> No <u> </u></p>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SAMP City/County: Seatac/King State: WA Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL E1-2
 Investigator(s): K. Moser, K. Seckel Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.433533 Long: -122.301313 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-E1-2 is located upland along the southern boundary of Wetland E1.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
40% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____	
1. <u>Arbutus menziesii</u>	<u>40%</u>	<u>Yes</u>	<u>NOL</u>	FACW species _____	
2. <u>Rubus armeniacus</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FAC species _____	
3. _____	_____	_____	_____	FACU species _____	
4. _____	_____	_____	_____	UPL species _____	
5. _____	_____	_____	_____	Column Totals: _____	
45% = Total Cover				Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)					1 - Rapid Test for Hydrophytic Vegetation _____
1. <u>Juncus effusus</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>		2 - Dominance Test is >50% _____
2. <u>Hypericum perforatum</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>		3 - Prevalence Index is ≤3.0 ¹ _____
3. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹ _____
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹ _____
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
6% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>94%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-5	10YR 3/2	100					L	
5-6	2.5Y 4/3	97	10YR 4/6	3	C	M	L	Large Gr
6-8	2.5Y 5/2	90	10YR 5/6	10	C	M	SL	Large Gr
8-12	2.5Y 4/3	95	2.5Y 5/6	5	C	M	SL	Small Cb

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
 Appears to be fill material with mixed soils.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SAMP City/County: Seatac/King State: WA Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL E1-3
 Investigator(s): Kaylee Moser, Kathryn Seckel Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.433668 Long: -122.301093 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP E1-3 is located upland of the northeastern boundary of Wetland E1.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pseudotsuga menziesii</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
40% = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____
1. <u>Salix scouleriana</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>	FACW species _____
2. <u>Spiraea douglasii</u>	<u>25%</u>	<u>Yes</u>	<u>FACW</u>	FAC species _____
3. <u>Rubus ursinus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	FACU species _____
4. _____	_____	_____	_____	UPL species _____
5. _____	_____	_____	_____	Column Totals: _____
70% = Total Cover				
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	1 - Rapid Test for Hydrophytic Vegetation _____
2. _____	_____	_____	_____	2 - Dominance Test is >50% _____
3. _____	_____	_____	_____	3 - Prevalence Index is ≤3.0 ¹ _____
4. _____	_____	_____	_____	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____
5. _____	_____	_____	_____	5 - Wetland Non-Vascular Plants ¹ _____
6. _____	_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) ¹ _____
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
0% = Total Cover				
Woody Vine Stratum (Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present?
1. <u>None</u>	_____	_____	_____	Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>100%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-9	2.5Y 3/2	100					L	
9-12	2.5Y 4/3	60	7.5YR 5/6	40	C	M	L	
12-16	10YR 6/2	70	10YR 5/8	30	C	M	SiL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
 Relict redox concentrations with sharp boundaries.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 SP located along stormwater drainage flow path into wetland.

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

Project/Site: SAMP City/County: Seatac/King State: WA Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle Sampling Point: WL E1-4
 Investigator(s): Matt Murphy, Aaron Thom Section, Township, Range: S33 T23N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.433618 Long: -122.301131 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>		
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>		

Precipitation:
 According to the Seattle Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP E1-4 is located within Wetland E1, near the northeastern boundary.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. <u>Pseudotsuga menziesii</u>	<u>80%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Salix hookeriana</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>110%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Pseudotsuga menziesii</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Arbutus menziesii</u>	<u>5%</u>	<u>No</u>	<u>NOL</u>	
4. <u>Rubus ursinus</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	
<u>65%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>10%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	<u>0%</u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>80%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-4	10YR 3/2	100					L	
4-8	10YR 3/2	95	7.5YR 5/6	5	C	M	L	
8-13	10YR 4/2	70	7.5YR 4/6	30	C	M	L	Large Cb
13-17	10YR 5/1	70	7.5YR 5/6	30	C	M	L	gravelly

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SAMP City/County: Seatac/King State: WA Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: S33 T23N R04E Sampling Point: WL E1-5
 Investigator(s): Kaylee Moser, Kathryn Seckel Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.433672 Long: -122.301447 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP E1-5 is located within Wetland E1, near the western boundary.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	100%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
100% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	FACW species _____ x 2 = _____	
1. <u>Rubus ursinus</u>	5%	Yes	FACU	FAC species _____ x 3 = _____	
2. _____	_____	_____	_____	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
5% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		1 - Rapid Test for Hydrophytic Vegetation
1. <u>Agrostis capitatus</u>	90%	Yes	FAC		X 2 - Dominance Test is >50%
2. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
90% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>	0%	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>10%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-6	2.5Y 3/2	100					L	
6-12	2.5Y 3/1	90	7.5YR 4/6	10	C	M	SCL	
12-13+	10YR 4/2	70	7.5YR 4/6	30	C	M	SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 Assuming this SP to have 14 of more consecutive days of ponding or flooding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (following the Corps definition of wetland hydrology).

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

Project/Site: SAMP City/County: Seatac/King State: WA Sampling Date: 10/15/2019
 Applicant/Owner: Port of Seattle Section, Township, Range: S33 T23N R04E Sampling Point: WL E1-6
 Investigator(s): Katheryn Seckel, Matt Murphy, Aaron Thom Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.433934 Long: -122.301365 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land, 5 to 20 percent slopes - 989 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle Tacoma International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP- WL E1-6 is located within WL E1 near the northern boundary.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	10%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	10% = Total Cover	_____	_____		Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>Rubus armeniacus</u>	5%	Yes	FAC	FACW species _____ x 2 = _____	
2. <u>Buddleja davidii</u>	5%	Yes	FACU	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
	10% = Total Cover			Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>none</u>	_____	_____	_____		1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		<u>X</u> 2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	0% = Total Cover				
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
	0% = Total Cover				
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-3	10YR 2/1	100					L	
3-5	10YR 3/2	98	7.5YR 4/6	2	C	M	L	
5-11	2.5Y 4/2	60	5YR 4/6	40	C	M	L	
11-14	2.5Y 5/2	95	10YR 5/6	5	C	M	L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Assuming this SP to have 14 or more consecutive days of ponding or flooding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (following the Corps definition of wetland hydrology).

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-1
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): _____ Depression _____ Local relief (concave, convex, none): concave Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.430042 Long: -122.305509 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Precipitation:
 According to the SeaTac International Aiport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL G12-1 is located within Wetland G12.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Populus nigra</u>		<u>15%</u>	<u>Yes</u>	<u>NOL</u>	
2. _____					
3. _____					
4. _____					
15% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
1. <u>Agrostis capillaris</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Cirsium arvense</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
100% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>None</u>					
2. _____					
0% = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks:

SOIL						Sampling Point: WL G12-1	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-6	10YR 3/2	100					L
6-17	5Y 6/2	70	10YR 4/6	30	C	M	SL

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: <u>Rocky layer</u> Depth (inches): <u>15"</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10"</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-2
 Investigator(s): Kathryn Seckle and Kaylee Moser Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): _____ Field _____ Local relief (concave, convex, none): _____ none _____ Slope (%): _____ None _____
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429914 Long: -122.305200 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): _____ Urban Land _____ - Ur _____ - Not Hydric NWI classification: _____ None _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL G12-2 is located east of Wetland G12.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 _____ (A) Total Number of Dominant Species Across All Strata: _____ 2 _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100% _____ (A/B)
1. <u>None</u>	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
1. <u>None</u>	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>Agrostis capillaris</u>	_____	45%	Yes	FAC	
2. <u>Holcus lanatus</u>	_____	25%	Yes	FAC	
3. <u>Juncus effusus</u>	_____	15%	No	FACW	
4. <u>Plantago lanceolata</u>	_____	15%	No	FACU	
5. <u>Plantago major</u>	_____	3%	No	FAC	
6. <u>Trifolium repens</u>	_____	2%	No	FAC	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
9. _____	_____	_____	_____	_____	
10. _____	_____	_____	_____	_____	
11. _____	_____	_____	_____	_____	
105% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
0% = Total Cover					
% Bare Ground in Herb Stratum _____ 0% _____					

Remarks:

SOIL						Sampling Point:	WL G12-2	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture	Remarks
0-9	10YR 2/2	100					SCL	
9-13	7.5YR 5/2	65	10YR 6/8	25	C	M	SCL	
			2.5Y 6/6	5	C	M		
			5Y 7/2	5	C	M		
13-17+	2.5Y 7/1	80	2.5Y 6/8	20	C	M	SCL	Cobbles

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

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

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

Indicators for Problematic Hydric Soils3:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: None
 Depth (inches): N/A

Hydric Soil

Present? Yes No

Remarks:
 Combining depleted layers 9-13 and 13-17+ inches.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

Wetland

Hydrology Present? Yes No

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

Remarks:
 Parametrix conducted a hydrology investigation in March 2020 and found no presence of a groundwater table or saturation to an excavated depth of 24 inches.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-3
 Investigator(s): Kathryn Seckle and Kaylee Moser Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.430084 Long: -122.305121 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL G12-3 is upslope of the northern boundary of Wetland G12.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Agrostis capillaris</u>		<u>65%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Poa pratensis</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Holcus lanatus</u>		<u>15%</u>	<u>No</u>	<u>FAC</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
100% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
0% = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks:



SOIL						Sampling Point: WL G12-3	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-8	10YR 2/2	100					L
8-14	10YR 6/2	80	7.5YR 5/8	20	C	M	SL
14-15+	2.5Y 6/1	75	7.5YR 5/8	25	C	M	SL

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):	Hydric Soil Present?
Type: <u>None</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth (inches): <u>N/A</u>	

Remarks:

HYDROLOGY

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

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

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

Remarks:
Parametrix conducted a hydrology investigation in March 2020 and found no presence of a groundwater table or saturation to an excavated depth of 22 inches.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-4
 Investigator(s): Kaylee Moser and Kathryn Seckle Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.430105 Long: -122.305069 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac International Aiport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP along northern upland edge of Wetland G12.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
<u>0%</u> = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
<u>0%</u> = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Agrostis capillaris</u>		<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Plantago lanceolata</u>		<u>15%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Hypochaeris radicata</u>		<u>15%</u>	<u>No</u>	<u>FACU</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
<u>100%</u> = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
<u>0%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks:



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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-5
 Investigator(s): Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): _____ Hillslope _____ Local relief (concave, convex, none): convex Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.430146 Long: -122.305408 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): _____ Urban Land _____ - Ur _____ - Not Hydric NWI classification: _____ None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 G12-SP-5 upland pit is 1 vertical foot above wetland G12 along what appears to be fill sidecast pile from excavation of the nearby ditch. Site is heavily disturbed (former golf course).

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 _____ (A) Total Number of Dominant Species Across All Strata: _____ 3 _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Populus nigra</u>		10%	Yes	NOL	
2. _____					
3. _____					
4. _____					
5. _____					
10% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Schedonorus arundinaceus</u>		40%	Yes	FAC	
2. <u>Agrostis capillaris</u>		40%	Yes	FAC	
3. <u>Hypochaeris radicata</u>		10%	No	FACU	
4. <u>Vicia sativa</u>		5%	No	UPL	
5. <u>Geranium molle</u>		5%	No	NOL	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
100% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>none</u>					
2. _____					
0% = Total Cover					
% Bare Ground in Herb Stratum _____ 0% _____					

Remarks:



SOIL						Sampling Point:	WL G12-5
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-6	10YR 2/2	100					L
6-14	10YR 3/2	60	10YR 4/1	20	C	M	L
			5YR 3/4	20	C	M	L
14-16	10YR 4/1	70	5YR 3/4	30	C	M	L

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):	Hydric Soil Present?
Type: <u>None</u>	Yes <u>X</u> No <u> </u>
Depth (inches): <u>N/A</u>	

Remarks:
Mixed layers within pit. Appears to be along a fill pile from side cast material from ditch excavation.

HYDROLOGY

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

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u>	Yes <u> </u> No <u>X</u>
Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u>	
Saturation Present? (includes capillary fringe) Yes <u> </u> No <u>X</u> Depth (inches): <u> </u>	

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

Remarks:
SP-G12-5 is approximately 1.5 vertical foot above wetland G12. No hydrology to 17 inches.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-6
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.430092 Long: -122.305378 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u> </u>	

Precipitation:
 According to the SeaTac International Aiport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 G12-6 is within old road between 2 previously mapped wetlands. Wetland conditions observed.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
1. <u>Agrostis capillaris</u>		<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Holcus lanatus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Trifolium repens</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Anthoxanthum odoratum</u>		<u>3%</u>	<u>No</u>	<u>FACU</u>	
5. <u>Plantago lanceolata</u>		<u>2%</u>	<u>No</u>	<u>FACU</u>	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
100% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>0%</u>				

Remarks:



SOIL						Sampling Point: WL G12-6	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-4	10YR 3/2	100					SL
4-12	5Y 5/1	60	10YR 5/6	30	C	M	SL
			2.5Y 4/2	10	C	M	SL

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):	Hydric Soil Present?
Type: <u>None</u>	Yes <u>X</u> No <u> </u>
Depth (inches): <u>N/A</u>	

Remarks:
Old road compacted fill below 12 inches.

HYDROLOGY

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

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u>	Yes <u>X</u> No <u> </u>
Water Table Present? Yes <u>x</u> No <u> </u> Depth (inches): <u>12</u>	
Saturation Present? (includes capillary fringe) Yes <u>X</u> No <u> </u> Depth (inches): <u>0; surface</u>	

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

Remarks:
Old road acting as a restrictive layer.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-7
 Investigator(s): Kaylee Moser, Kathryn Seckle, Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Ditch along slope Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.430390 Long: -122.305382 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the SeaTac International Aiport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL G12-7 is located within the ditched portion of Wetland G12.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>
1. <u>Rubus armeniacus</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
100% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
0% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:



SOIL						Sampling Point: WL G12-7	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-7	10YR 3/2	100					L
7-19	10YR 5/2	70	10YR 5/6	30	C	M	L

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>x</u> No <u> </u> Depth (inches): <u>19</u> Saturation Present? (includes capillary fringe) Yes <u>x</u> No <u> </u> Depth (inches): <u>17</u>	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-8
 Investigator(s): Kaylee Moser, Kathryn Seckle, Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.430375 Long: -122.305369 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 WSP WL G12-8 is located upslope of the ditched portion of Wetland G12.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>Rubus armeniacus</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
100% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
0% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>100%</u>				

Remarks:



SOIL						Sampling Point: WL G12-8	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-7	2.5Y 3/2	100					L
7-9	2.5Y 5/2	80	10YR 3/3	10	C	M	L
			10YR 5/6	10	C	M	L
9-20	10YR 3/2	70	7.5Y 3/2	30	C	M	L

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Depleted layer not thick enough to meet hydric indicator.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/28/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-9
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429322 Long: -122.305694 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u> </u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL G12-9 is located in a low spot west of the gravel road. Hydrology check completed in March 2020, during the early growing season.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u> 2 </u> (A) Total Number of Dominant Species Across All Strata: <u> 2 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>none</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
<u>0%</u> = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>none</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
<u>0%</u> = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Agrostis capillaris</u>		<u>75%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Poa pratensis</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Anthoxanthum odoratum</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
<u>100%</u> = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>none</u>					
2. <u> </u>					
<u>0%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks:



SOIL						Sampling Point:	WL G12-9
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features			Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	
0-7	10YR 3/2	95	7.5YR 4/6	5	C	M	SL
7-16	2.5Y 5/2	70	7.5YR 4/6	30	C	M	Gr LS

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted): <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Thick Dark Surface (A12) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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Restrictive Layer (if present): Type: <u>none</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>11</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Parametrix conducted a hydrology investigation in March 2020 and documented a water table present at 1 inch and saturation at 8 inches.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 3/25/2020
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-10
 Investigator(s): Josh Wozniak and Kaylee Moser Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429167 Long: -122.305818 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - UR - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the SeaTac International Aiport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL G12-10 is located in wetland G12 on the eastern boundary of G12 along unnamed service road.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>ƒ=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u> 1 </u> (A) Total Number of Dominant Species Across All Strata: <u> 1 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
<u>0%</u> = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>ƒ=2m</u>)				
1. <u>Populus nigra</u>		<u>5%</u>	<u>Yes</u>	<u>NOL</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
<u>5%</u> = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>ƒ=1m</u>)				
1. <u>Poa pratensis</u>		<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Hypochaeris radicata</u>		<u>20%</u>	<u>No</u>	<u>FACU</u>	
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
<u>90%</u> = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>ƒ=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
<u>0%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>10%</u>					

Remarks:



SOIL						Sampling Point: WL G12-10		
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture	
0-5	10YR 2/2	100					L	With fibric content
5-13	2.5Y 5/1	60	10YR 4/4	30	C	M	SaL	With cobble
			10YR 3/3	10	C	M		
13-20	2.5Y 4/1	100					LSa	Coarse

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
---	--

Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>13</u> Saturation Present? (includes capillary fringe) Yes <u>X</u> No <u> </u> Depth (inches): <u>12</u>	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 3/25/2020
 Applicant/Owner: Port of Seattle State: WA Sampling Point: WL G12-11
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: #REF!
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): None Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429153 Long: -122.305734 Datum: NAD1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - UR - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL G12-11 is the paired upland plot to SP WL G12-10. SP WL G12-11 is located approximately 5 feet west of the access road. Although the plot meets for vegetation and soils, there was no saturation or groundwater table observed to the excavated depth of 20 inches, despite early growing conditions which are wetter than normal according to the WETS tables.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				
1. <u>Poa pratensis</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Hypochaeris radicata</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Plantago lanceolata</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Bellis perennis</u>		<u>10%</u>	<u>No</u>	<u>NOL</u>	
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
11. <u> </u>					
90% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1. <u>None</u>					
2. <u> </u>					
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>10%</u>				

Remarks:



SOIL						Sampling Point: WL G12-11	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type1	Loc2	Texture
0-4	10YR 2/2	100					L
4-16+	10YR 4/2	80	10YR 4/6	10	C	M	SaL
			7.5YR 4/6	10	C	M	

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 No saturation of groundwater table observed to the excavated depth of 16 inches.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King State: WA Sampling Date: 3/25/2020
 Applicant/Owner: Port of Seattle Sampling Point: WL H-1
 Investigator(s): Josh Wozniak and Kaylee Moser Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): None Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429331 Long: -122.305509 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL H-1 is the paired upland plot to SP WL H-2. This plot is upslope of Wetland H and approximately 3 feet east of the access road. Although the plot meets for vegetation and soils, there was no saturation or groundwater table observed to the excavated depth of 20 inches, despite early growing conditions which are wetter than normal according to the WETS tables.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>None</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
<u>0%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
<u>0%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Poa pratensis</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Schedonorus arundinaceus</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
11. <u> </u>				
<u>100%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				
2. <u> </u>				
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0%</u>				

Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.01
 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
 5 - Wetland Non-Vascular Plants1
 Problematic Hydrophytic Vegetation (Explain)1
1Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc2		
0-8	10YR 2/2	100					L	
8-20	10YR 5/2	95	10YR 4/4	5	C	M	SaL	

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils3:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

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

<p>Restrictive Layer (if present):</p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p>Hydric Soil Present? Yes <u>X</u> No <u> </u></p>
--	--

Remarks:

HYDROLOGY

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

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

Remarks:
No saturation or water table within the upper 20 inches despite wetter than normal conditions.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King State: WA Sampling Date: 3/25/2020
 Applicant/Owner: Port of Seattle Sampling Point: WL H-2
 Investigator(s): Josh Wozniak and Kaylee Moser Section, Township, Range: S04 T22N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.429299 Long: -122.305411 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Urban Land - Ur - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL H-2 is located along the western boundary of wetland H, which is located on the far east side of study area and approximately 50 yards north of the West Fork of Des Moines Creek. According to the WETS tables, hydrologic conditions have been wetter than normal for the three month period prior to field work.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B)
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
	<u>0%</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0%</u> = Total Cover			
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants1 Problematic Hydrophytic Vegetation (Explain)1 <small>1Indicators of hydric soil and wetland hydrology must be present.</small>
1. <u>Poa pratensis</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Holcus lanatus</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	<u>100%</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u>None</u>				
2. _____				
	<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum	<u>0%</u>			

Remarks:

SOIL **Sampling Point:** WL H-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc2		
0-4	10YR 2/2	100					L	
4-17	2.5Y 5/1	65	5YR 5/8	25	C	M	SaL	
			7.5YR 4/6	10	C	M		
17-22	2.5Y 4/1	80	10YR 5/8	20	C	M	LSa	coarse

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

3Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils3:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)	
	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Depth (inches): <u>6</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-1
 Investigator(s): Josh Wozniak, Kaylee Moser, Matt Murphy Section, Township, Range: S16 T23N R4E
 Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): convex Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: A Long: -122.310502 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - - - NWI classification: PFOC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-N3-1(WET) is located along the eastern edge of Wetland N3.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	80%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. <u>Salix scouleriana</u>	20%	Yes	FAC	Total Number of Dominant Species Across All Strata: <u>7</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
100% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>Oemleria cerasiformis</u>	20%	Yes	FACU	FACW species _____ x 2 = _____	
2. <u>Rubus armeniacus</u>	5%	Yes	FAC	FAC species _____ x 3 = _____	
3. <u>Rubus ursinus</u>	5%	Yes	FACU	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
30% = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Phalaris arundinacea</u>	50%	Yes	FACW		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Ranunculus repens</u>	40%	Yes	FAC		X 2 - Dominance Test is >50%
3. <u>Rubus ursinus</u>	5%	No	FACU		3 - Prevalence Index is ≤3.0 ¹
4. <u>Geranium robertianum</u>	5%	No	FACU		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
100% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>0%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					SaL	
2-15	10YR 4/1	85	7.5YR 4/6	15	C	M	SaL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
Oxidized rhizospheres at 9 inches.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-2
 Investigator(s): Josh Wozniak, Kaylee Moser, Matt Murphy Section, Township, Range: S16 T23N R4E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.477236 Long: -122.310427 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett - 3059 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-N3-2 is upslope of Wetland N3.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:
1.	<u>Populus balsamifera</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Salix scouleriana</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:
105% = Total Cover					Total % Cover of: <u> </u> Multiply by: <u> </u>
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)					OBL species <u> </u> x 1 = <u> </u>
1.	<u>Oemleria cerasiformis</u>	<u>100%</u>	<u>Yes</u>	<u>FACU</u>	FACW species <u> </u> x 2 = <u> </u>
2.	<u>Rubus ursinus</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	FAC species <u> </u> x 3 = <u> </u>
3.	<u>Salix scouleriana</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FACU species <u> </u> x 4 = <u> </u>
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)
105% = Total Cover					Prevalence Index = B/A = <u> </u>
Herb Stratum (Plot size: <u>r=1m</u>)					Hydrophytic Vegetation Indicators:
1.	<u>Polystichum munitum</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 2 - Dominance Test is >50%
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 3 - Prevalence Index is ≤3.0 ¹
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5 - Wetland Non-Vascular Plants ¹
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain) ¹
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present.
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
11.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5% = Total Cover					Hydrophytic Vegetation Present?
Woody Vine Stratum (Plot size: <u>r=2m</u>)					Yes <u> </u> No <u>X</u>
1.	<u>none</u>	<u> </u>	<u> </u>	<u> </u>	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0% = Total Cover					
% Bare Ground in Herb Stratum <u>95%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-10	10YR 2/2	100					L	
10-16	10YR 3/2	100					Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/17/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-3
 Investigator(s): Josh Wozniak and Kathryn Seckel Section, Township, Range: S16 T23N R5E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.475676 Long: -122.311240 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: PFOC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located in the NE corner of the wetland.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
25% = Total Cover				OBL species _____ x 1 = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	FACW species _____ x 2 = _____	
1. <u>Rubus spectabilis</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2. <u>Rubus armeniacus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
60% = Total Cover				Hydrophytic Vegetation Indicators:	
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		1 - Rapid Test for Hydrophytic Vegetation
1. <u>Ranunculus repens</u>	<u>65%</u>	<u>Yes</u>	<u>FAC</u>		<u>X</u> 2 - Dominance Test is >50%
2. <u>Athyrium cyclosorum</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>		3 - Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
95% = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>None</u>	<u>0%</u>	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>5%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/1	100					L	
5-10	10YR 4/1	90	5YR 3/4	10	C	M	L	
10-16+	2.5Y 5/1	80	5YR 3/4	10	C	M	Gr LS	
			10YR 6/8	10	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Oxidized rhizospheres 2-10 inches; C4: AAD test positive.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/31/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-4
 Investigator(s): Kaylee Moser and Kathryn Seckel Section, Township, Range: S16 T23N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): none Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.475586 Long: -122.311221 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP3-4 is the paired upland plot for SP3-3. It is located upslope of the northeast boundary of wetland N3.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
1. <u>Pseudotsuga menziesii</u>	<u>70%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>70%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
1. <u>Rubus spectabilis</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Ilex aquifolium</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Rubus ursinus</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>60%</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Hedera helix</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>5%</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1. <u>none</u>	<u>0%</u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum	<u>95%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/1	100					SL	
3-15+	10YR 3/2	99	7.5YR 4/6	1	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/22/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-5
 Investigator(s): Kaylee Moser and Matthew Murphy Section, Township, Range: S16 T23N R04E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.474717 Long: -122.312591 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: PFOC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is upland of the southeast end of wetland N3; within previously mapped wetland area.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Tsuga heterophylla</u>	<u>70%</u>	<u>Yes</u>	<u>FACU</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. <u>Betula papyrifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>17%</u> (A/B)	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:	
90% = Total Cover					Total % Cover of: <u> </u> Multiply by: <u> </u>
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species <u> </u> x 1 = <u> </u>	
1. <u>Sorbus aucuparia</u>	<u>70%</u>	<u>Yes</u>	<u>NOL</u>	FACW species <u> </u> x 2 = <u> </u>	
2. <u>Corylus cornuta</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	FAC species <u> </u> x 3 = <u> </u>	
3. <u>Rubus spectabilis</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FACU species <u> </u> x 4 = <u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)	
95% = Total Cover				Prevalence Index = B/A = <u> </u>	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Hedera helix</u>	<u>55%</u>	<u>Yes</u>	<u>FACU</u>		<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Gaultheria shallon</u>	<u>33%</u>	<u>Yes</u>	<u>FACU</u>		<u> </u> 2 - Dominance Test is >50%
3. <u>Pteridium aquilinum</u>	<u>7%</u>	<u>No</u>	<u>FACU</u>		<u> </u> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Maianthemum dilatatum</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>		<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u> 5 - Wetland Non-Vascular Plants ¹
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u> Problematic Hydrophytic Vegetation (Explain) ¹
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>		¹ Indicators of hydric soil and wetland hydrology must be present.
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
100% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	<u>0%</u>	<u> </u>	<u> </u>		
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>0%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/2	100					L	
4-7	10YR 4/4	95	7.5YR 4/6	5	C	M	LS	
7-16	2.5Y 5/2	80	10YR 4/6	10	C	M	Gr LS	
			10YR 3/6	10	C	M	LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Does not meet S5 (sandy redox) because depleted layer does not start within 6 inches.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/22/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-6
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: S16 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.474790 Long: -122.312737 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: PFOC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP N3-6 is located within the southeast corner of Wetland N3, below topographic break and SP-N3-5 upland.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	<u>None</u>				
2.					That Are OBL, FACW, or FAC: <u>1</u> (A)
3.					Total Number of Dominant
4.					Species Across All Strata: <u>1</u> (B)
		<u>0%</u>	= Total Cover		Percent of Dominant Species
					That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet:
1.	<u>Rubus spectabilis</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2.					OBL species _____ x 1 = _____
3.					FACW species _____ x 2 = _____
4.					FAC species _____ x 3 = _____
5.					FACU species _____ x 4 = _____
		<u>75%</u>	= Total Cover		UPL species _____ x 5 = _____
					Column Totals: _____ (A) _____ (B)
					Prevalence Index = B/A = _____
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:
1.	<u>None</u>				<u>1</u> - Rapid Test for Hydrophytic Vegetation
2.					<u>X</u> <u>2</u> - Dominance Test is >50%
3.					<u>3</u> - Prevalence Index is ≤3.0 ¹
4.					<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.					<u>5</u> - Wetland Non-Vascular Plants ¹
6.					Problematic Hydrophytic Vegetation (Explain) ¹
7.					¹ Indicators of hydric soil and wetland hydrology must be present.
8.					
9.					
10.					
11.					
		<u>0%</u>	= Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				
1.	<u>None</u>				
2.					
		<u>0%</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>100%</u>					Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-8	10YR 2/1	100					L	w/ sapric organic
8-10	10YR 5/2	98	7.5YR 4/4	2	C	M	L	
10-16	10YR 2/1	100					L	w/ sapric organic
16+	10YR 4/1	98	10YR 7/1	1	C	M	L	diatomaceous earth
			10YR 2/1					Manganese

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:
 SP is located along the edge of a depression, close to the toe of slope.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-7
 Investigator(s): Kaylee Moser Matthew Murphy Section, Township, Range: S17 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.474258 Long: -122.312895 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: PFOC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located at the south end of wetland N-3 located at the toe of slope.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:	
1.	<u>None</u>					Number of Dominant Species
2.					That Are OBL, FACW, or FAC: <u>4</u> (A)	
3.					Total Number of Dominant	
4.					Species Across All Strata: <u>4</u> (B)	
		<u>0%</u>	= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)						
1.	<u>Salix sitchensis</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
2.	<u>Rubus spectabilis</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index worksheet:	
3.	<u>Spiraea douglasii</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>		Total % Cover of: <u> </u> Multiply by: <u> </u>
4.	<u>Lonicera involucrata</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	OBL species <u> </u> x 1 = <u> </u>	
5.					FACW species <u> </u> x 2 = <u> </u>	
		<u>90%</u>	= Total Cover		FAC species <u> </u> x 3 = <u> </u>	
Herb Stratum (Plot size: <u>r=1m</u>)						
1.	<u>Athyrium cyclosorum</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	FACU species <u> </u> x 4 = <u> </u>	
2.					UPL species <u> </u> x 5 = <u> </u>	
3.					Column Totals: <u> </u> (A) <u> </u> (B)	
4.					Prevalence Index = B/A = <u> </u>	
5.					Hydrophytic Vegetation Indicators:	
6.						<u>1</u> - Rapid Test for Hydrophytic Vegetation
7.						<u>X</u> <u>2</u> - Dominance Test is >50%
8.						<u>3</u> - Prevalence Index is ≤3.0 ¹
9.						<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10.						<u>5</u> - Wetland Non-Vascular Plants ¹
11.						Problematic Hydrophytic Vegetation (Explain) ¹
						¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum (Plot size: <u>r=2m</u>)						
1.	<u>None</u>					Hydrophytic Vegetation Present?
2.						
		<u>0%</u>	= Total Cover			
% Bare Ground in Herb Stratum		<u>95%</u>				

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-2	10YR 2/2	100					L	
2-13	10YR 4/2	90	7.5YR 5/6	10	C	M	L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/22/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-8
 Investigator(s): Kaylee Moser and Matthew Murphy Section, Township, Range: S16 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.474240 Long: -122.312872 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: PFOC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP is upland along south boundary of wetland N3.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1.	<u>Alnus rubra</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)		
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)		
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet:		
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		Total % Cover of: <u> </u> Multiply by: <u> </u>	
60% = Total Cover					OBL species <u> </u> x 1 = <u> </u>		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				FACW species <u> </u> x 2 = <u> </u>		
1.	<u>Rubus armeniacus</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u> </u> x 3 = <u> </u>		
2.	<u>Lonicera involucrata</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FACU species <u> </u> x 4 = <u> </u>		
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u> </u> x 5 = <u> </u>		
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u> </u> (A) <u> </u> (B)		
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index = B/A = <u> </u>		
35% = Total Cover					Hydrophytic Vegetation Indicators:		
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)					<u> </u> 1 - Rapid Test for Hydrophytic Vegetation	
1.	<u>Reynoutria japonica</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>		<u> </u> 2 - Dominance Test is >50%	
2.	<u>Polystichum munitum</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>		<u> </u> 3 - Prevalence Index is ≤3.0 ¹	
3.	<u>Athyrium cyclosorum</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>		<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u> 5 - Wetland Non-Vascular Plants ¹	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u> Problematic Hydrophytic Vegetation (Explain) ¹	
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		¹ Indicators of hydric soil and wetland hydrology must be present.	
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>		Hydrophytic Vegetation Present?	
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>			Yes <u> </u> No <u>X</u>
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
85% = Total Cover							
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)						
1.	<u>None</u>	<u>0%</u>	<u> </u>	<u> </u>			
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
0% = Total Cover							
% Bare Ground in Herb Stratum <u>15%</u>							

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-1	10YR 2/2	100				L	
1-15	2.5YR 3/2	100				Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/22/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-9
 Investigator(s): Kaylee Moser and Matthew Murphy Section, Township, Range: S16 T23N R04E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): None
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.474968 Long: -122.311550 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located in lobe off Wetland N3, appears to be hydrologically connected across the trail.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus balsamifera</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	<u>90%</u> = Total Cover	_____	_____		Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>Cornus alba</u>	<u>75%</u>	<u>Yes</u>	<u>FACW</u>	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
	<u>75%</u> = Total Cover	_____	_____	Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>none</u>	_____	_____	_____		1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		<u>X</u> 2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	<u>0%</u> = Total Cover	_____	_____		
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>Hedera helix</u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>		
2. _____	_____	_____	_____		
	<u>15%</u> = Total Cover	_____	_____		
% Bare Ground in Herb Stratum	<u>100%</u>			Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-11	10YR 4/2	95	10YR 4/6	5	C	M	Gr L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>y compacted soils</u> Depth (inches): <u>11"</u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
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Remarks:
 Hard concrete like layer at 11 inches.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Water Table Present? Yes <u>X</u> No <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> (includes capillary fringe)	Depth (inches): <u> </u> Depth (inches): <u>10</u> Depth (inches): <u>9</u>
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

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

Remarks:
 Hydrology was investigated in MARch 2020 during early growing season conditions. Biologists excavated SP WL N3-9 and found a groundwater table at 10 inches and saturation at 9 inches below the soil surface.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/31/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N3-10
 Investigator(s): Kaylee Moser and Katheryn Seckel Section, Township, Range: S16 T23N R04E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): convex Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.474903 Long: -122.311567 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): pod-Everett-Urban land complex, 0 to 12 percent - 3058 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, 0.0" of precipitation was received on the day of fieldwork and 1.97" during the two weeks prior. Precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL N3-10 is located upslope of the eastern lobe of Wetland N3.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	80%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
80% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>rubus ursinus</u>	5%	Yes	FACU	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
0% = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Hedera helix</u>	70%	Yes	FACU		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Polystichum munitum</u>	20%	Yes	FACU		2 - Dominance Test is >50%
3. <u>Rubus armeniacus</u>	5%	Yes	FAC		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
95% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>5%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-16	10YR 4/2	100				L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/10/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N4-1
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: S16 T23N R4E
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): convex Slope (%): <3%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.478371 Long: -122.310028 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett-Urban Land - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>	

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP WL N4-1 is located with Wetland N4.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Salix sitchensis</u>	15%	Yes	FACW		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
15% = Total Cover				OBL species _____ x 1 = _____	
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				FACW species _____ x 2 = _____	
1. <u>Populus balsamifera</u>	30%	Yes	FACU	FAC species _____ x 3 = _____	
2. _____	_____	_____	_____	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
30% = Total Cover				Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot size: <u>r=1m</u>)					
1. <u>Phalaris arundinacea</u>	95%	Yes	FACW		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Epilobium ciliatum</u>	1%	No	FACW		X 2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
96% = Total Cover				Woody Vine Stratum (Plot size: <u>r=2m</u>)	
1. <u>None</u>	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>4%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-2	10YR 3/2	100					L	
2-6	10YR 3/2	95	7.5YR 4/4	5	C	M	L	
6-10	10YR 4/1	95	7.5YR 4/4	5	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>none</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
 Compacted fill present below 10 inches and has 7.5YR 4/4 redox on some rock faces.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0;surface</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0;surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Parametrix conducted a hydrology investigation in March 2020 and documented 3 inches of surface water and groundwater table/saturation at the soil surface.

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 9/25/19
 Applicant/Owner: Port of Seattle State: WA Sampling Point: N4-2
 Investigator(s): Josh Wozniak, Kaylee Moser Section, Township, Range: S16 T23N R4E
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): >10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.478133 Long: -122.310104 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): Alderwood-Everett - 3058 - Not Hydric NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Precipitation:
 According to the Seattle Tacoma INTL AP NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP-N4-2 is upland, south of Wetland N4. Area contains historical fill.

VEGETATION

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>none</u>				
2.					
3.					
4.					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u>)				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
1.	<u>Rubus armeniacus</u>	60%	Yes	FAC	
2.	<u>Populus balsamifera</u>	10%	No	FAC	
3.	<u>Cytisus scoparius</u>	5%	No	NL	
4.					
5.					
		105% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Poa pratensis</u>	70%	Yes	FAC	
2.	<u>Cichorium intybus</u>	10%	No	FACU	
3.	<u>Hypochaeris radicata</u>	10%	No	FACU	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		90% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1.	<u>none</u>				
2.					
		0% = Total Cover			
% Bare Ground in Herb Stratum		<u>10%</u>			

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Gr L	
2-16	10YR 4/3	98	10YR 4/4	2	C	M	Gr SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u> X </u>
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Remarks:

HYDROLOGY

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

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

Remarks:

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/24/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: R15-1
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 5-10%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452621 Long: -122.324050 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): an land-Alderwood complex, 12 to 35 percent slc - 3057 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
			Yes <u>X</u> No _____

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP along southeast edge of wetland R15.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	70%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
70% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>Rubus armeniacus</u>	30%	Yes	FAC	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
30% = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Equisetum telmateia</u>	15%	Yes	FACW		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Polystichum munitum</u>	10%	Yes	FACU		<u>X</u> 2 - Dominance Test is >50%
3. <u>Athyrium cyclosorum</u>	2%	No	FAC		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
27% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>Hedera helix</u>	30%	Yes	FACU		
2. _____	_____	_____	_____		
30% = Total Cover					
% Bare Ground in Herb Stratum <u>73%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-8	2.5Y 3/2	100					L	
8-11	10YR 4/1	60	10YR 4/6	30	C	M	L	
			10YR 3/1	10	C	M	L	
11-12	10YR 3/1	70	10YR 4/6	20	C	M	L	
			10YR 4/1	10	D	M	L	
12-15	10Y 6/1	60	10YR 4/6	40			S	with patches of clay
15-16	10YR 3/1	70	10Y 6/1	20	D	M	S	
			10YR 4/6	10	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
 Layers 16-19 inches 10Y 6/1 with 10YR 4/6 40 - C/M - Sand. Layers are fragmented with depleted matrix.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 SP WL R15-1 was sampled during the late growing season. It is assumed that SP WL R15-1 has 14 or more consecutive days of ponding or flooding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (following the Corps definition of wetland hydrology).

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

Project/Site: SeaTac SAMP City/County: SeaTac/King Sampling Date: 10/24/2019
 Applicant/Owner: Port of Seattle State: WA Sampling Point: R15-2
 Investigator(s): Matthew Murphy Section, Township, Range: S29 T23N R04E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-5%
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.452615 Long: -122.323983 Datum: NAD 1983
 Soil Unit (Name-ID-Hydric Rating): an land-Alderwood complex, 12 to 35 percent slc - 3057 - Not Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the SeaTac International Airport NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

Remarks:
 SP located on east side of wetland R-15 on upland hillslope.

VEGETATION

<u>Tree Stratum</u> (Plot size: <u>r=3m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Alnus rubra</u>	80%	Yes	FAC		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
80% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>r=2m</u>)				OBL species _____ x 1 = _____	
1. <u>Rubus spectabilis</u>	20%	Yes	FAC	FACW species _____ x 2 = _____	
2. <u>Rubus armeniacus</u>	20%	Yes	FAC	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
40% = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>r=1m</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Equisetum telmateia</u>	10%	Yes	FACW		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Polystichum munitum</u>	5%	No	FACU		X 2 - Dominance Test is >50%
3. <u>Pteridium aquilinum</u>	2%	No	FACU		3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
17% = Total Cover					
Woody Vine Stratum (Plot size: <u>r=2m</u>)					
1. <u>Hedera helix</u>	100%	Yes	FACU		
2. _____	_____	_____	_____		
100% = Total Cover					
% Bare Ground in Herb Stratum <u>83%</u>					

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					L	
3-8	10YR 3/2	98	2.5YR 3/6	1	C	M	Gr L	
			10YR 4/2	1	D	M	L	
8-16	2.5Y 4/3	95	10YR 3/2	5	C	M	L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: <u>None</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <u> </u> No <u> X </u>
---	---

Remarks:

HYDROLOGY

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

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

Remarks:

Appendix D

Ecology Rating Forms

Wetland name or number: Wetland 1

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 1 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category IV] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	L	
Landscape Potential	M	L	L	
Value	H	H	L	Total
Score Based on Ratings	6	5	3	14

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 1

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland 1

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 1

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **3****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from airplanes

Total for S 2: **1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 1

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 0
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		3

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 1

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 1

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
 Emergent
 Scrub-shrub
 Forested
 Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 0**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
 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
 Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
<5 species	points = 0

Score: 0

Wetland name or number: Wetland 1

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 0	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 1	
Total for H 1: 2	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 1

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 0
Total for H 3:		0

Rating of Value

[] 2 = H [] 1 = M [X] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 1

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 1

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 1

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

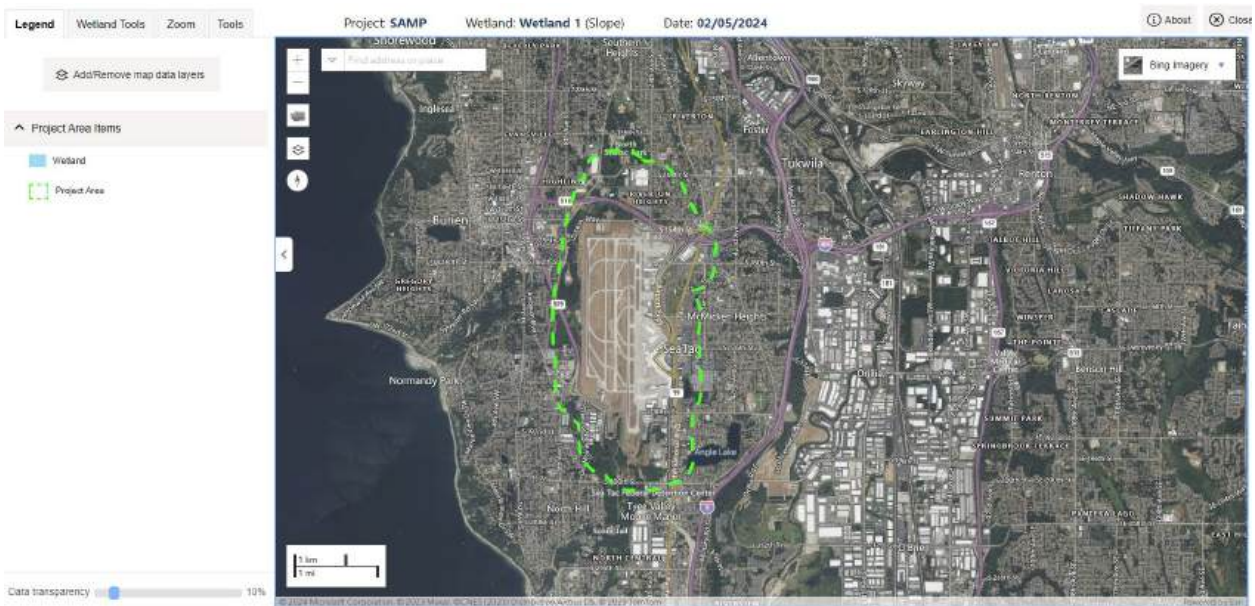
Result:

Wetland name or number: Wetland 1

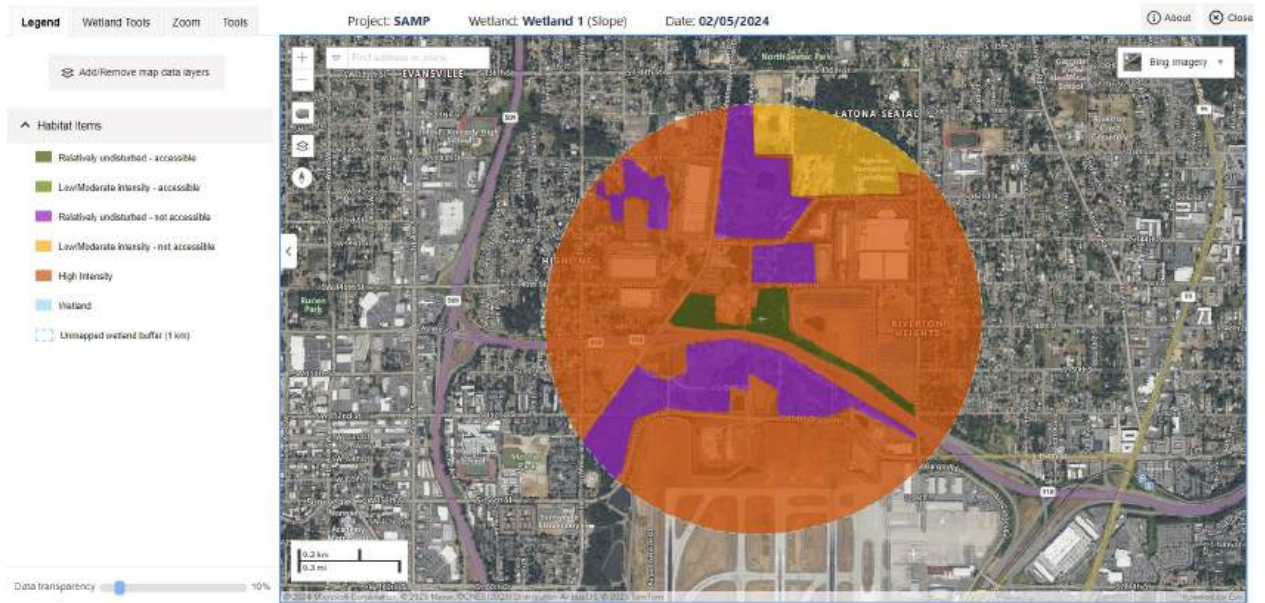
Category of wetland based on Special Characteristics

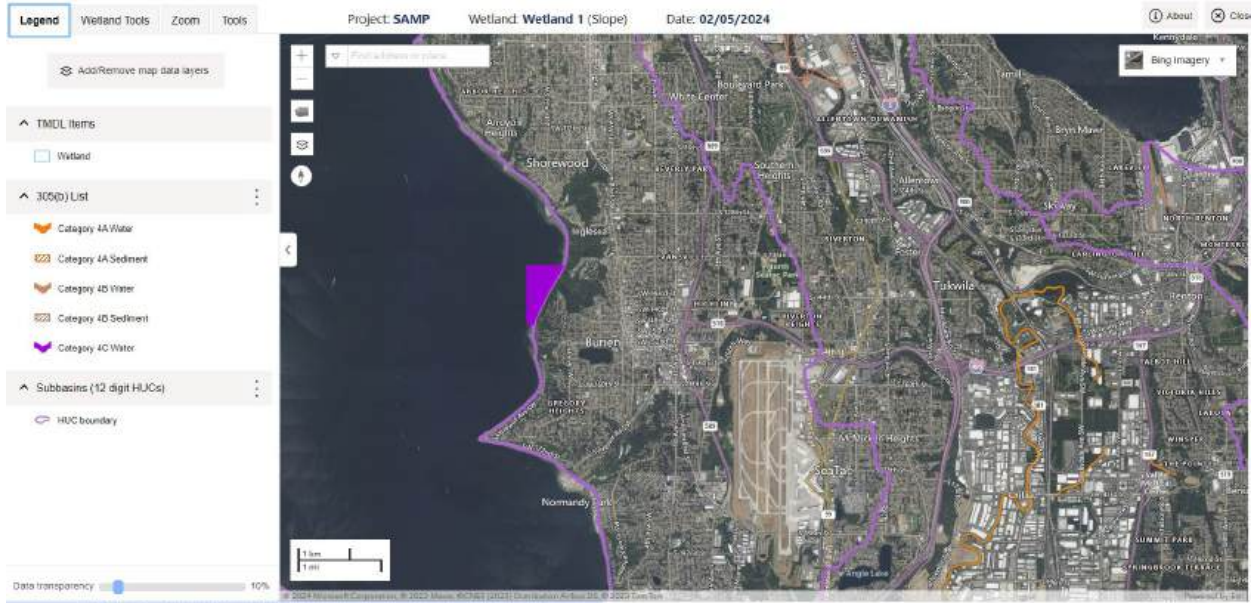
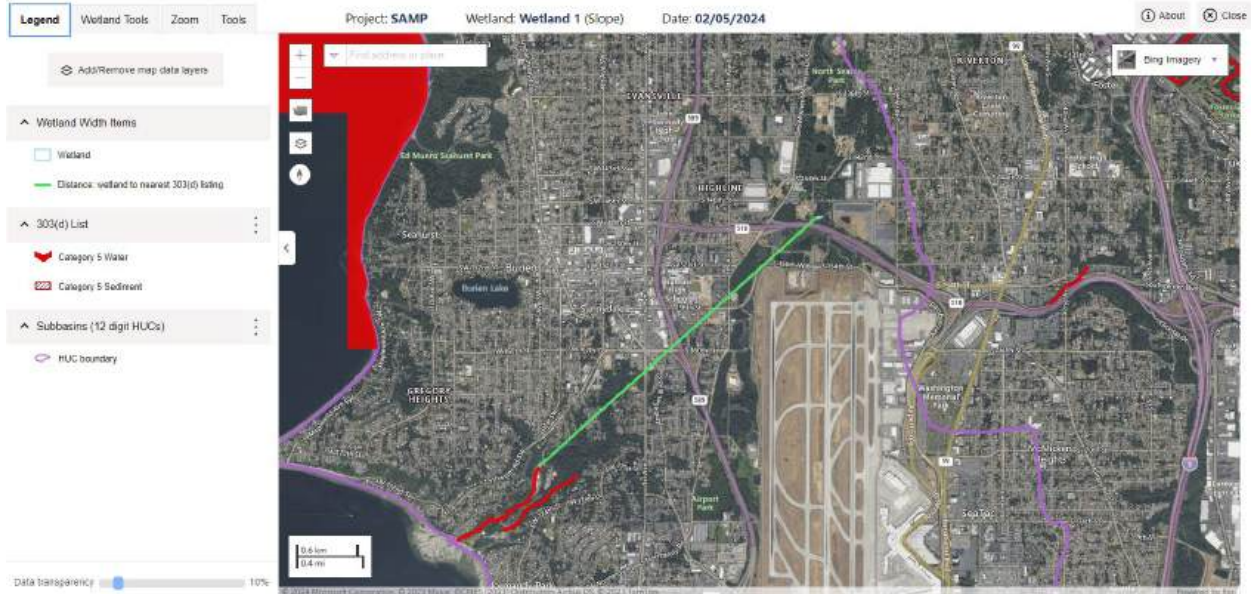
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland 2

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 2 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	M	
Landscape Potential	M	L	L	
Value	H	H	M	Total
Score Based on Ratings	6	5	5	16

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 2

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland 2

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 1

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **3****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from airplanes

Total for S 2: **1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 2

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 0
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		3

Rating of Value 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS**Hydrologic Functions** - Indicators that the site functions to reduce flooding and stream degradation

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential 1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 2

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland 2

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 2

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 1

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland 2

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 1	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 2

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 1
Total for H 3:		1

Rating of Value

[] 2 = H [X] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 2

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 2

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 2

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

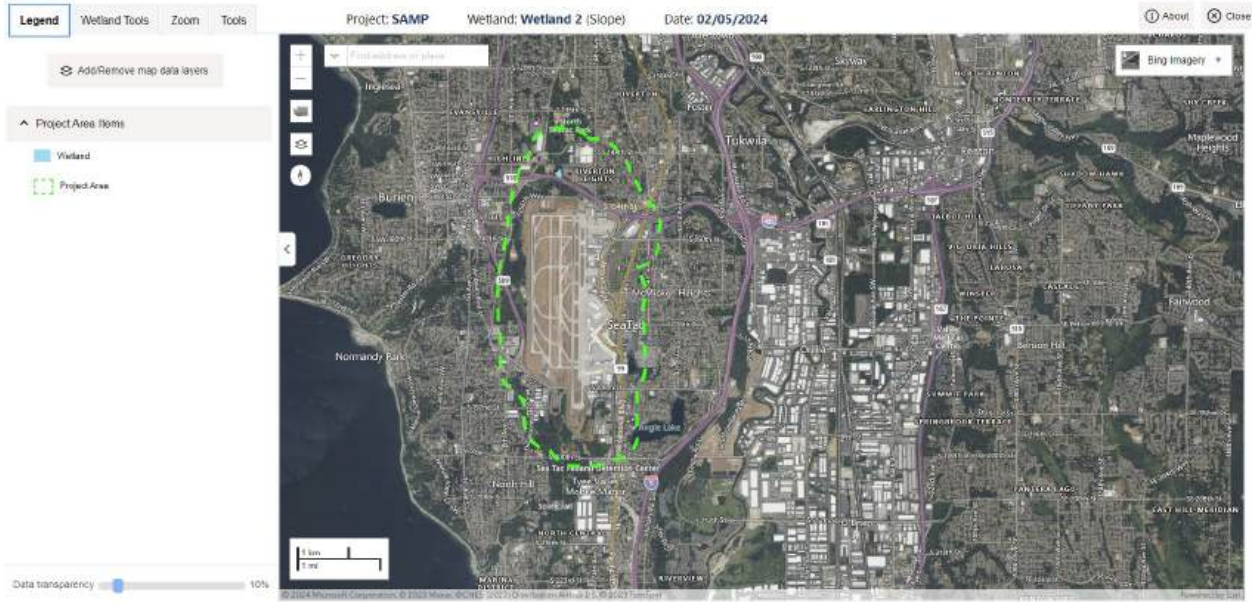
Result:

Wetland name or number: Wetland 2

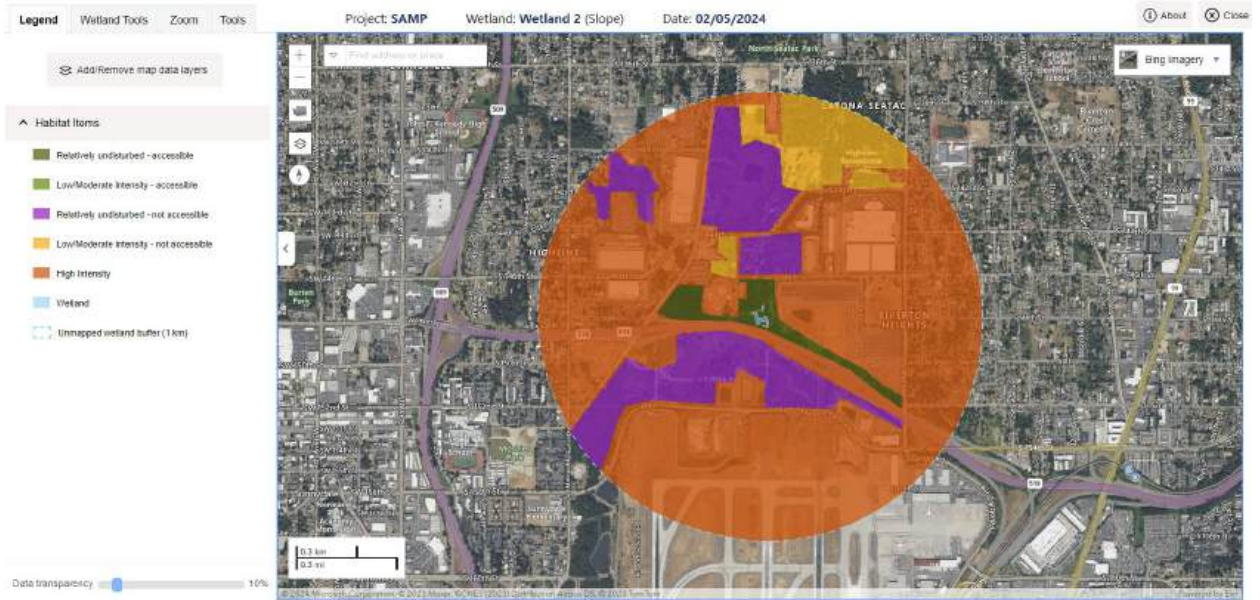
Category of wetland based on Special Characteristics

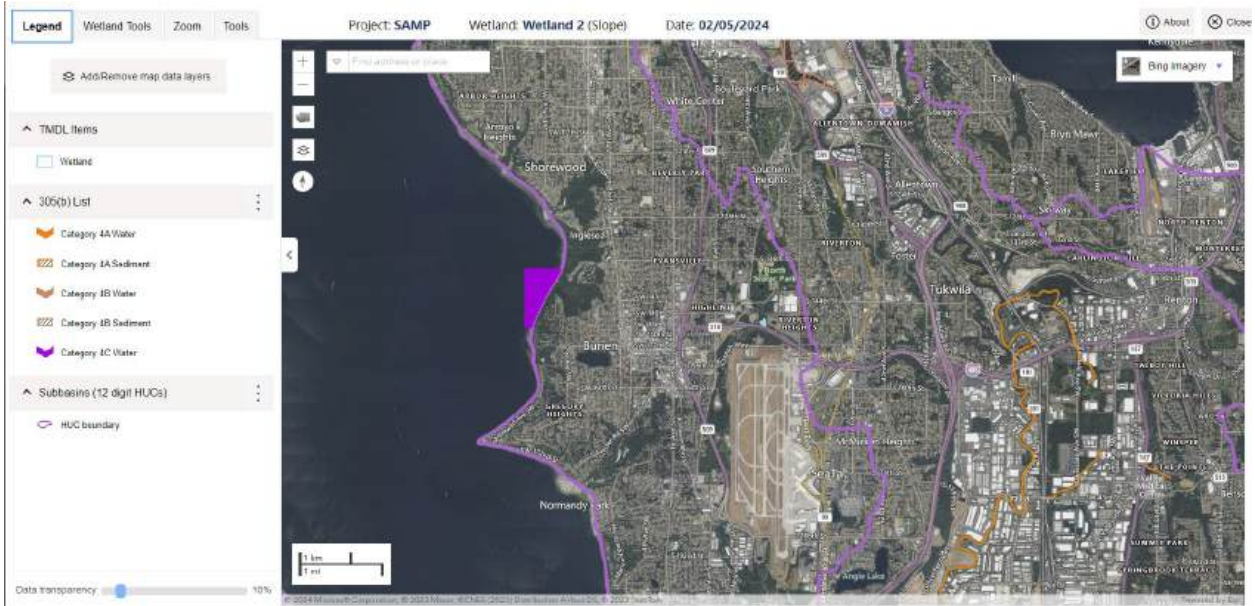
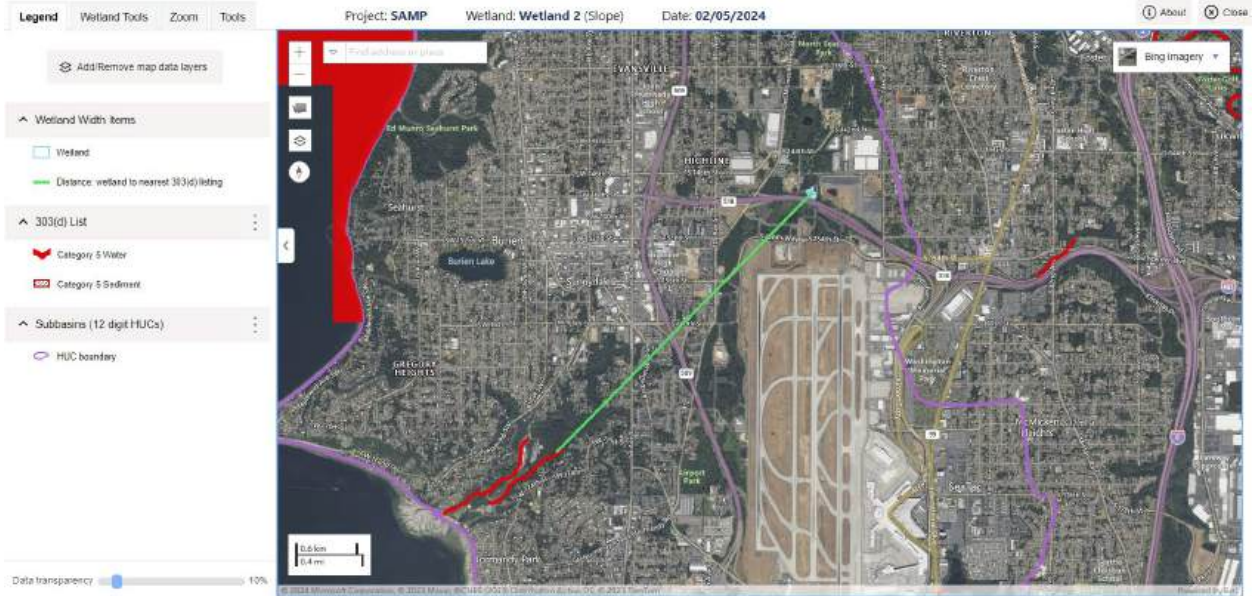
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Ads/Remove map data layers

- Land Use Items
 - Generates excessive runoff
 - Generates pollutants
 - Generates excessive runoff and pollutants
 - Upland within 150' wetland buffer
 - Wetland
 - Wetland buffer (150')

Data transparency 10%



Wetland name or number: Wetland 4

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 4 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	8	6	22

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 4

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: Wetland 4

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**D 1.0 Does the site have the potential to improve water quality?****D 1.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 2

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0

Total for D 1: **7****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?**D 2.1** Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 1

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 1

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 4**D 2.5** What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from airplanes flying overhead

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation**D 4.0** Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 2**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 0

Wetland name or number: Wetland 4

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 5
Total for D 4:		7

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 4

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 1

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland 4

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 4	
Total for H 1: 8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 4

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 4

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 4

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 4

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

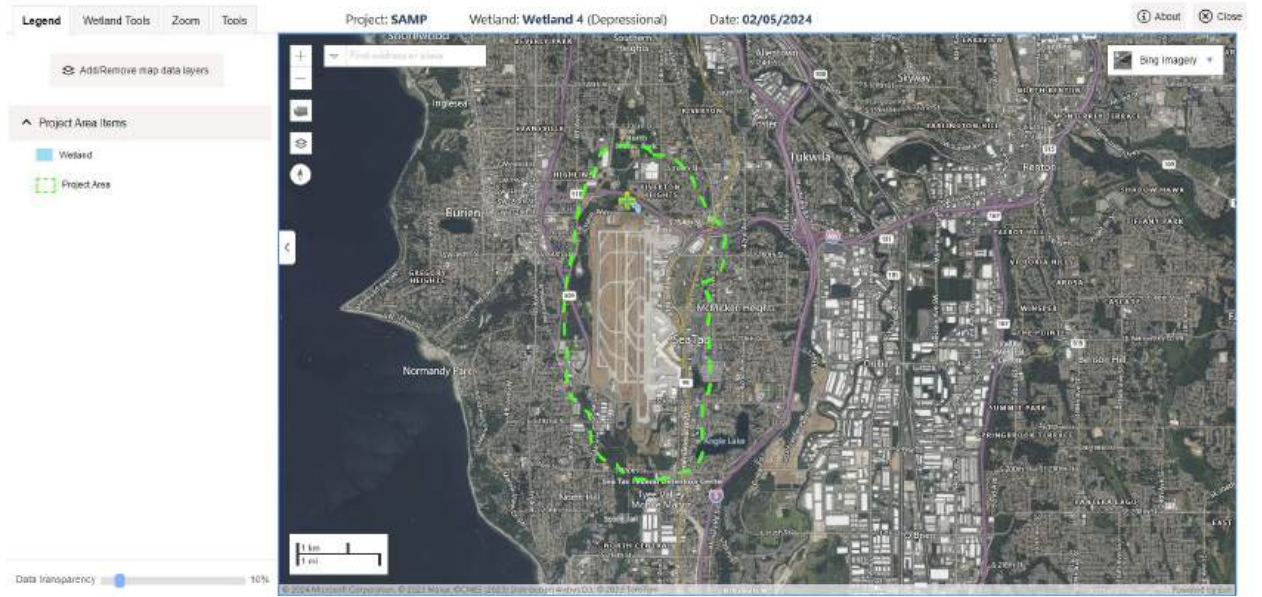
Result:

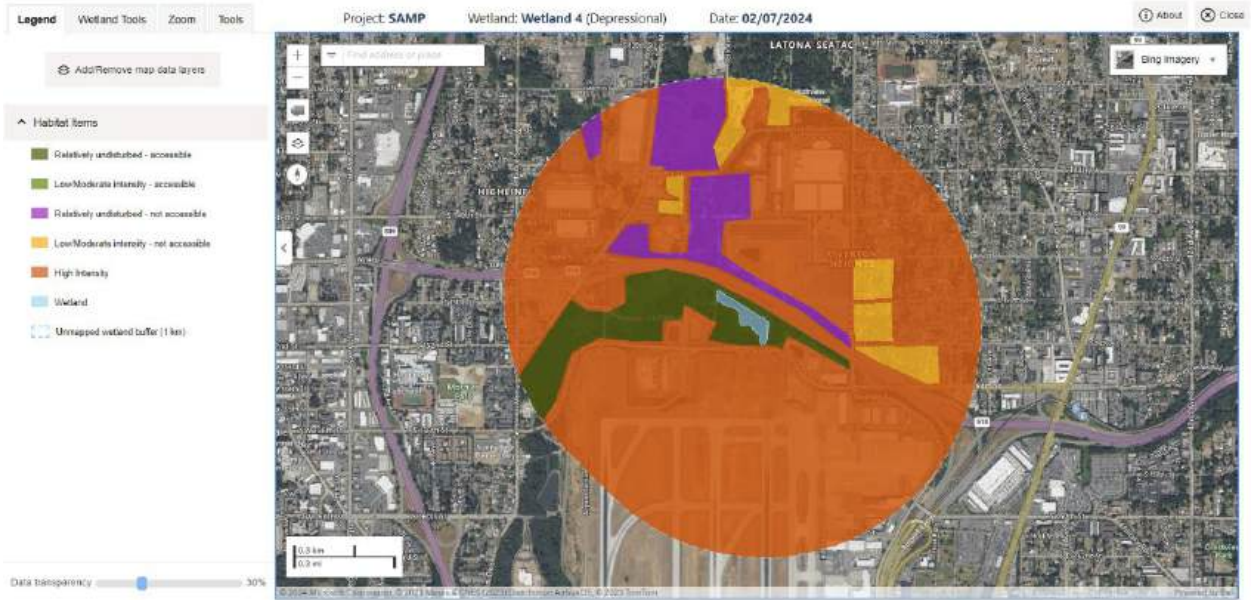
Wetland name or number: Wetland 4

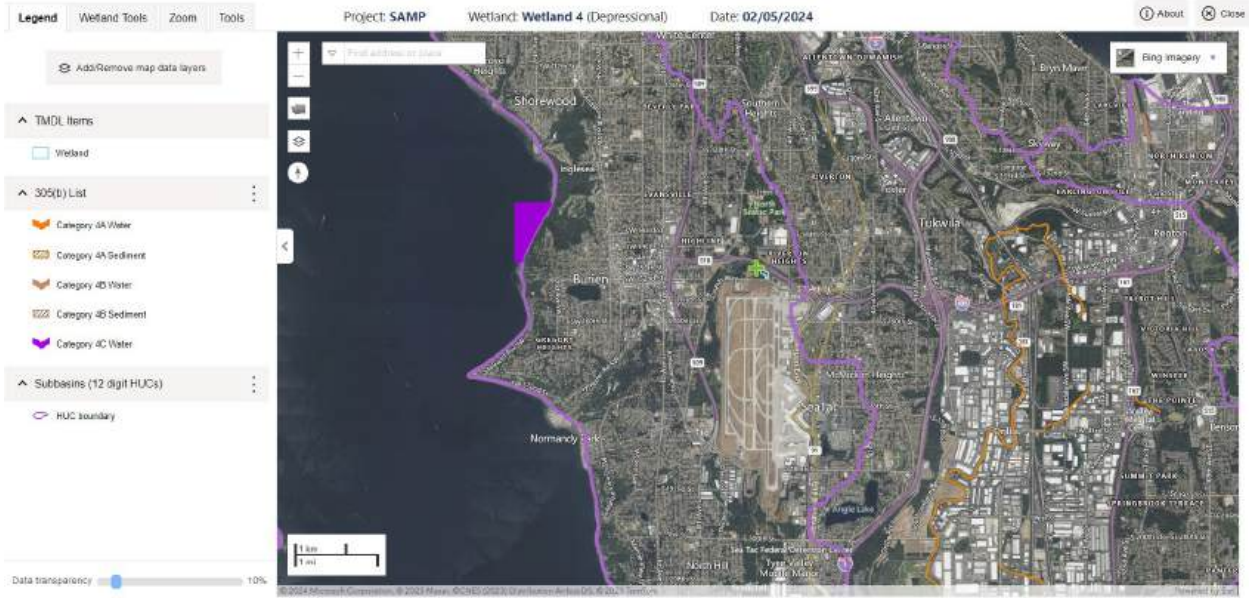
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**







Wetland name or number: Wetland 5

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 5 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	8	6	22

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 5

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: Wetland 5

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**D 1.0 Does the site have the potential to improve water quality?****D 1.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 2

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0

Total for D 1: **7****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?**D 2.1** Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 1

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 1

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 5**D 2.5** What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from overhead aircraft

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0 Is the water quality improvement provided by the site valuable to society?****D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation**D 4.0 Does the site have the potential to reduce flooding and erosion?****D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 2**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 0

Wetland name or number: Wetland 5

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 5
Total for D 4:		7

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 5

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
 Emergent
 Scrub-shrub
 Forested
 Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
 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
 Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland 5

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 5

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 5

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

Result:

Wetland name or number: Wetland 5

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 5

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

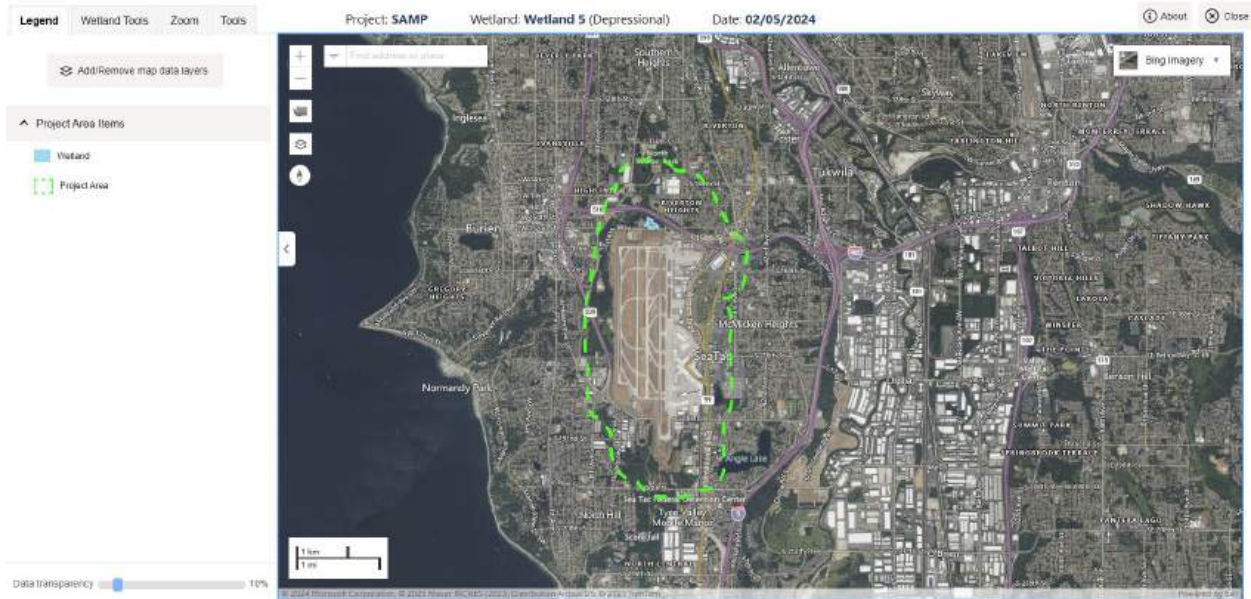
Result:

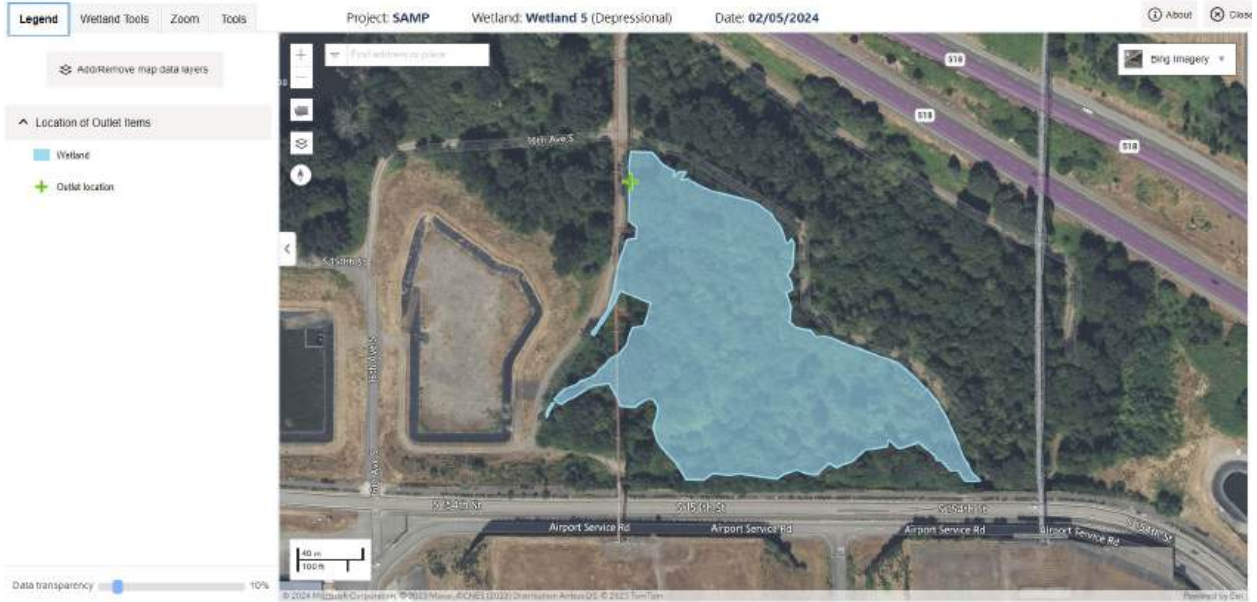
Wetland name or number: Wetland 5

Category of wetland based on Special Characteristics

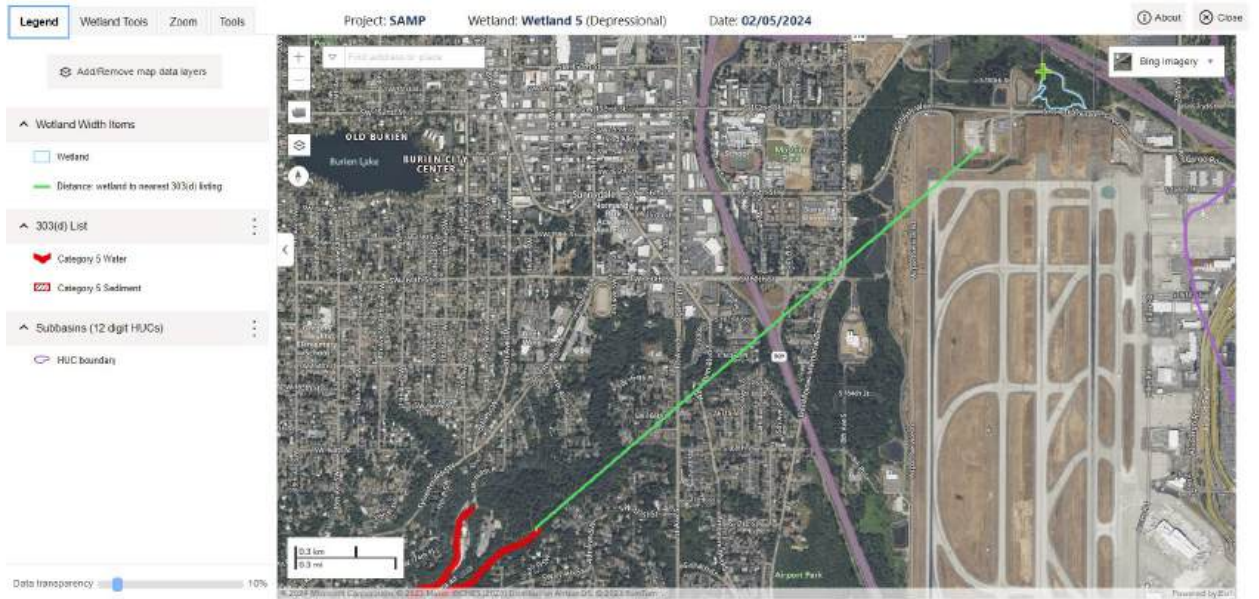
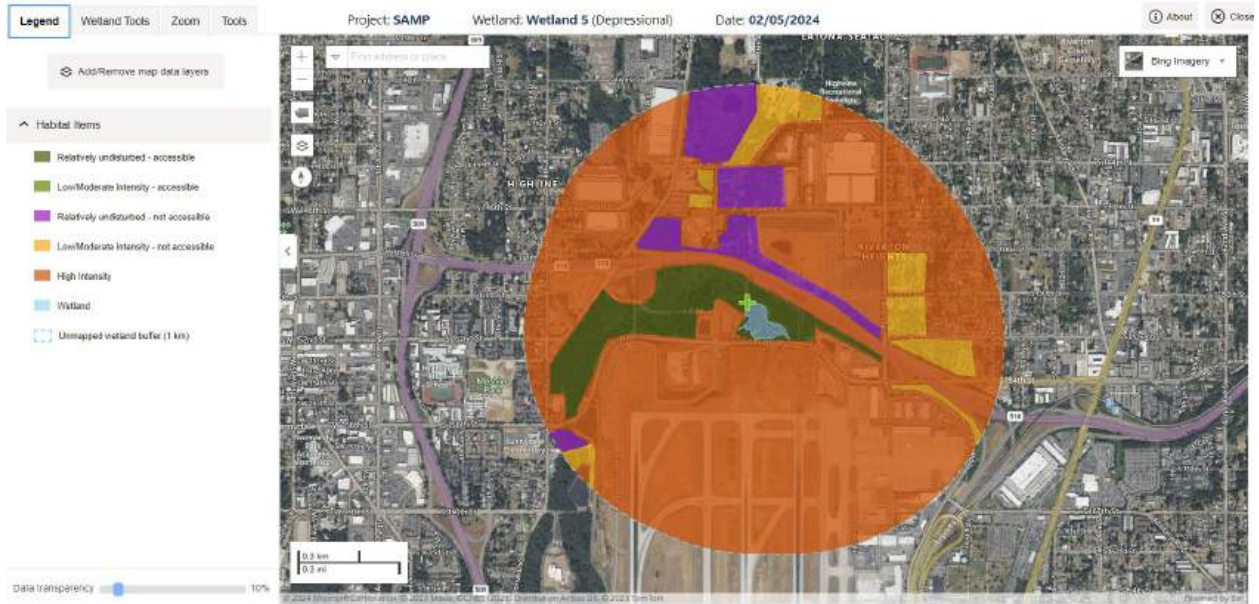
If you answered No for all types, enter "Not Applicable" on Summary Form

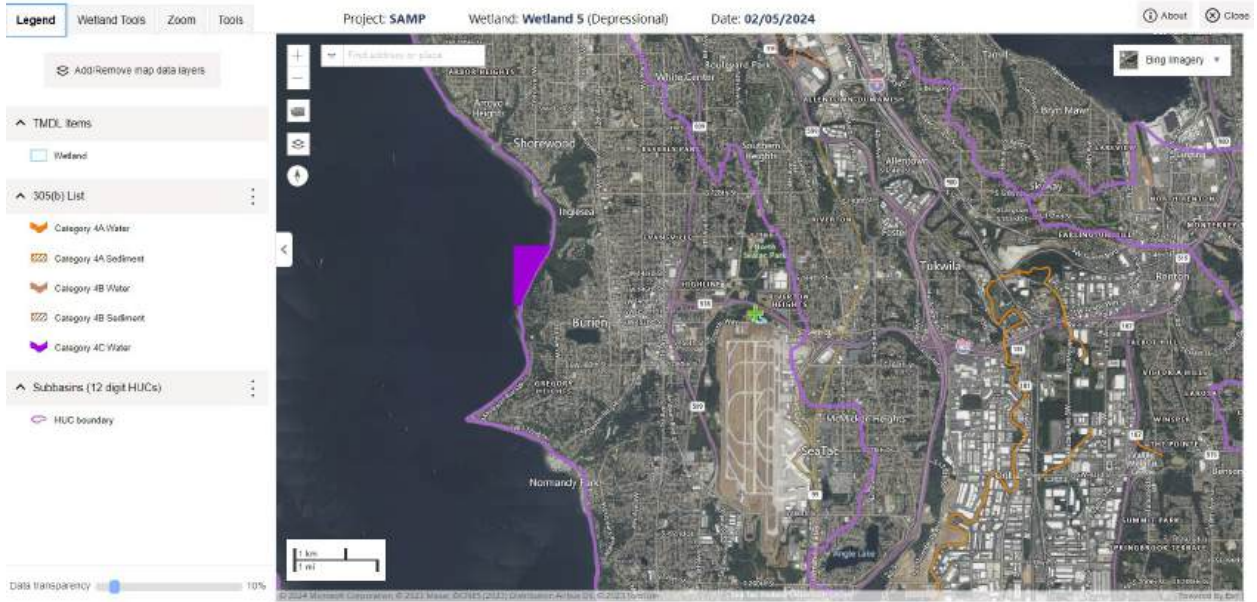
**Final Category: Not
Applicable**











Wetland name or number: Wetland 6

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 6 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category II]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	M	H	L	
Value	H	H	H	Total
Score Based on Ratings	7	8	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 6

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	<input type="text"/>
Hydroperiods	D 1.4, H 1.2	<input type="text"/>
Location of outlet <i>(can be added to map of hydroperiods)</i>	D 1.1, D 4.1	<input type="text"/>
Boundary of area within 150 ft of the wetland <i>(can be added to another figure)</i>	D 2.2, D 5.2	<input type="text"/>
Map of the contributing basin	D 4.3, D 5.3	<input type="text"/>
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	<input type="text"/>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	<input type="text"/>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	<input type="text"/>

Wetland name or number: Wetland 6

DEPRESSIONAL AND FLATS WETLANDS

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

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 <u>What are the characteristics of surface water outflows from the wetland?</u>		
Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 2
D 1.2 <u>Is the soil 2 in. below the surface a true clay or organic soil?</u>		
Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0
D 1.3 <u>What are the characteristics and distribution of persistent plants?</u>		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5
D 1.4 <u>What are the characteristics of seasonal ponding or inundation in the wetland area?</u>		
Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 2
Total for D 1:		9

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?		
D 2.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.2 <u>Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.3 <u>Are there septic systems within 250ft of the wetland?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.4 <u>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</u>		
Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 6**D 2.5** What are the other sources of pollutants coming into the wetland?

Particulates from airplane exhaust

Total for D 2:**2****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0 Is the water quality improvement provided by the site valuable to society?****D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation**D 4.0 Does the site have the potential to reduce flooding and erosion?****D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 2**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 3

Wetland name or number: Wetland 6

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 3
Total for D 4:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 6

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland 6

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 6

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 6

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 6

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 6

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

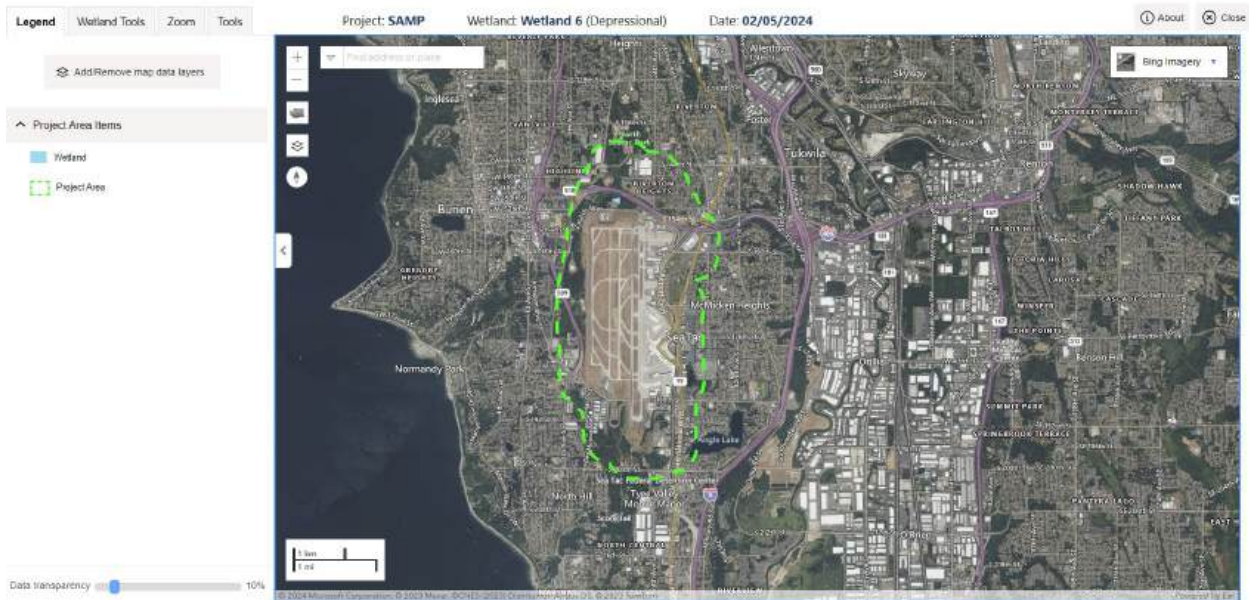
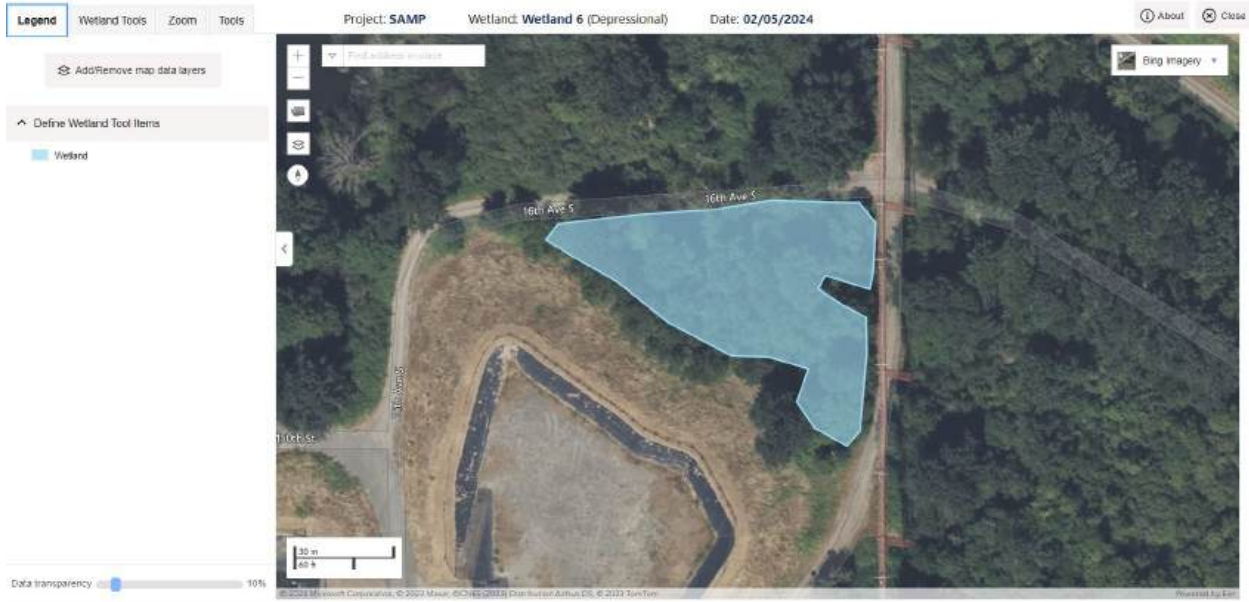
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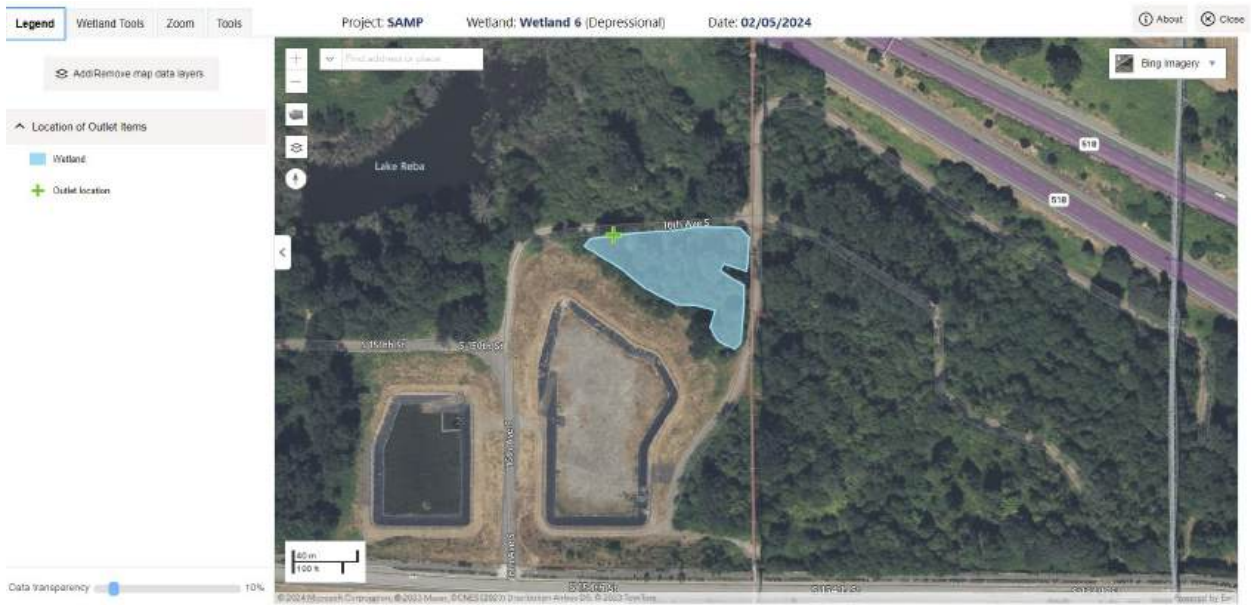
Wetland name or number: Wetland 6

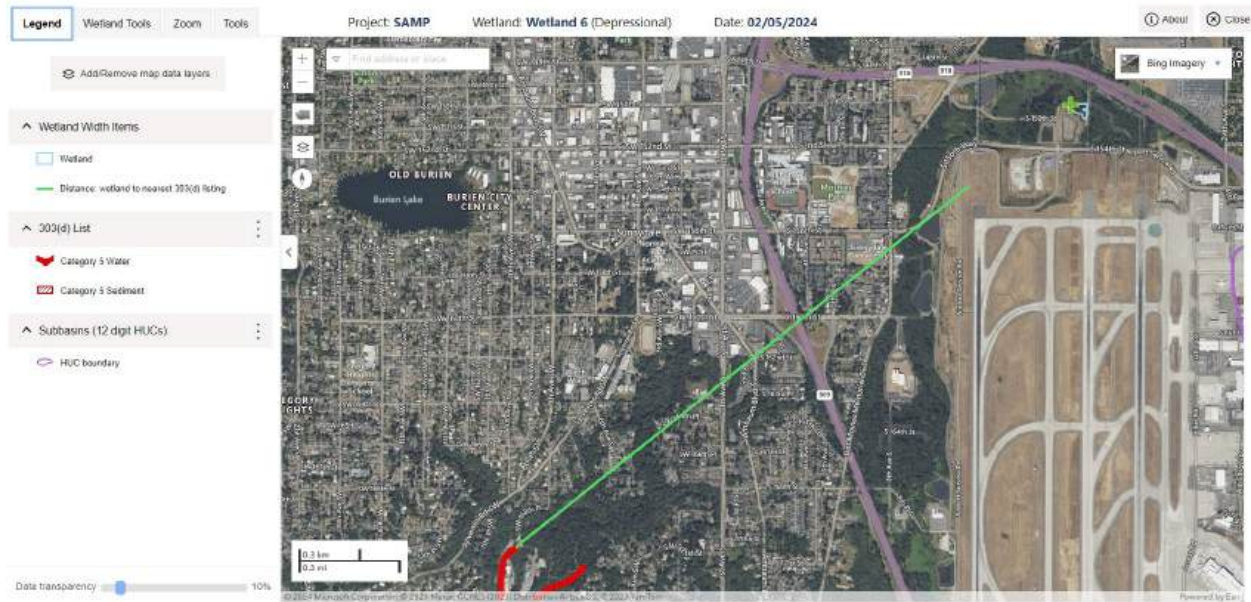
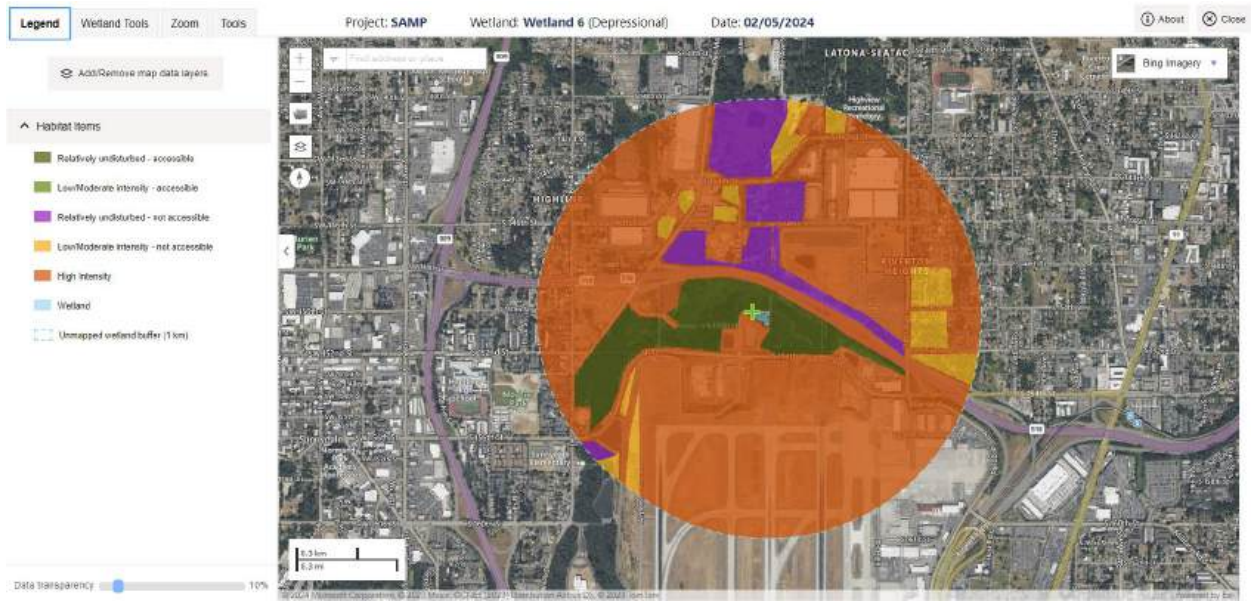
Category of wetland based on Special Characteristics

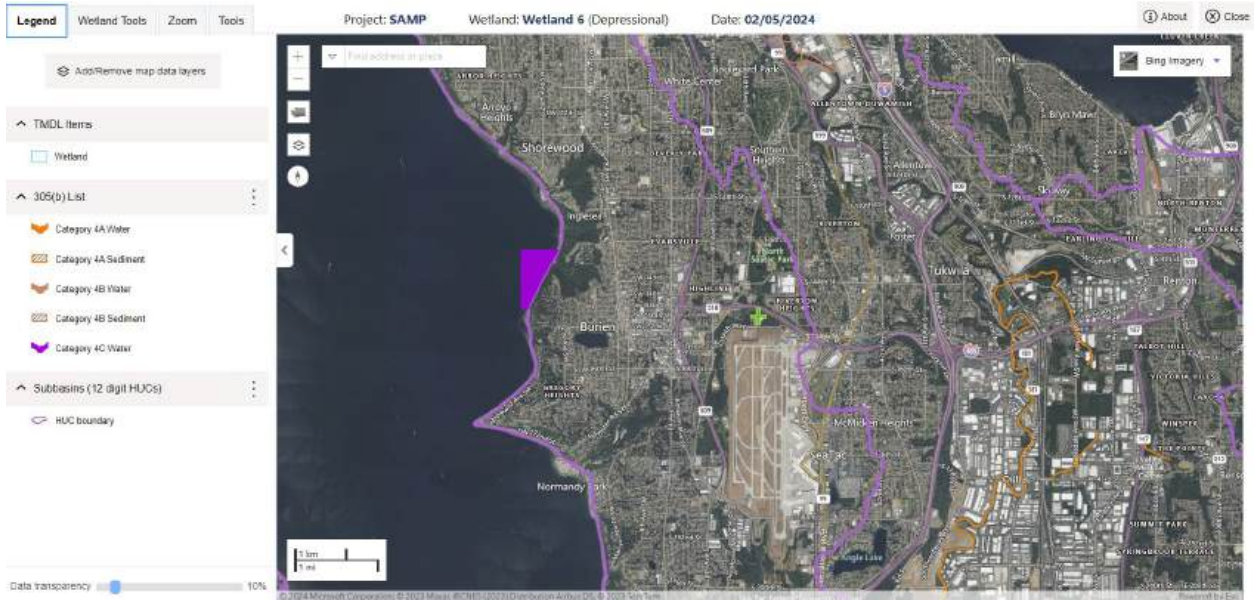
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland 7

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 7 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category II]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	M	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	7	8	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 7

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: Wetland 7

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**D 1.0 Does the site have the potential to improve water quality?****D 1.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 1

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 3

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0

Total for D 1: 4**Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?**D 2.1** Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 1

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 1

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 7**D 2.5** What are the other sources of pollutants coming into the wetland?

particulates from airplane exhaust

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0 Is the water quality improvement provided by the site valuable to society?****D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

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

D 4.0 Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 0**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 3

Wetland name or number: Wetland 7

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 5
Total for D 4:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 7

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 4**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland 7

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 3	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input checked="" type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 4	
Total for H 1: 14	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 7

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 7

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 7

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 7

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

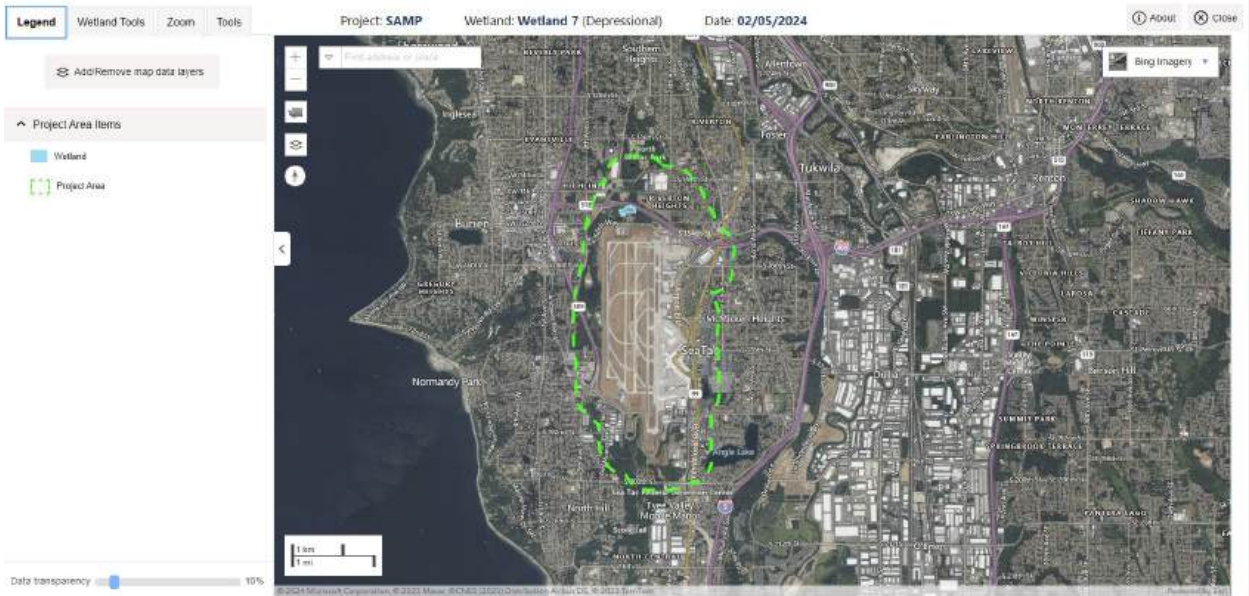
Result:

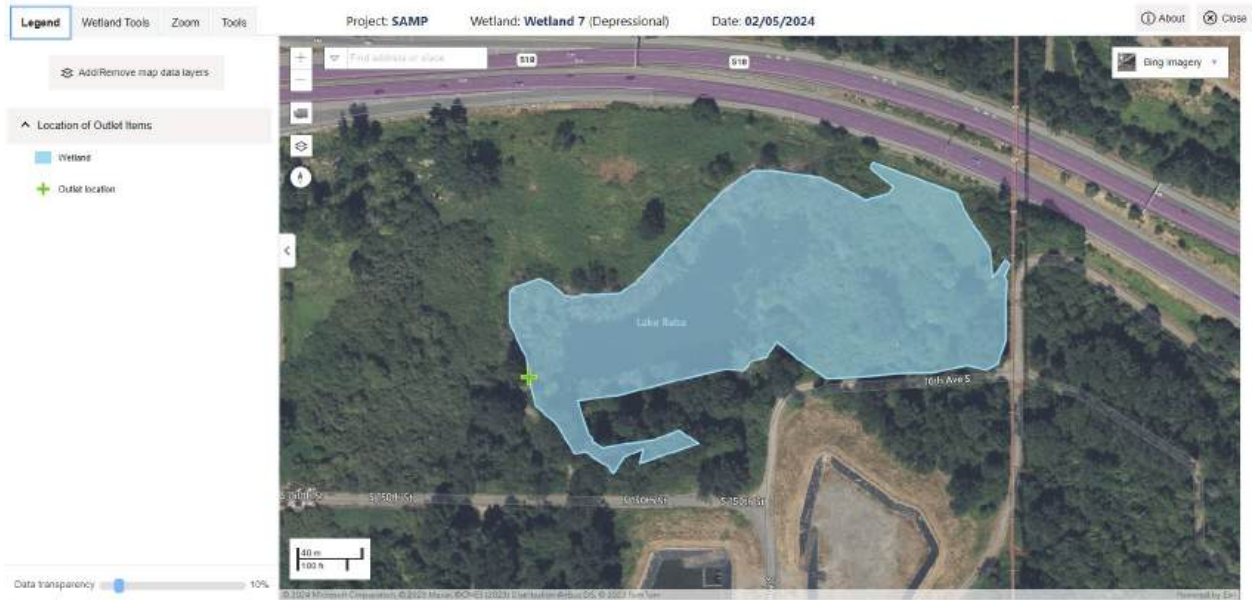
Wetland name or number: Wetland 7

Category of wetland based on Special Characteristics

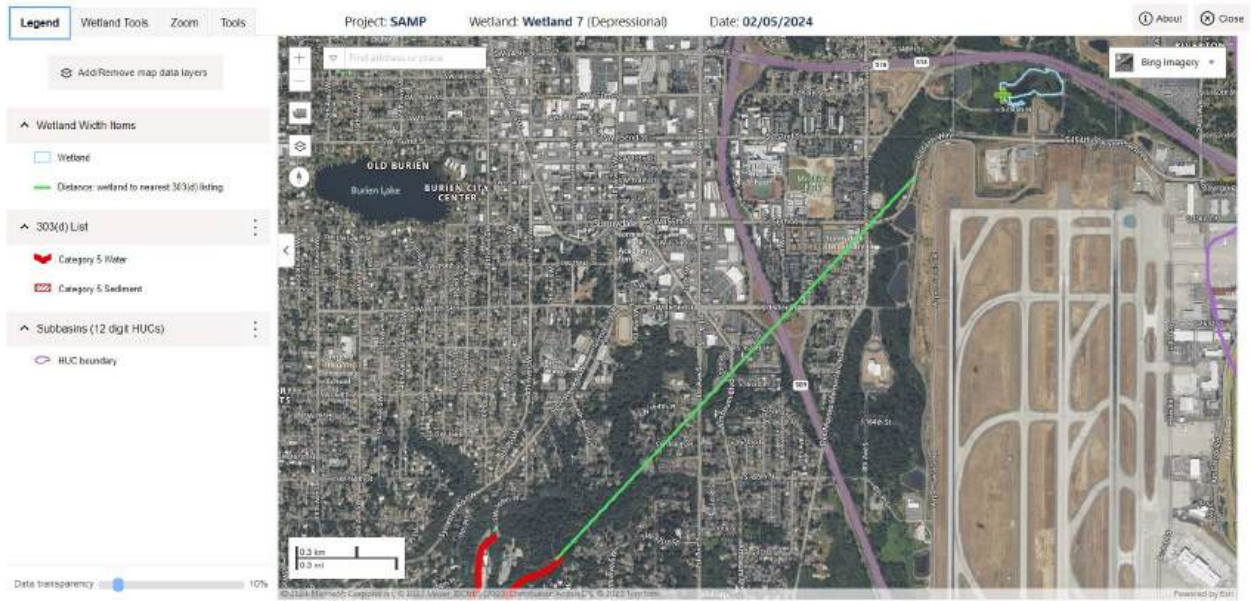
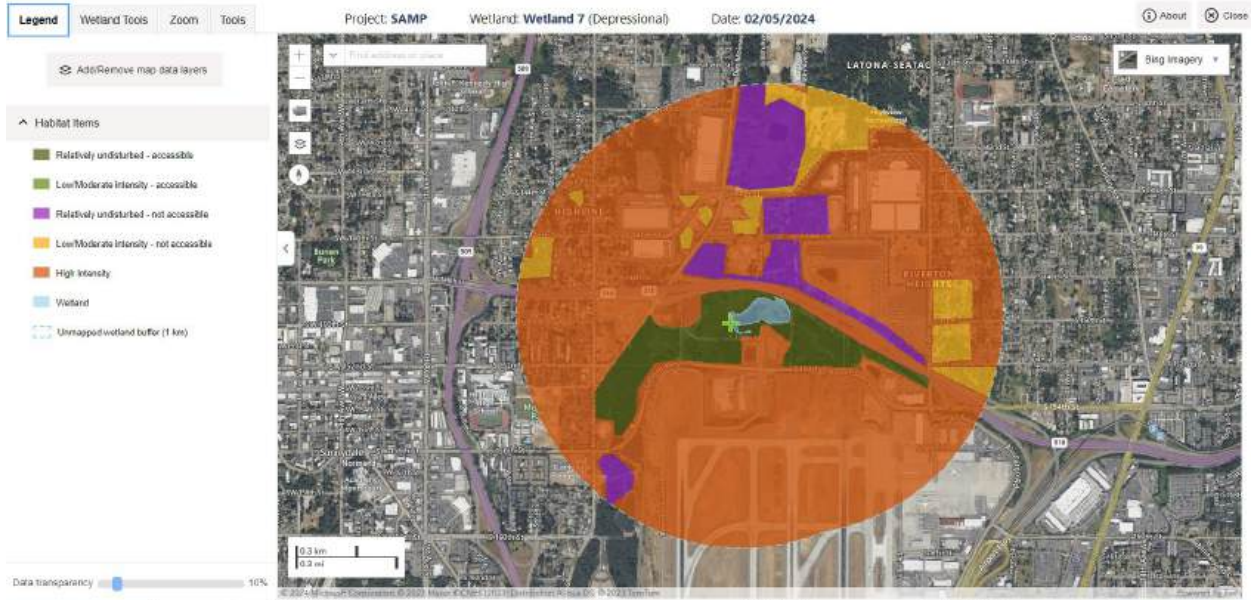
If you answered No for all types, enter "Not Applicable" on Summary Form

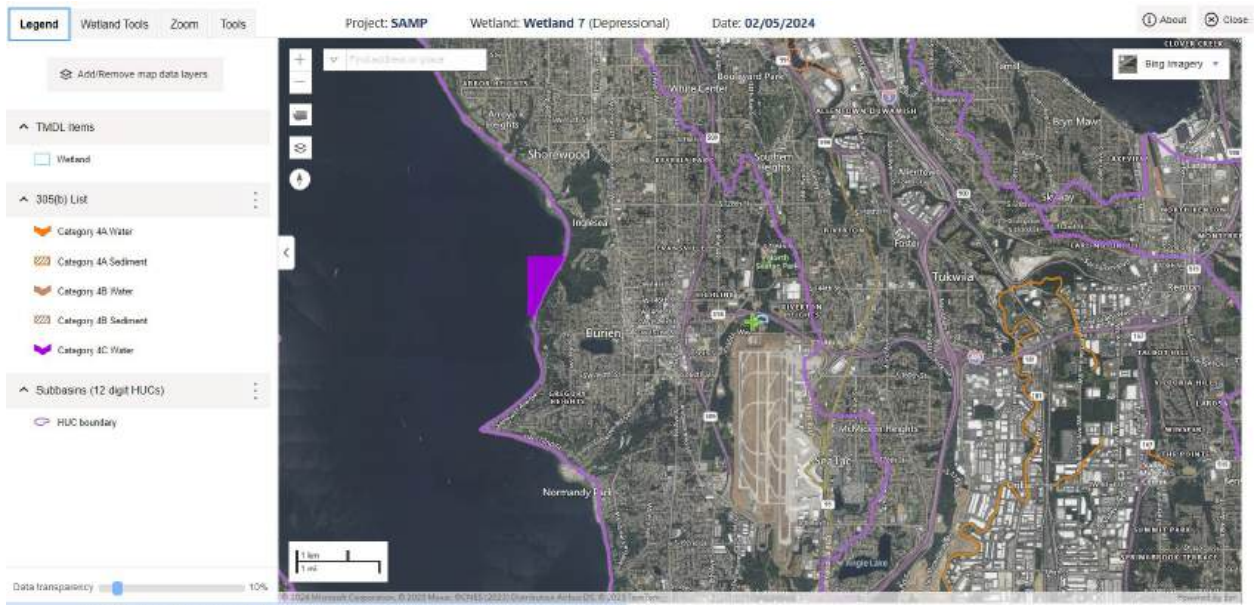
**Final Category: Not
Applicable**











Wetland name or number: Wetland 8

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 8 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category I] (based on functions) or special characteristics)

1. Category of wetland based on FUNCTIONS

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

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

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

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	H	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	8	7	23

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 8

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	<input type="text"/>
Hydroperiods	D 1.4, H 1.2	<input type="text"/>
Location of outlet <i>(can be added to map of hydroperiods)</i>	D 1.1, D 4.1	<input type="text"/>
Boundary of area within 150 ft of the wetland <i>(can be added to another figure)</i>	D 2.2, D 5.2	<input type="text"/>
Map of the contributing basin	D 4.3, D 5.3	<input type="text"/>
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	<input type="text"/>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	<input type="text"/>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	<input type="text"/>

Wetland name or number: Wetland 8

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 <u>What are the characteristics of surface water outflows from the wetland?</u>		
Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 2
D 1.2 <u>Is the soil 2 in. below the surface a true clay or organic soil?</u>		
Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0
D 1.3 <u>What are the characteristics and distribution of persistent plants?</u>		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5
D 1.4 <u>What are the characteristics of seasonal ponding or inundation in the wetland area?</u>		
Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0
Total for D 1:		7

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?		
D 2.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.2 <u>Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.3 <u>Are there septic systems within 250ft of the wetland?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.4 <u>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</u>		
Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 8**D 2.5** What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from overhead aircraft

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0 Is the water quality improvement provided by the site valuable to society?****D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

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

D 4.0 Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 2**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 7

Wetland name or number: Wetland 8

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 0
Total for D 4:		9

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 8

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 4

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 3

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 2

Wetland name or number: Wetland 8

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 3	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 15	

Rating of Site Potential

15-18 = H 7-14 = M 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 8

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 8

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 8

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 8

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

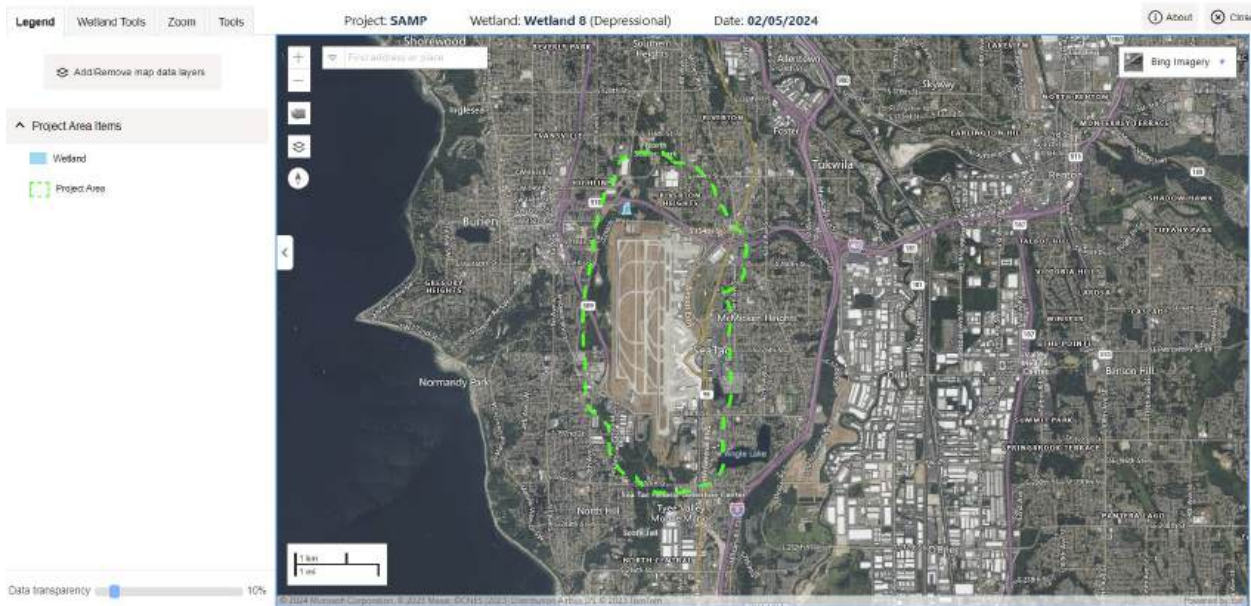
Result:

Wetland name or number: Wetland 8

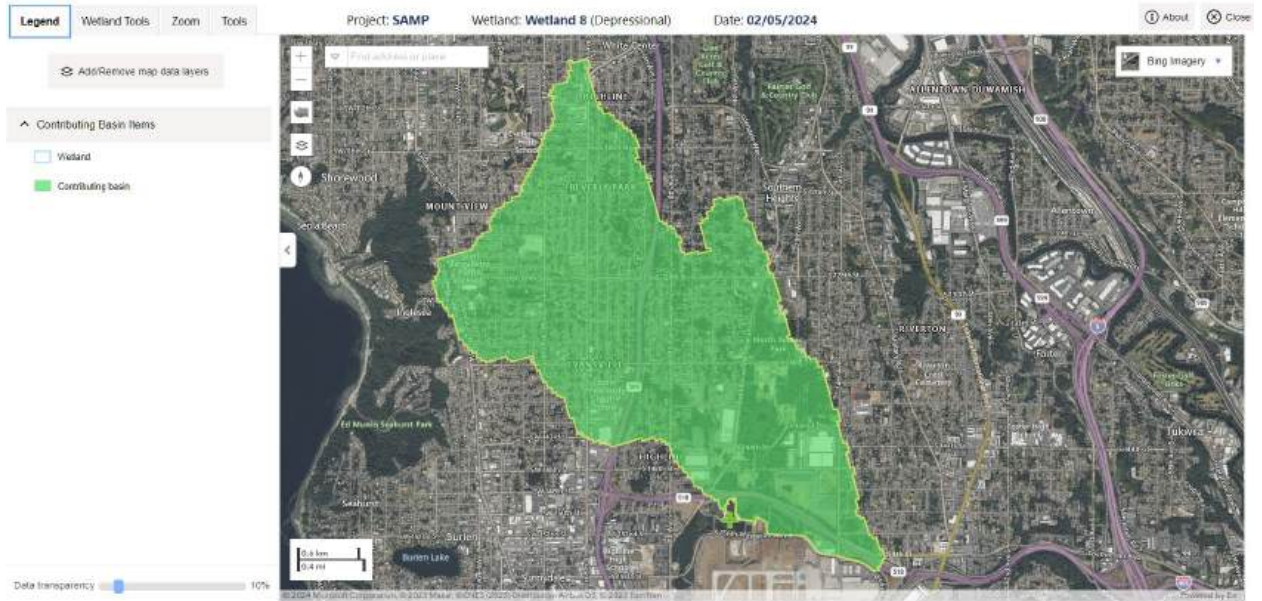
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**







Wetland name or number: Wetland 9

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 9 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	L	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 9

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	<input type="text"/>
Hydroperiods	D 1.4, H 1.2	<input type="text"/>
Location of outlet <i>(can be added to map of hydroperiods)</i>	D 1.1, D 4.1	<input type="text"/>
Boundary of area within 150 ft of the wetland <i>(can be added to another figure)</i>	D 2.2, D 5.2	<input type="text"/>
Map of the contributing basin	D 4.3, D 5.3	<input type="text"/>
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	<input type="text"/>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	<input type="text"/>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	<input type="text"/>

Wetland name or number: Wetland 9

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 <u>What are the characteristics of surface water outflows from the wetland?</u>		
Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 1
D 1.2 <u>Is the soil 2 in. below the surface a true clay or organic soil?</u>		
Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0
D 1.3 <u>What are the characteristics and distribution of persistent plants?</u>		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5
D 1.4 <u>What are the characteristics of seasonal ponding or inundation in the wetland area?</u>		
Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 2
Total for D 1:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?		
D 2.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.2 <u>Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.3 <u>Are there septic systems within 250ft of the wetland?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.4 <u>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</u>		
Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 9**D 2.5** What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from overhead aircraft

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0 Is the water quality improvement provided by the site valuable to society?****D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

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

D 4.0 Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 0**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 3

Wetland name or number: Wetland 9

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 0
Total for D 4:		3

Rating of Site Potential

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

D 5.0 <u>Does the landscape have the potential to support hydrologic functions of the site?</u>		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 <u>Are the hydrologic functions provided by the site valuable to society?</u>		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 9

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 4**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 2

Wetland name or number: Wetland 9

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 3	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 14	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 9

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 9

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 9

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 9

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

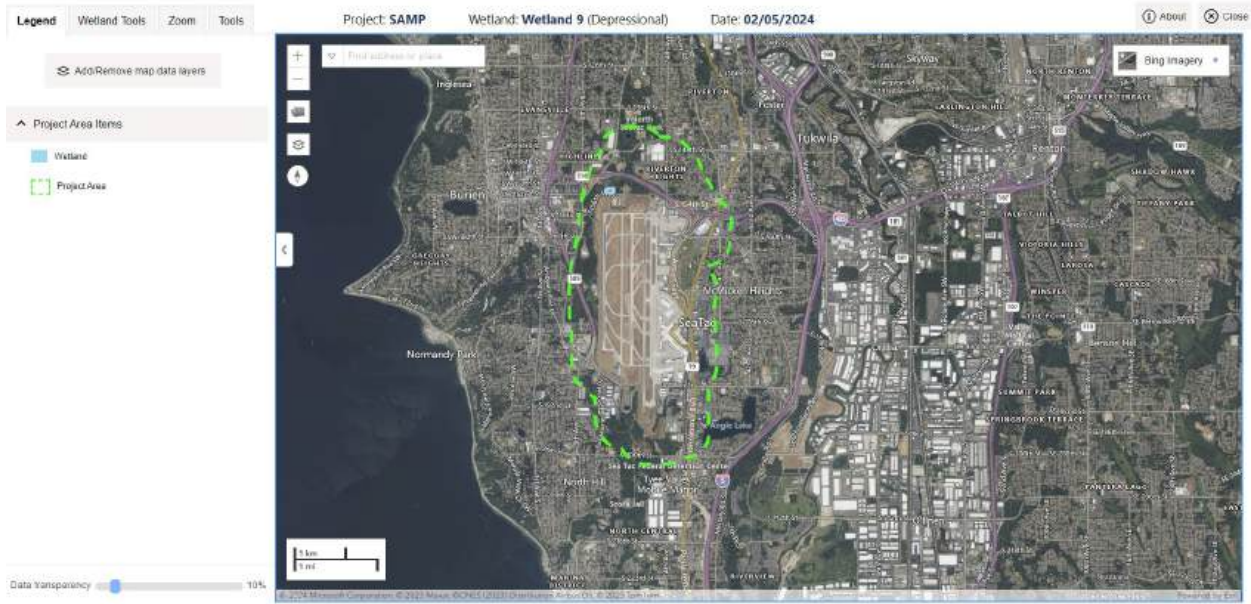
Result:

Wetland name or number: Wetland 9

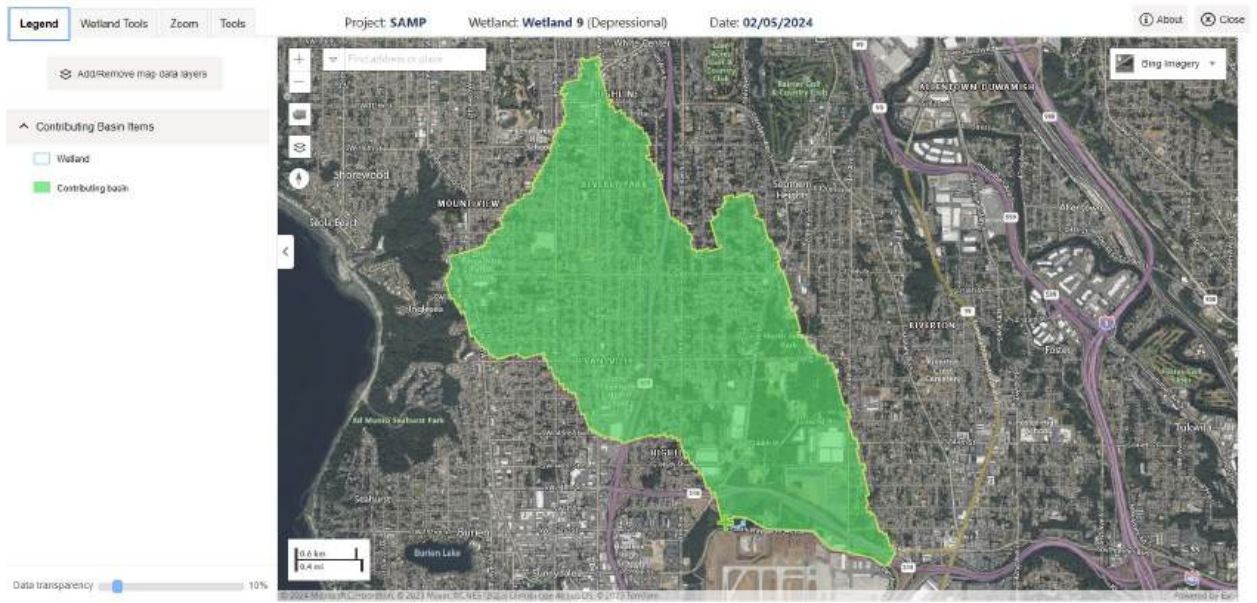
Category of wetland based on Special Characteristics

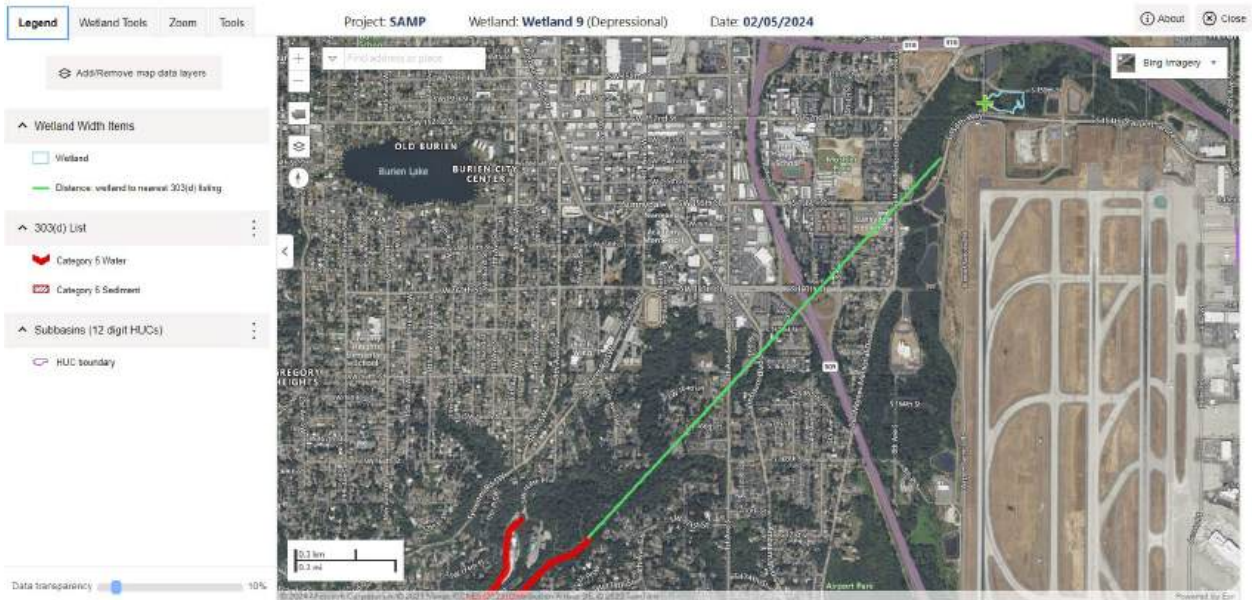
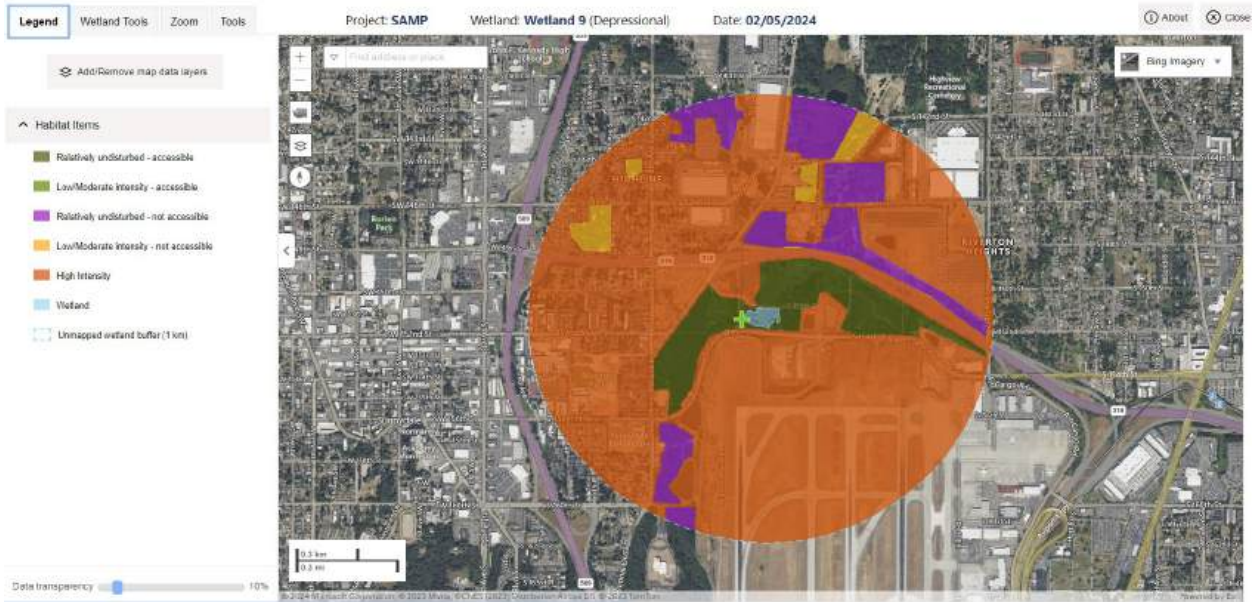
If you answered No for all types, enter "Not Applicable" on Summary Form

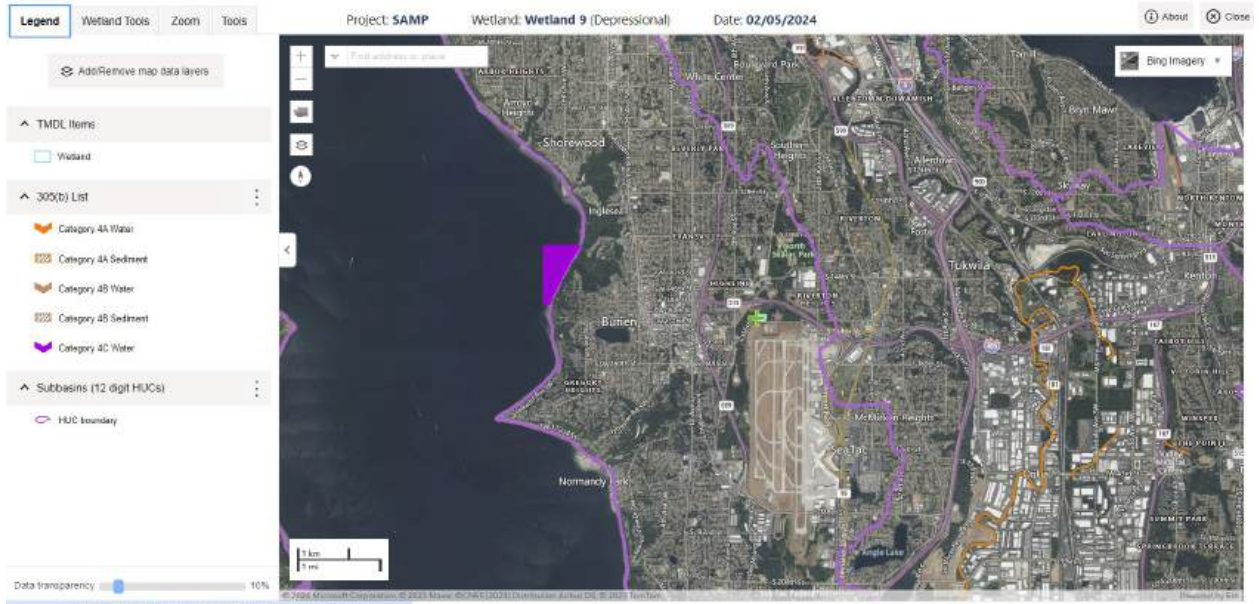
**Final Category: Not
Applicable**











Wetland name or number: Wetland 10

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 10 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category III]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	7	6	6	19

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 10

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: Wetland 10

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**D 1.0 Does the site have the potential to improve water quality?****D 1.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 3

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0

Total for D 1: 8**Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?**D 2.1** Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 0

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 0

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 10**D 2.5** What are the other sources of pollutants coming into the wetland?

Particulates from airplanes

Total for D 2:**1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value**

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation**D 4.0** Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 4**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 0

Wetland name or number: Wetland 10

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 5
Total for D 4:		9

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 0
Total for D 5:		0

Rating of Landscape Potential

[] 3 = H [] 1-2 = M [X] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 10

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 2

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland 10

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 9	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 10

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 10

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 10

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 10

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

Result:

Wetland name or number: Wetland 10

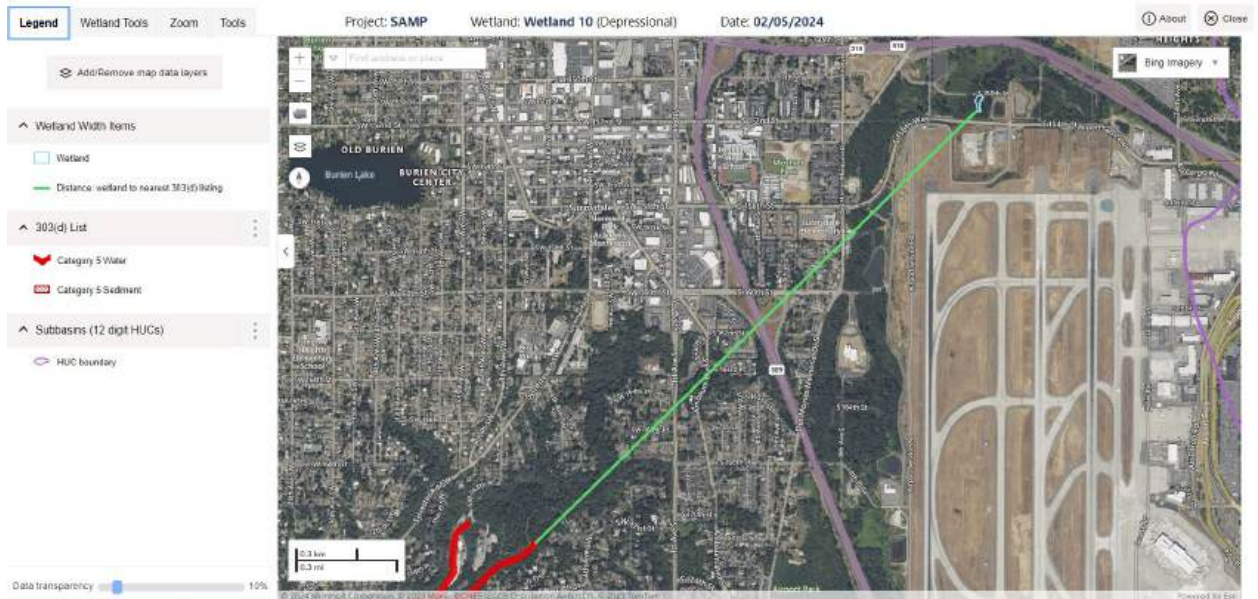
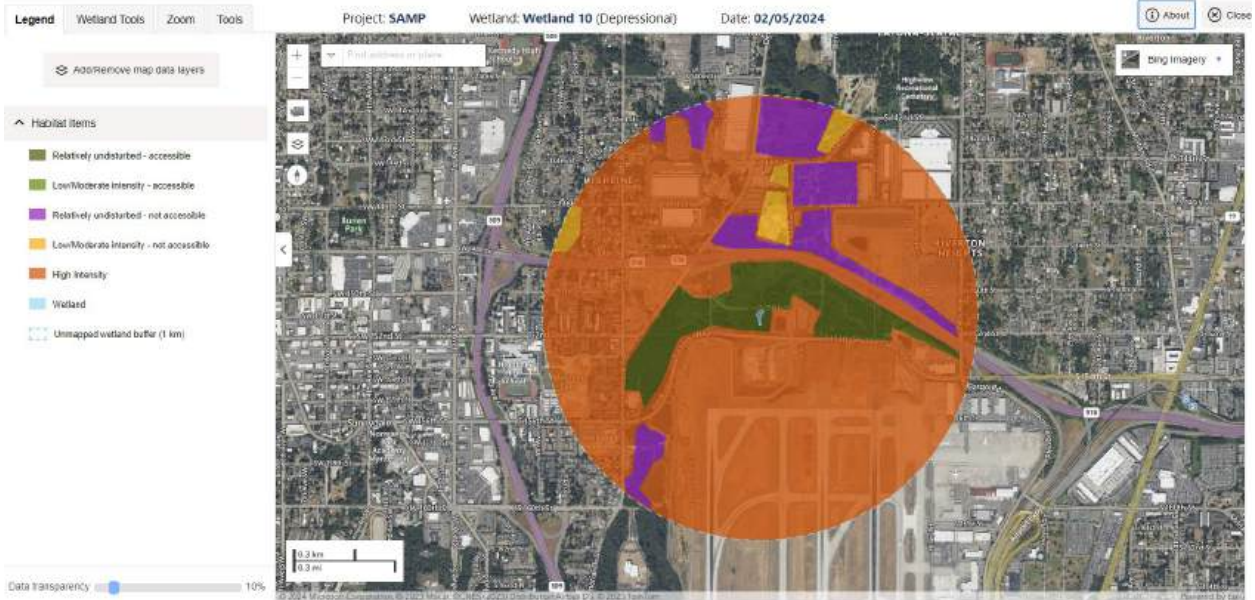
Category of wetland based on Special Characteristics

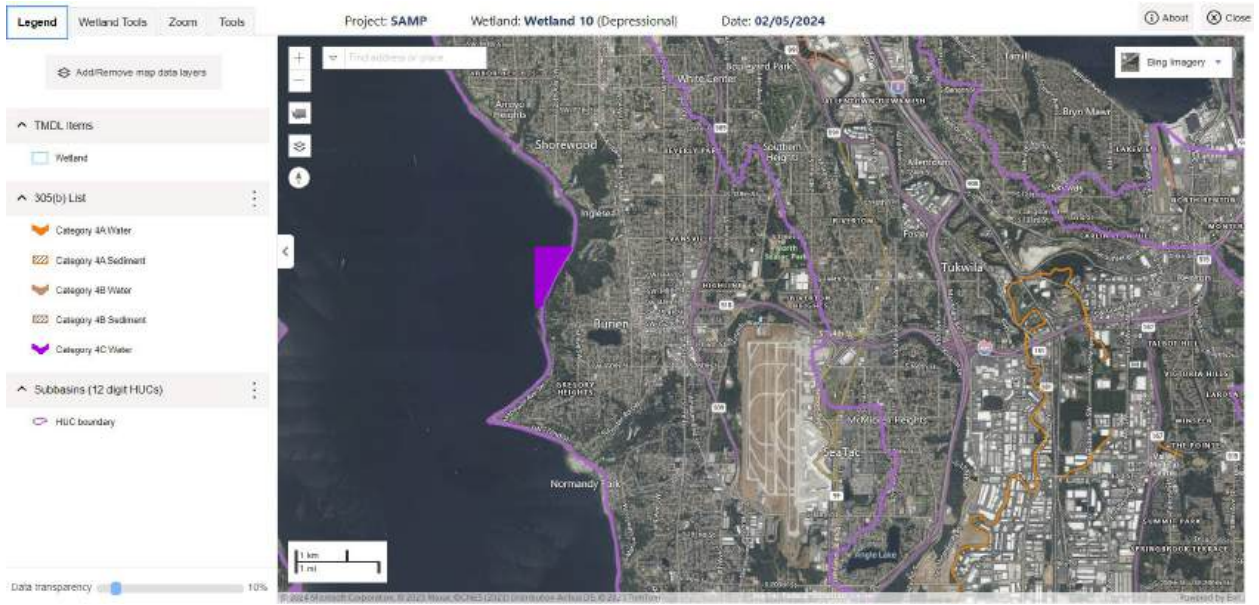
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland 11

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 11 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category III]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	L	
Landscape Potential	H	M	L	
Value	H	H	M	Total
Score Based on Ratings	8	7	4	19

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 11

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: Wetland 11

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 <u>What are the characteristics of surface water outflows from the wetland?</u>		
Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 3
D 1.2 <u>Is the soil 2 in. below the surface a true clay or organic soil?</u>		
Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0
D 1.3 <u>What are the characteristics and distribution of persistent plants?</u>		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 0
D 1.4 <u>What are the characteristics of seasonal ponding or inundation in the wetland area?</u>		
Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 4
Total for D 1:		7

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?		
D 2.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.2 <u>Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.3 <u>Are there septic systems within 250ft of the wetland?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.4 <u>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</u>		
Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland 11**D 2.5** What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from overhead aircraft

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

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

D 4.0 Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 4**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 3

Wetland name or number: Wetland 11

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 3
Total for D 4:		10

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 <u>Does the landscape have the potential to support hydrologic functions of the site?</u>		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 0
Total for D 5:		2

Rating of Landscape Potential

[] 3 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 <u>Are the hydrologic functions provided by the site valuable to society?</u>		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 11

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 0**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
<5 species	points = 0

Score: 0

Wetland name or number: Wetland 11

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 0	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score:	
Total for H 1: 1	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 11

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 1
Total for H 3:		1

Rating of Value

[] 2 = H [X] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 11

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 11

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 11

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

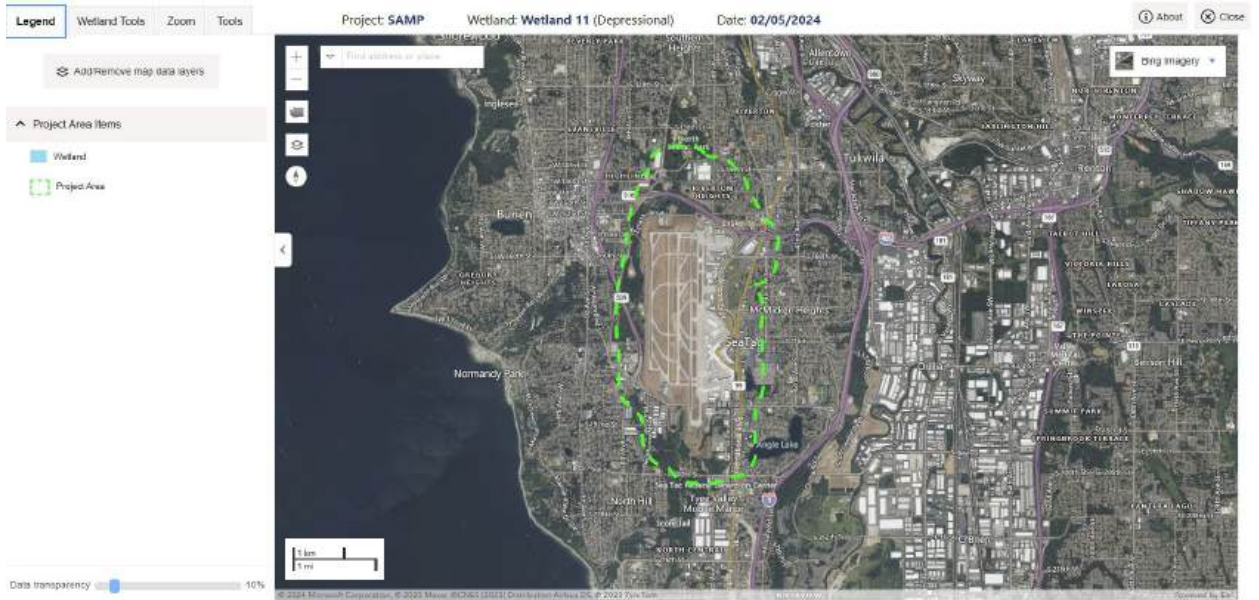
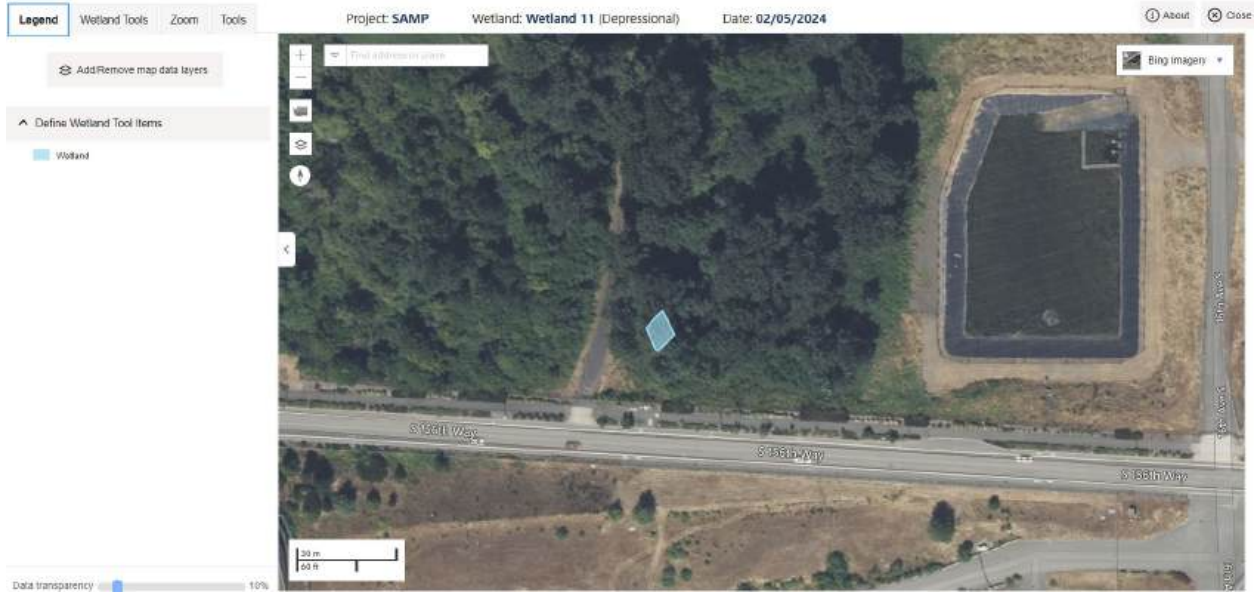
Result:

Wetland name or number: Wetland 11

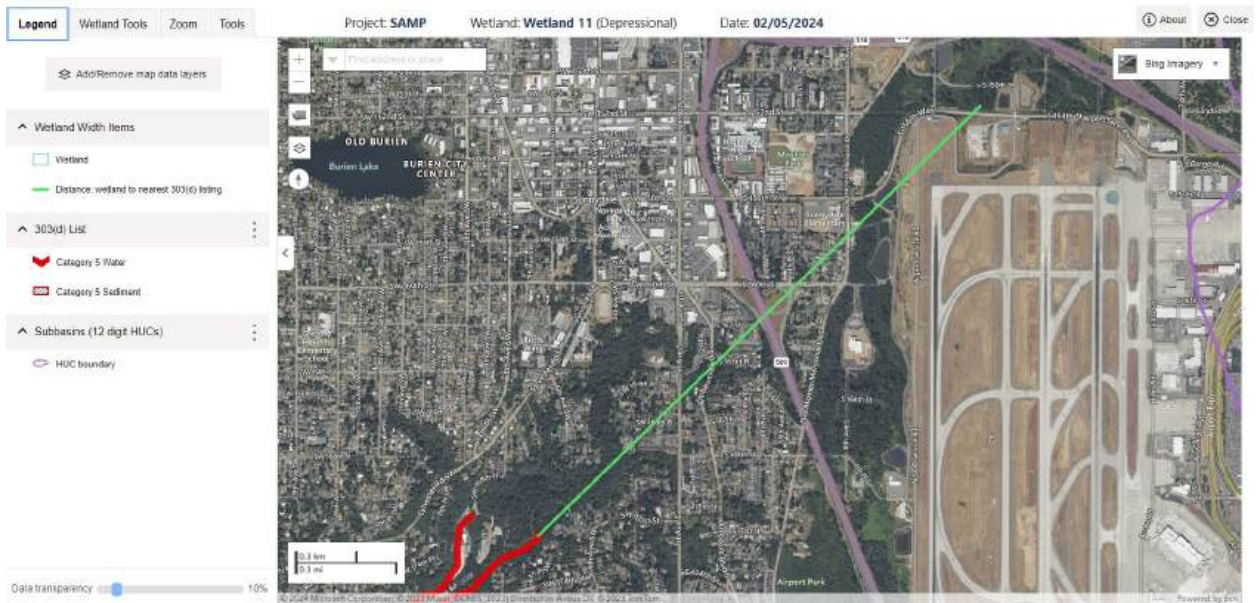
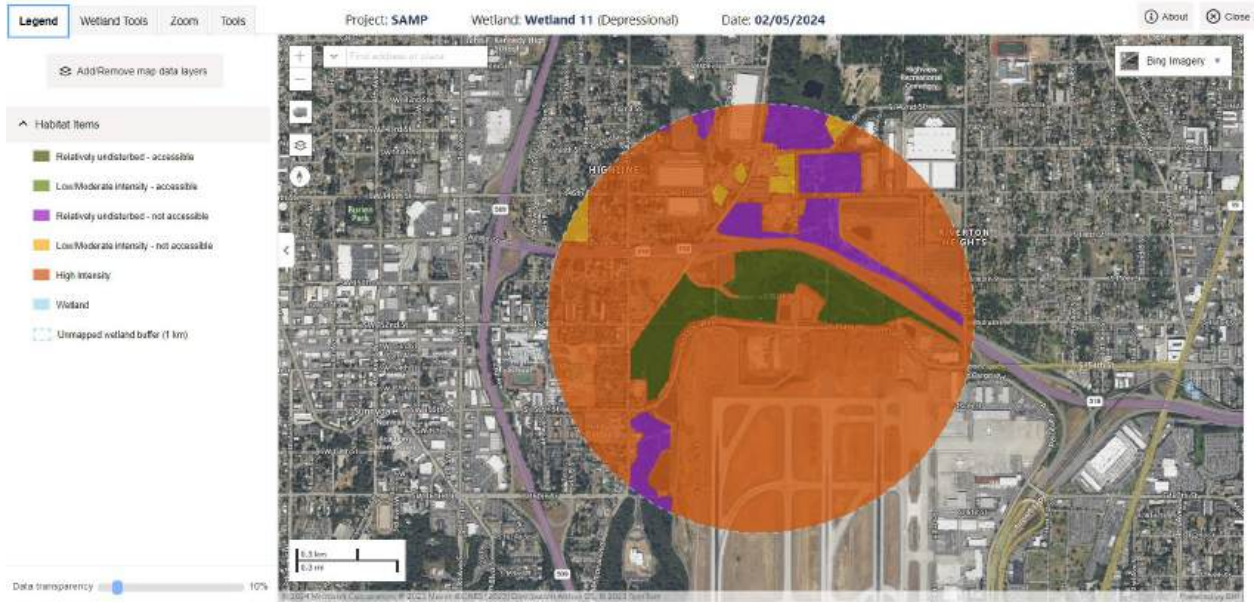
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**







Wetland name or number: Wetland 39

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 39 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	M	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	6	5	6	17

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 39

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland 39

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 2

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **4****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 1

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

Particulates from planes at airport

Total for S 2: **2****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 39

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

 1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 39

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland 39

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 2**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 0**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland 39

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 39

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 39

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

Result:

Wetland name or number: Wetland 39

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 39

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

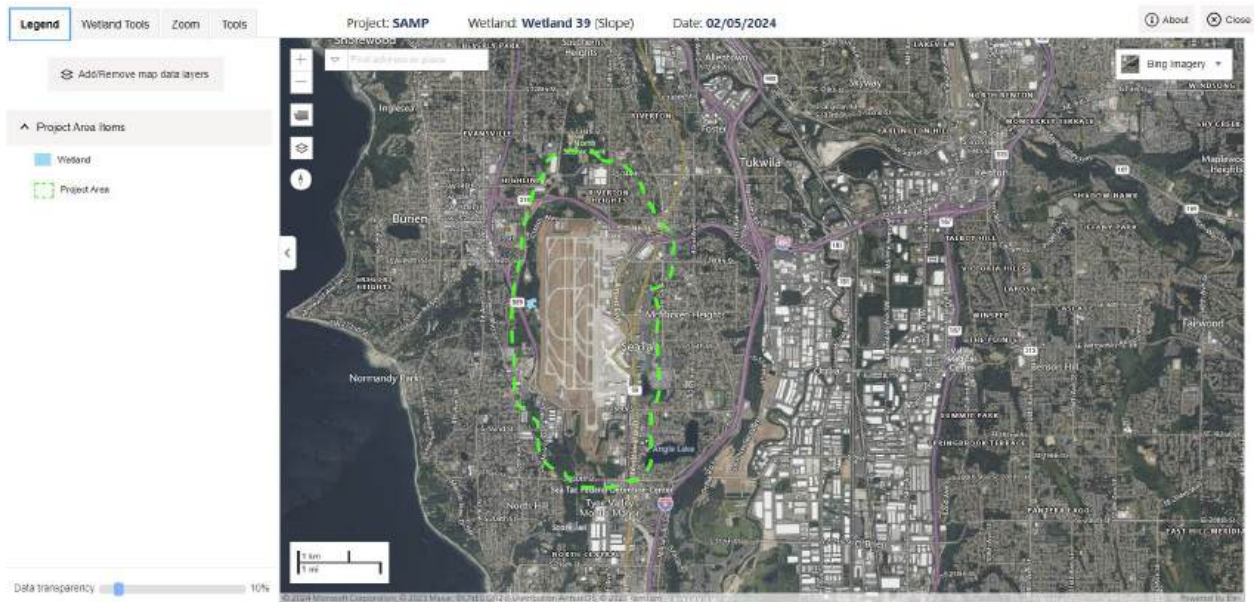
Result:

Wetland name or number: Wetland 39

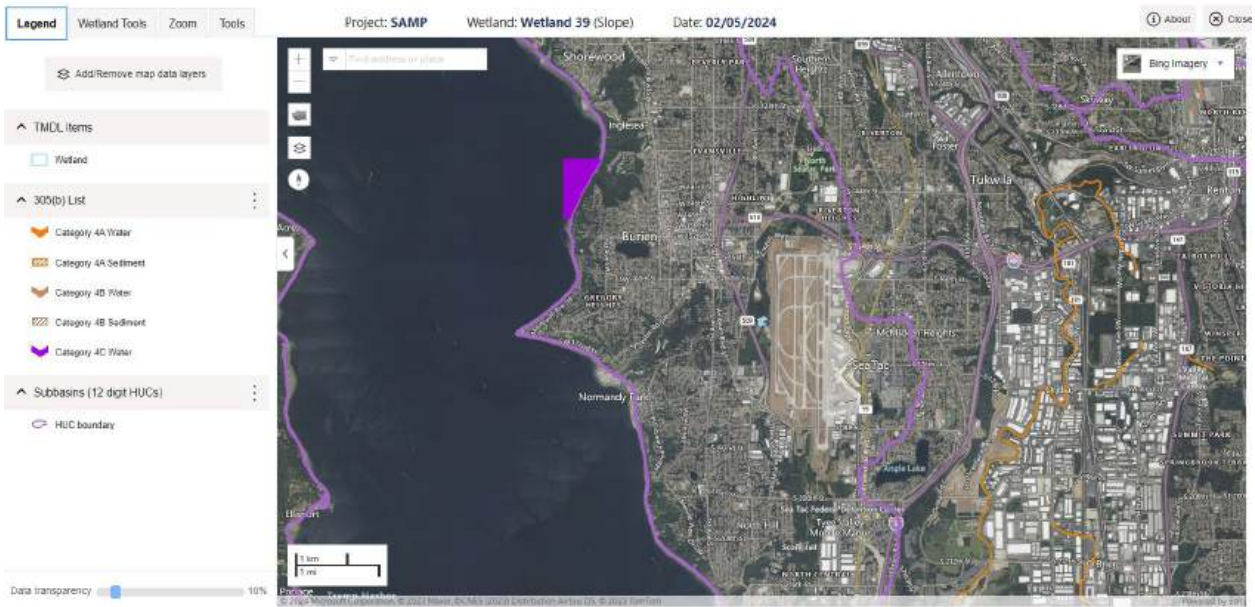
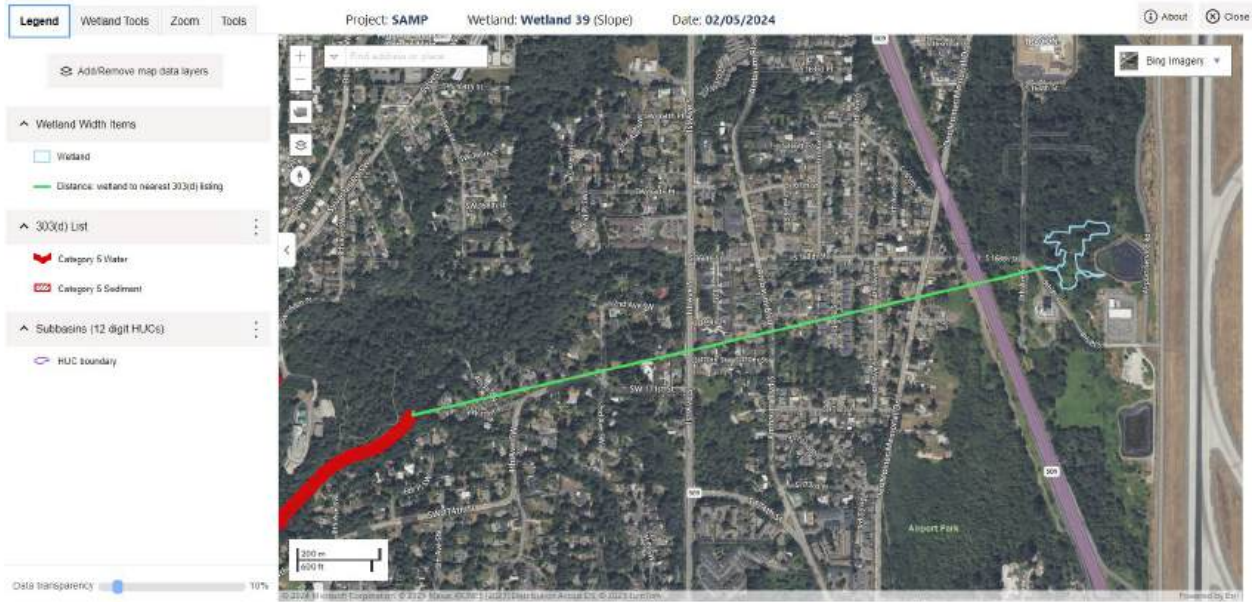
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**







Wetland name or number: Wetland 44

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 44 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	8	6	22

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 44

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: Wetland 44

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**R 1.0 Does the site have the potential to improve water quality?****R 1.1** What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 0

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 8

Total for R 1: **8****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?**R 2.1** Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 1

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for R 2: **5**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland 44

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		3

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

<p><u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u></p> <p>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</p>		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 4
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		11

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland 44

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

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for R 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 44

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland 44

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input checked="" type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 9	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 44

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 44

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 44

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 44

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

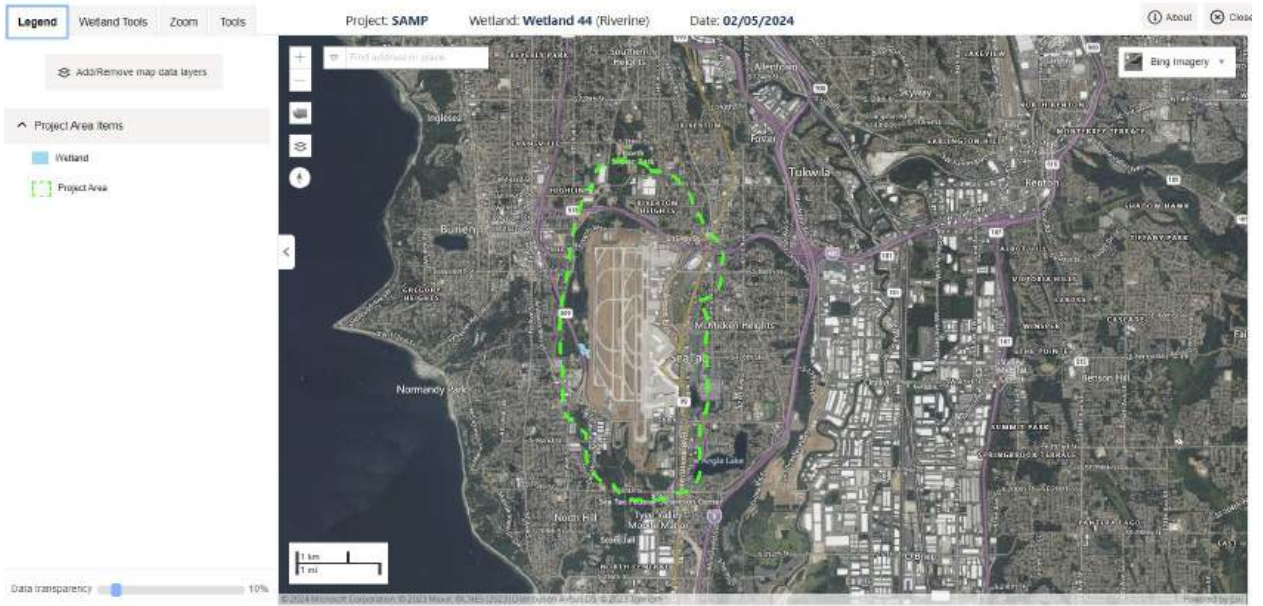
Result:

Wetland name or number: Wetland 44

Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

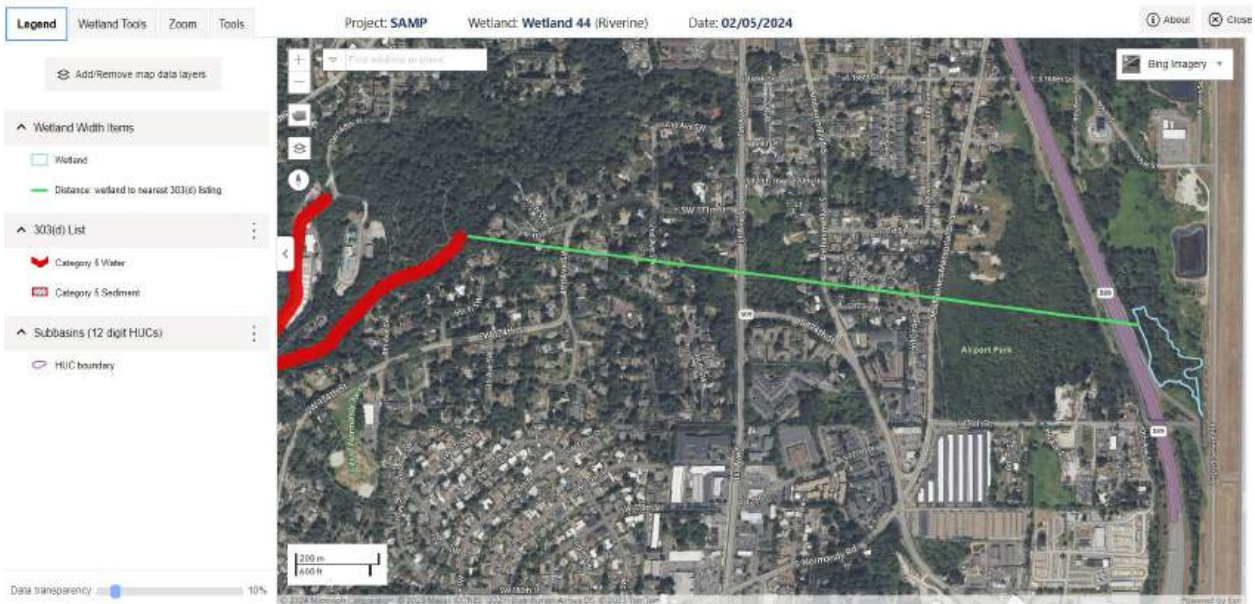
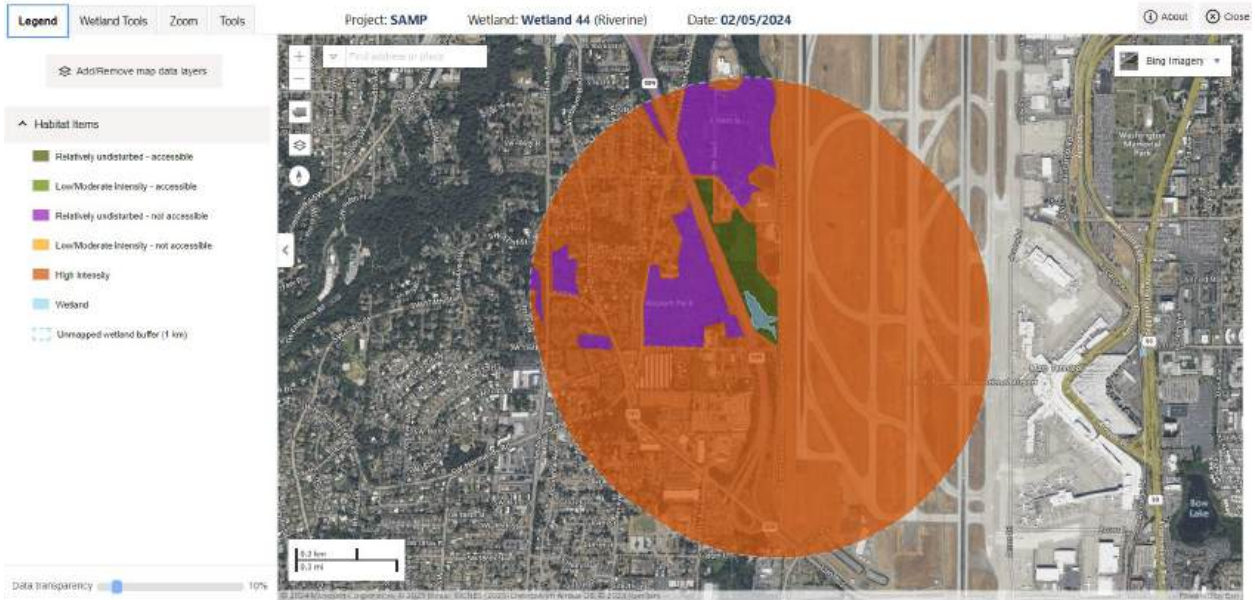
**Final Category: Not
Applicable**

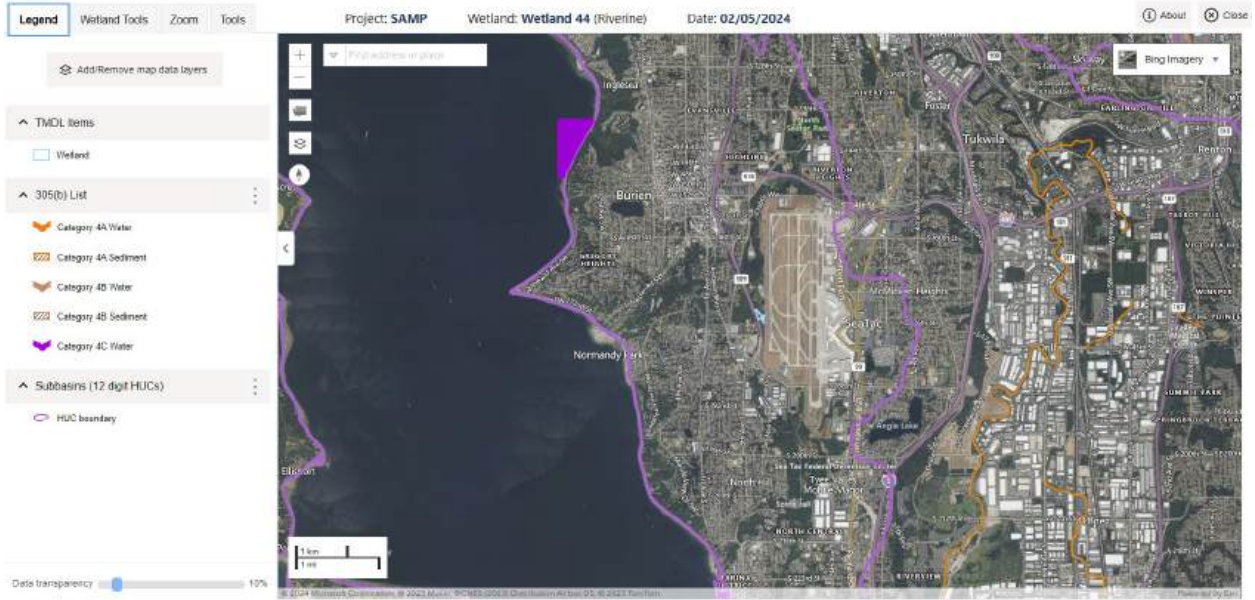












Wetland name or number: Wetland 52a

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 52a Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	M	M	L	
Value	H	H	H	Total
Score Based on Ratings	7	7	6	20

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 52a

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland 52a

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 0

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 6

Total for S 1: **6****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 1

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for S 2: **2****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52a

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 1
Total for S 4:		1

Rating of Site Potential

[X] 1 = M [] 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 1
Total for S 5:		1

Rating of Landscape Potential

[X] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52a

S 6.0 Are the hydrologic functions provided by the site valuable to society?	
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>	
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1
There are no problems with flooding downstream of the wetland	points = 0
	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>	
Yes	points = 2
No	points = 0
	Score: 2
Total for S 6:	
4	

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52a

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
 Emergent
 Scrub-shrub
 Forested
 Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
 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
 Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 3**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland 52a

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input checked="" type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 9	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 52a

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52a

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland 52a

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 52a

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

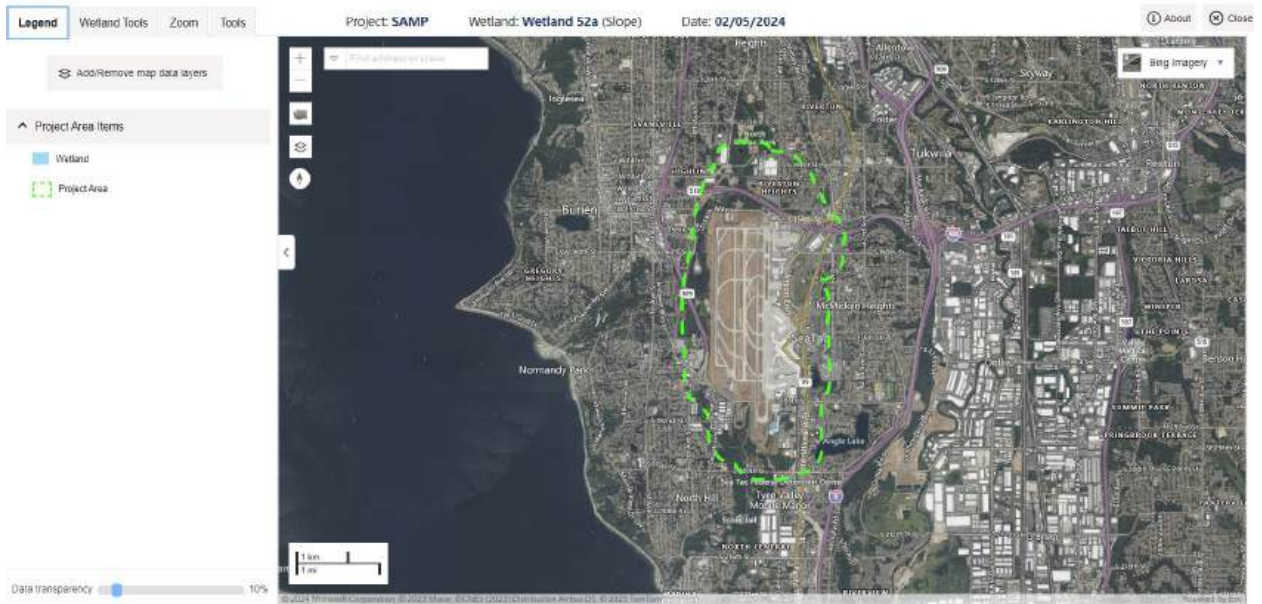
Result:

Wetland name or number: Wetland 52a

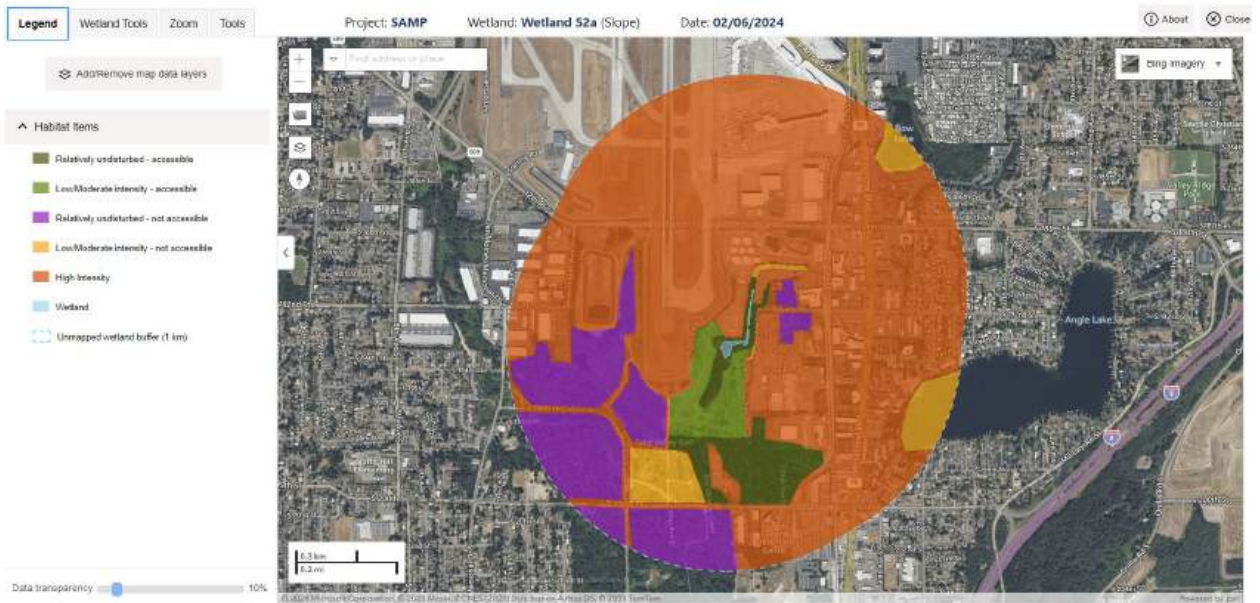
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland 52b

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 52b Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	M	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	6	5	6	17

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 52b

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland 52b

SLOPE WETLANDS

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

S 1.0 Does the site have the potential to improve water quality?

S 1.1 What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 0

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **2**

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?

S 2.1 Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for S 2: **1**

Rating of Landscape Potential

3-4 = H 1-2 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52b

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52b

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 6:		4

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland 52b

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
<5 species	points = 0

Score: 1

Wetland name or number: Wetland 52b

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 52b

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

4-6 = H 1-3 = M 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

2 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52b

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

Result:

Wetland name or number: Wetland 52b

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland 52b

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

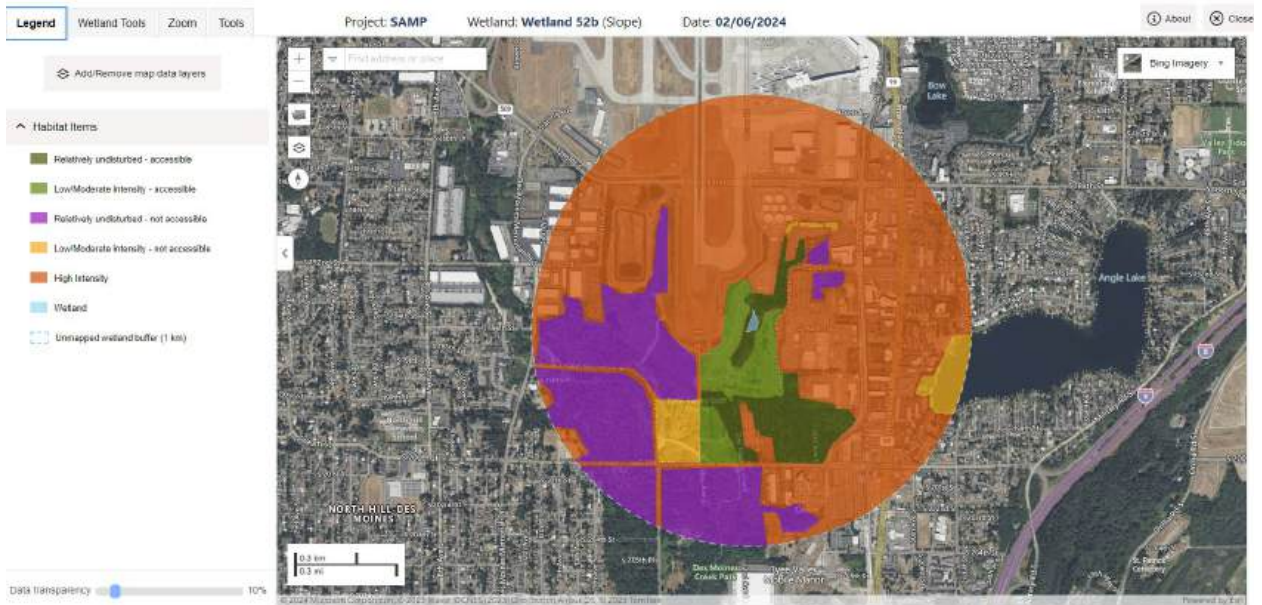
Result:

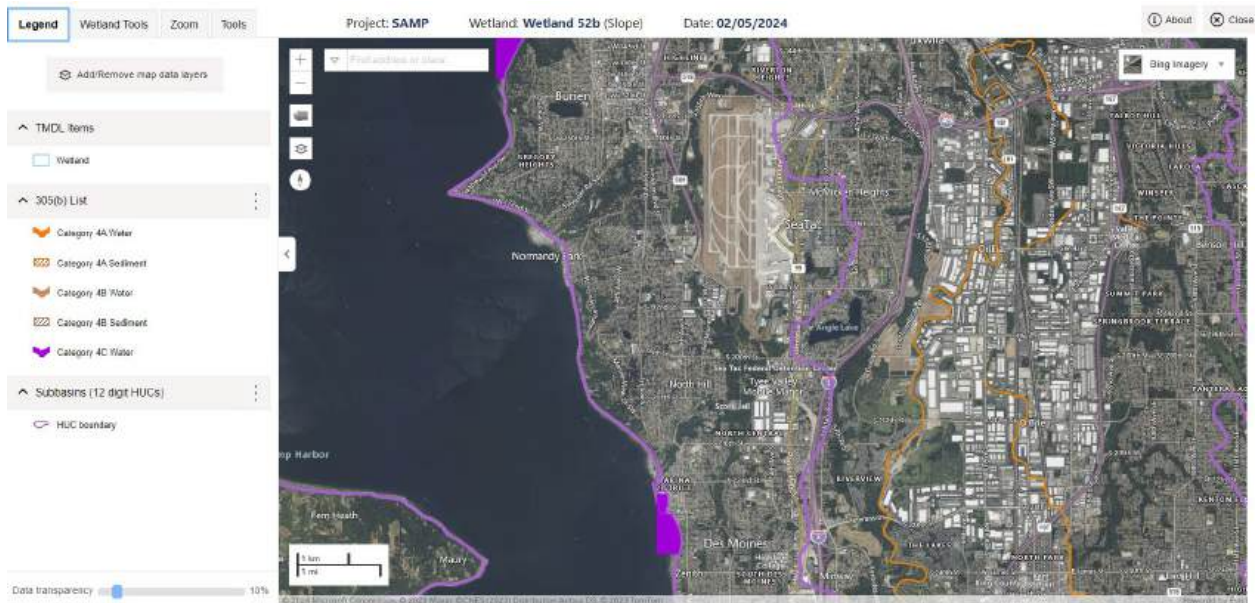
Wetland name or number: Wetland 52b

Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**







Wetland name or number: Wetland 52c

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland 52c Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category II]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	H	M	M	
Landscape Potential	H	M	L	
Value	H	H	H	Total
Score Based on Ratings	9	7	6	22

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland 52c

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: Wetland 52c

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**R 1.0 Does the site have the potential to improve water quality?****R 1.1** What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 4

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 8

Total for R 1: **12****Rating of Site Potential**

[X] 12-16 = H [] 6-11 = M [] 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?**R 2.1** Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for R 2: **4**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland 52c

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		4

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

<u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u>		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 2
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		9

Rating of Site Potential

 12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland 52c

R 5.0 Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1 <u>Is the stream or river adjacent to the wetland downcut?</u>		
Yes	points = 0	
No	points = 1	Score: 0
R 5.2 <u>Does the up-gradient watershed include a UGA or incorporated area?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 5.3 <u>Is the up-gradient stream or river controlled by dams?</u>		
Yes	points = 0	
No	points = 1	Score: 1
Total for R 5:		2

Rating of Landscape Potential

[] 3 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 6:		4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52c

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
<5 species	points = 0

Score: 1

Wetland name or number: Wetland 52c

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input checked="" type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 9	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland 52c

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland 52c

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

Result:

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result:

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

Result:

Wetland name or number: Wetland 52c

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result:

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result:

Wetland name or number: Wetland 52c

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result:

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result:

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

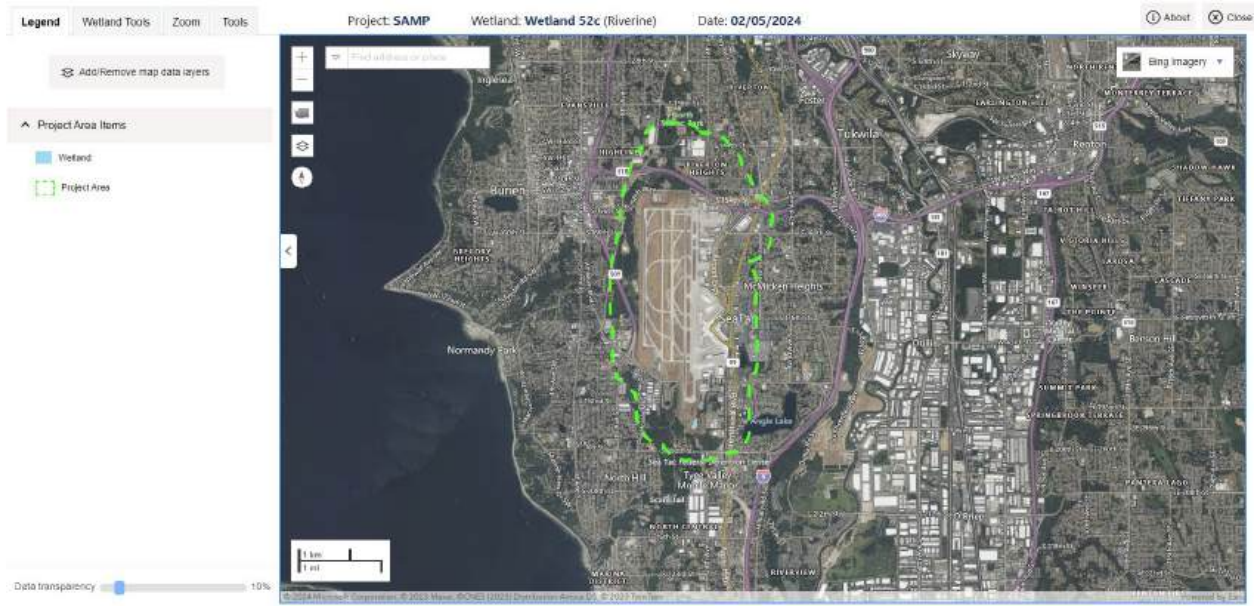
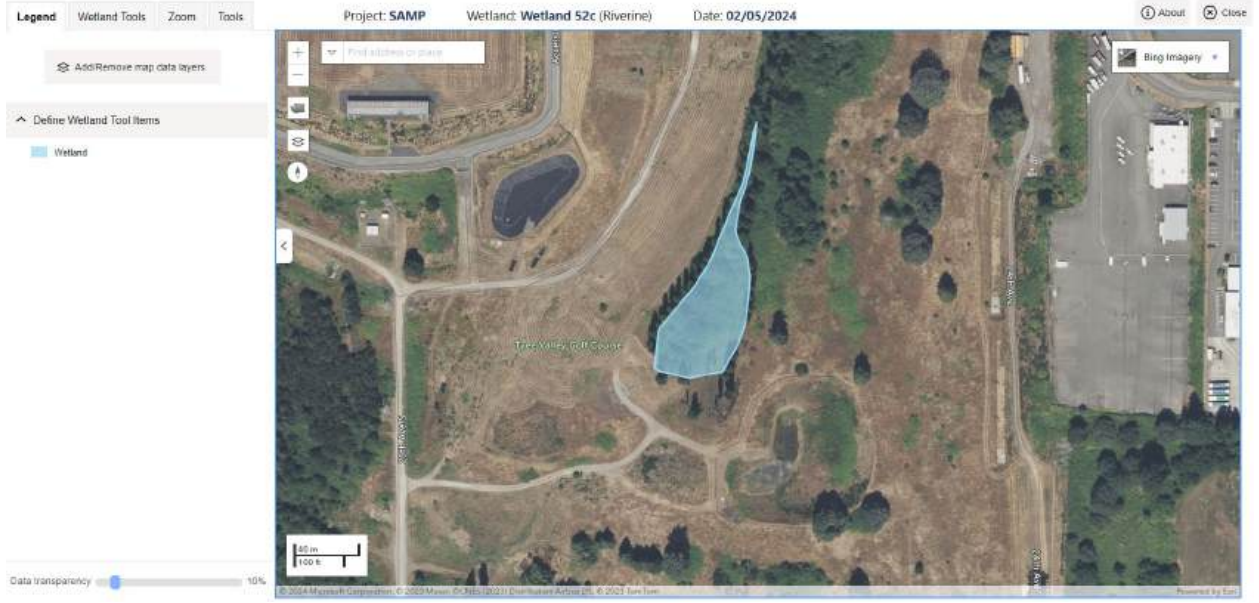
Result:

Wetland name or number: Wetland 52c

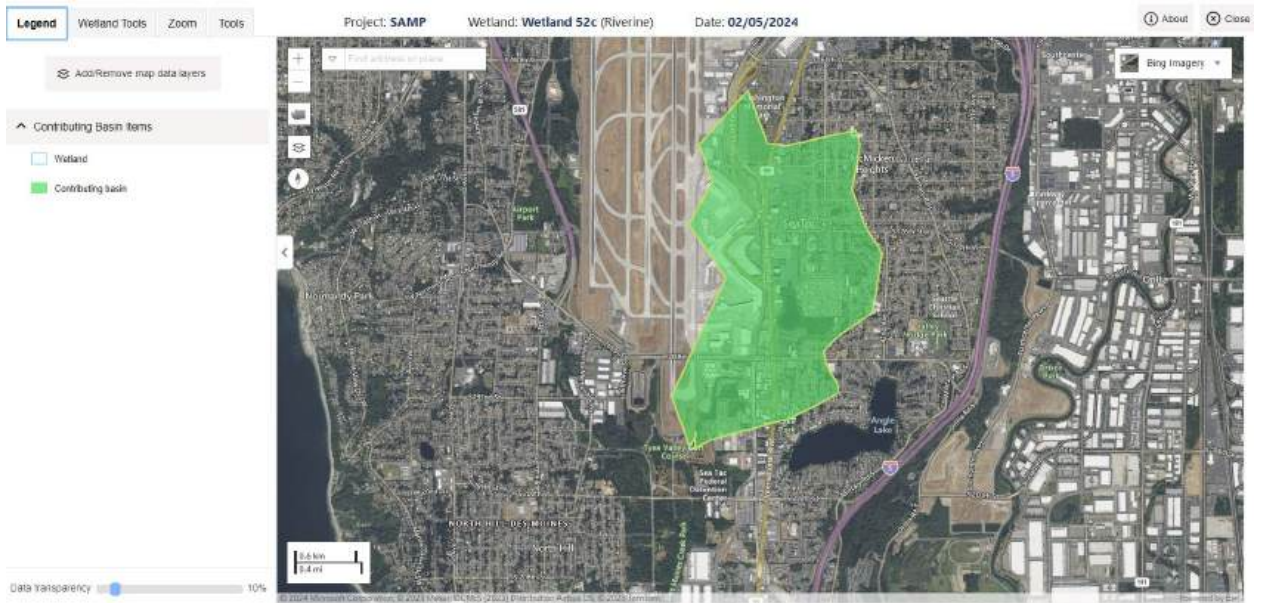
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

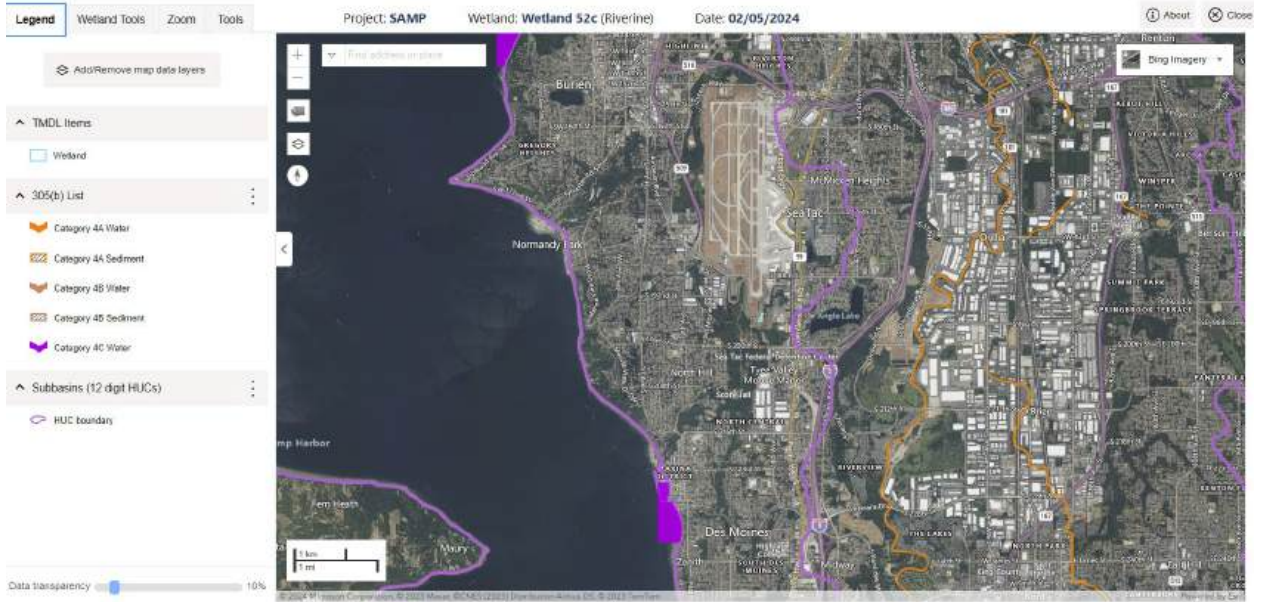
**Final Category: Not
Applicable**











Wetland name or number: Wetland A

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland A Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	L	
Landscape Potential	M	M	L	
Value	H	H	M	Total
Score Based on Ratings	6	6	4	16

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland A

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland A

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 1

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **3****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 1

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

Particulates in exhaust from overhead aircraft

Total for S 2: **2****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 0
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		3

Rating of Value 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS**Hydrologic Functions** - Indicators that the site functions to reduce flooding and stream degradation

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential 1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 1
Total for S 5:		1

Rating of Landscape Potential 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland A

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland A

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 0

Wetland name or number: Wetland A

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 0	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score:	
Total for H 1: 2	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

*Record the rating on the first page***H 2.0 Does the landscape have the potential to support habitat functions of the site?**

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland A

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 1
Total for H 3:		1

Rating of Value

[] 2 = H [X] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland A

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland A

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

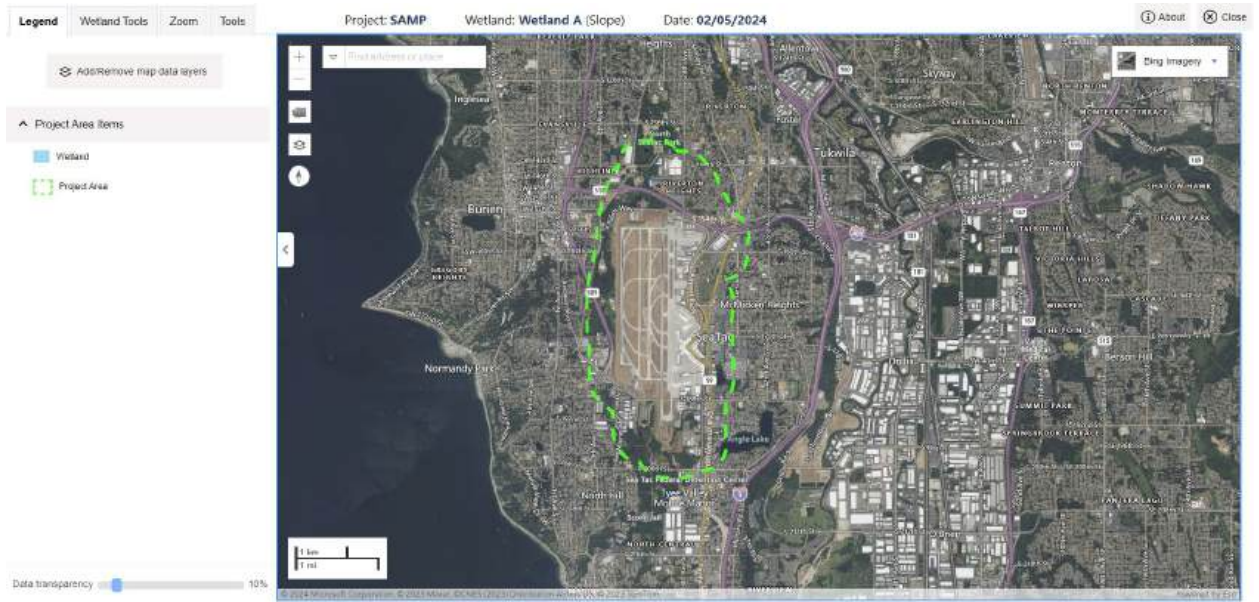
Result:

Wetland name or number: Wetland A

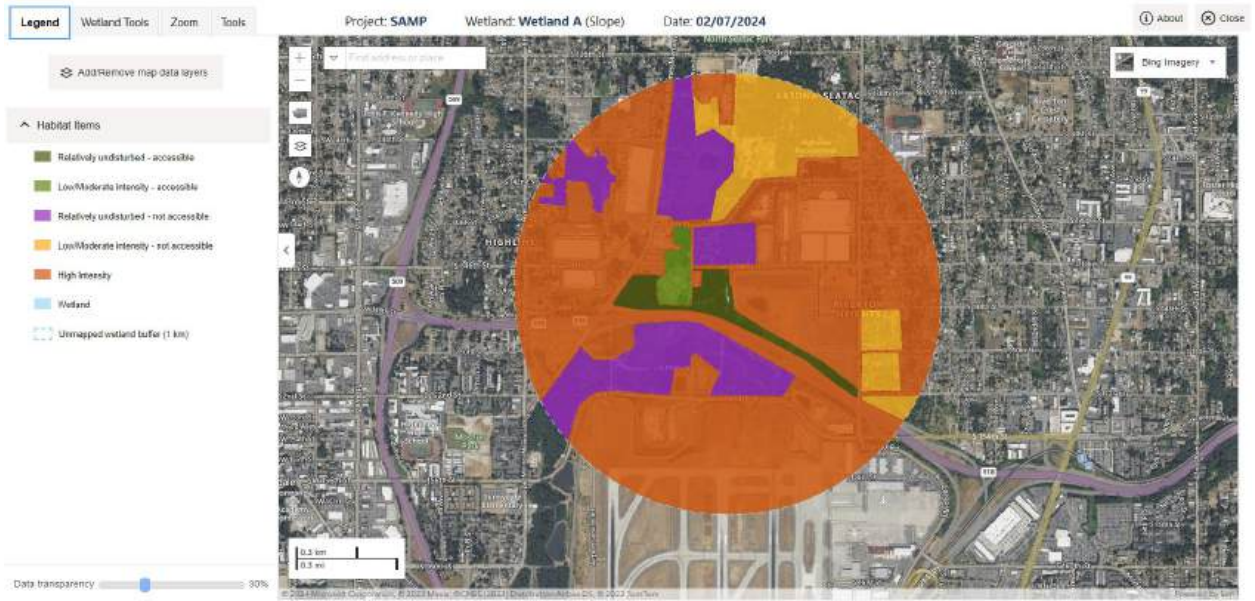
Category of wetland based on Special Characteristics

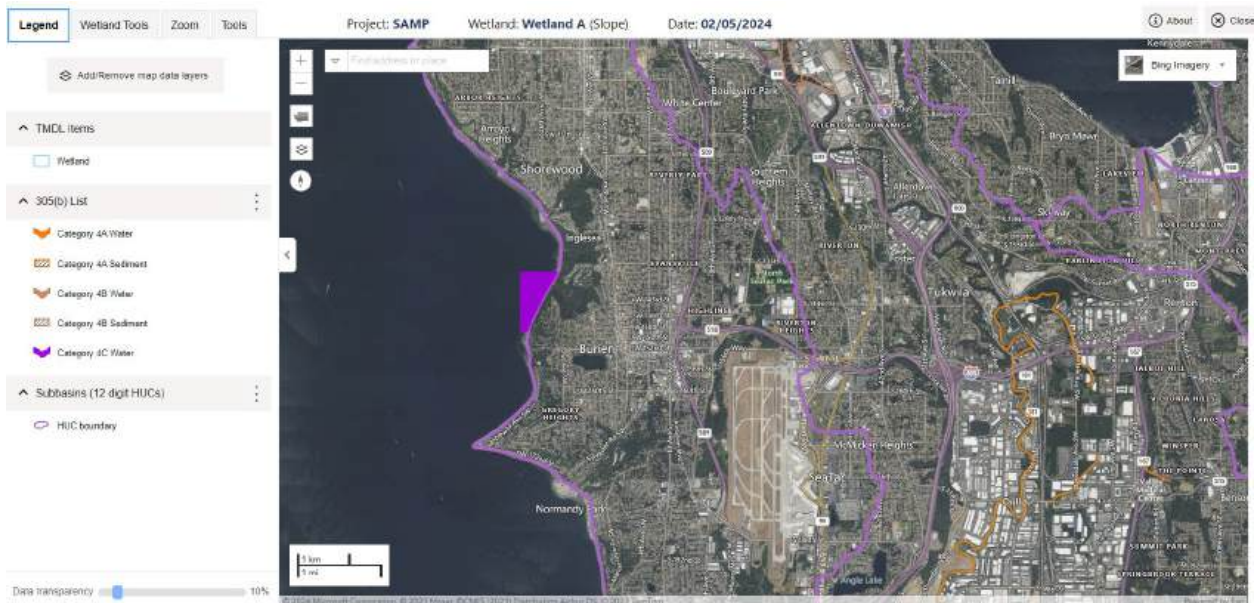
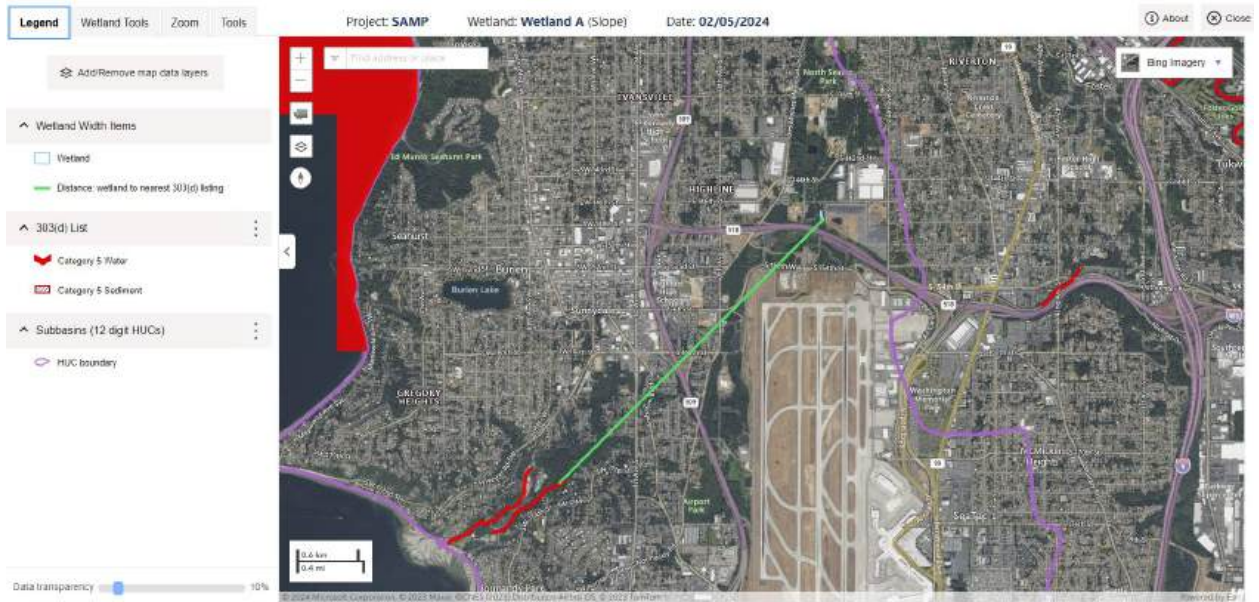
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Add/Remove map data layers

Land Use Items

- Generates excessive runoff
- Generates pollutants
- Generates excessive runoff and pollutants
- Upland within 150' wetland buffer
- Wetland
- Wetland buffer (150')



Data transparency 10%

Wetland name or number: Wetland A14a

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland A14a Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	M	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	6	5	6	17

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland A14a

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland A14a

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 1

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **3****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

Particulates from airplanes

Total for S 2: **1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14a

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

 1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14a

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14a

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 4**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland A14a

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 1	
Total for H 1: 9	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland A14a

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14a

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland A14a

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland A14a

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

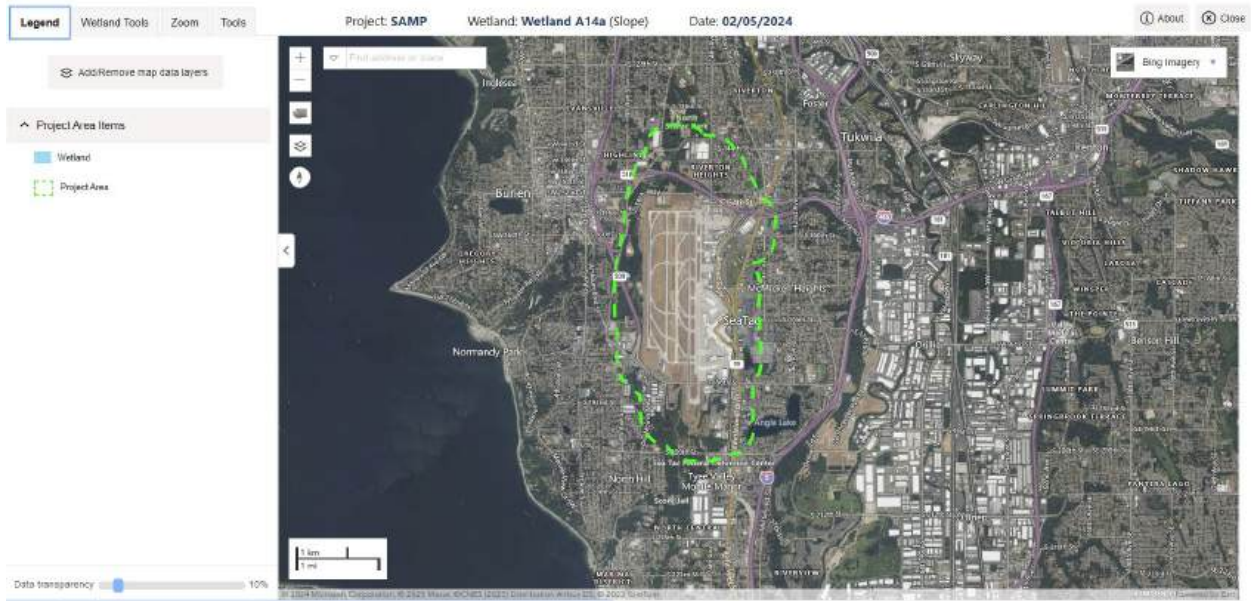
Result:

Wetland name or number: Wetland A14a

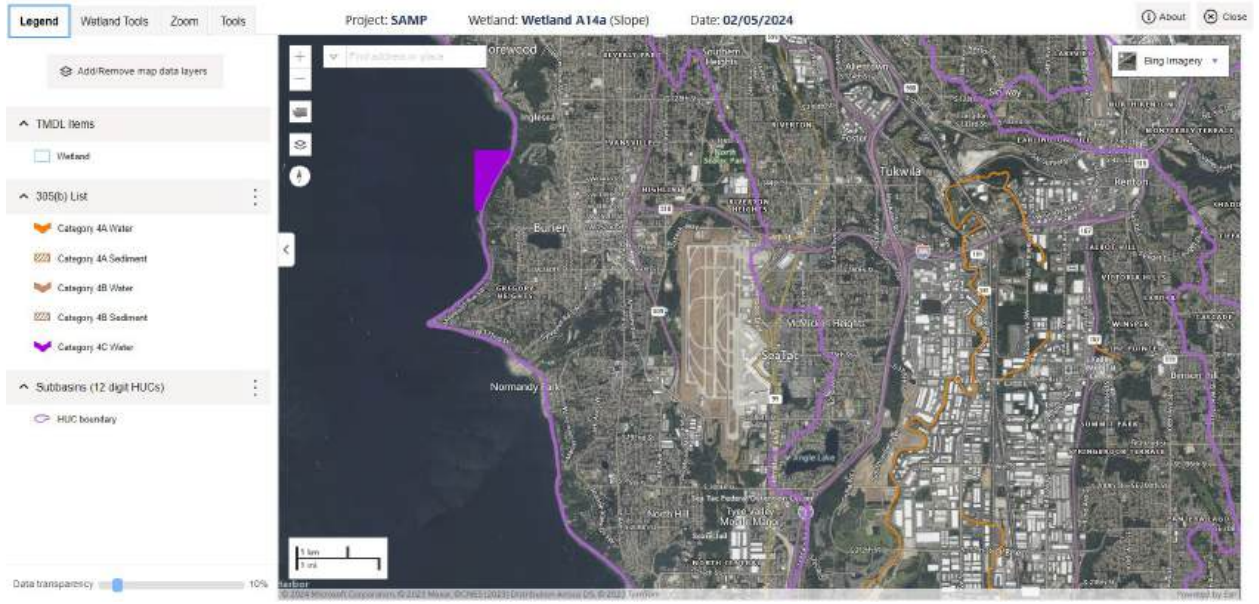
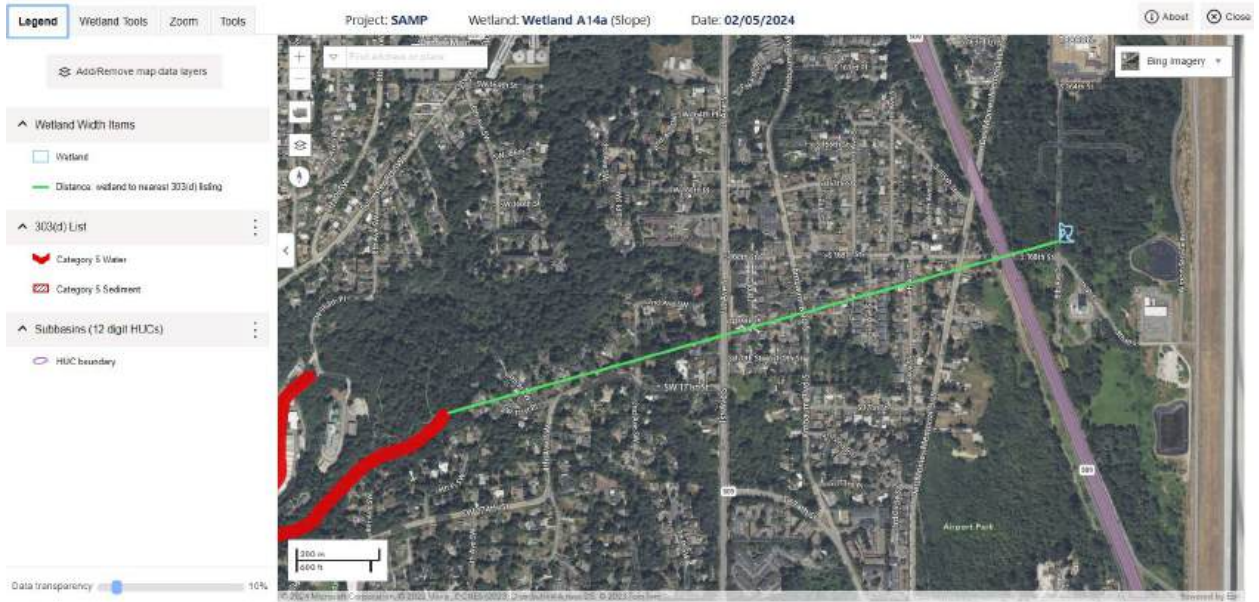
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland A14b

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland A14b Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category III]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	M	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	6	5	6	17

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland A14b

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland A14b

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 2

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: 4**Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 1

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

Particulates from airplanes

Total for S 2: 2**Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14b

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

 1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14b

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14b

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland A14b

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 1	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland A14b

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A14b

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland A14b

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland A14b

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

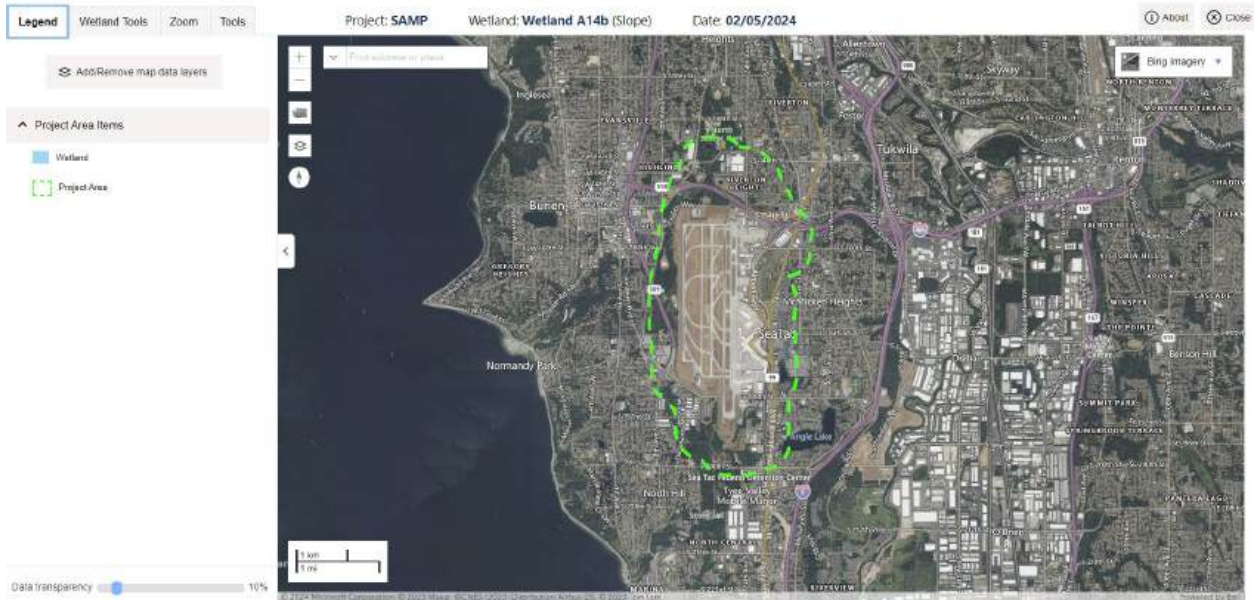
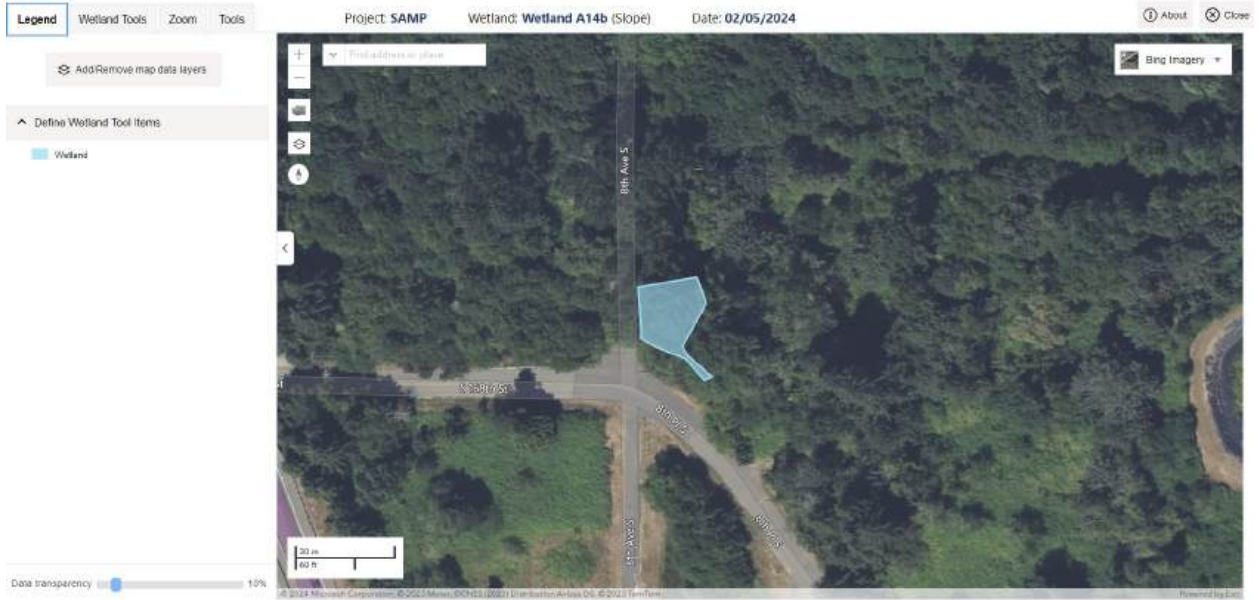
Result:

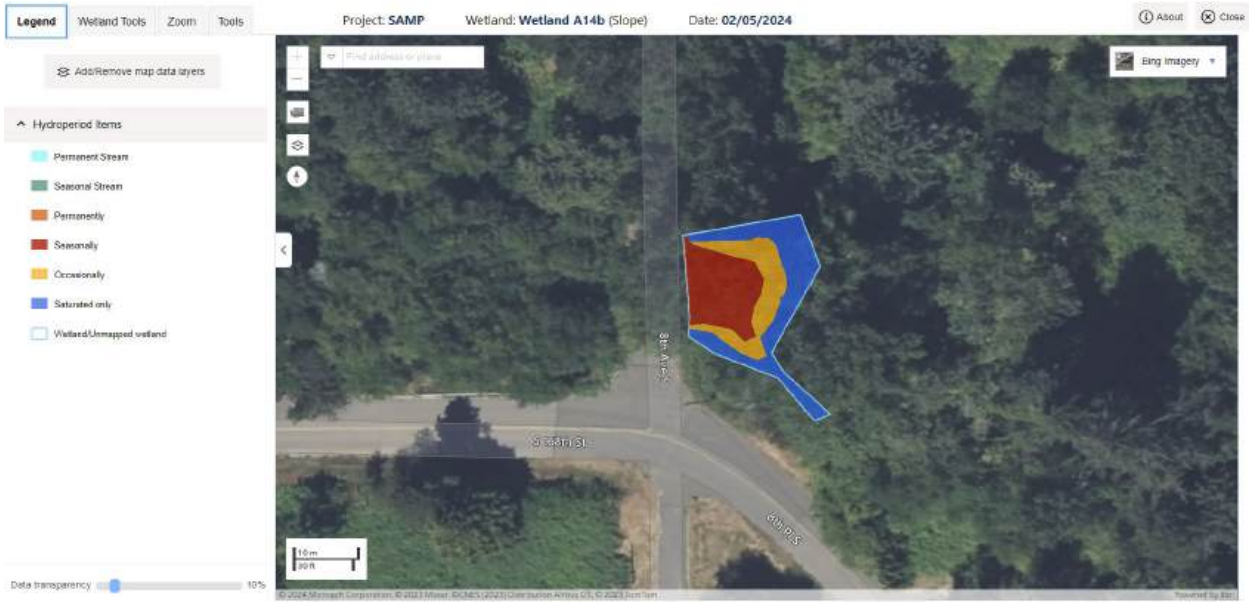
Wetland name or number: Wetland A14b

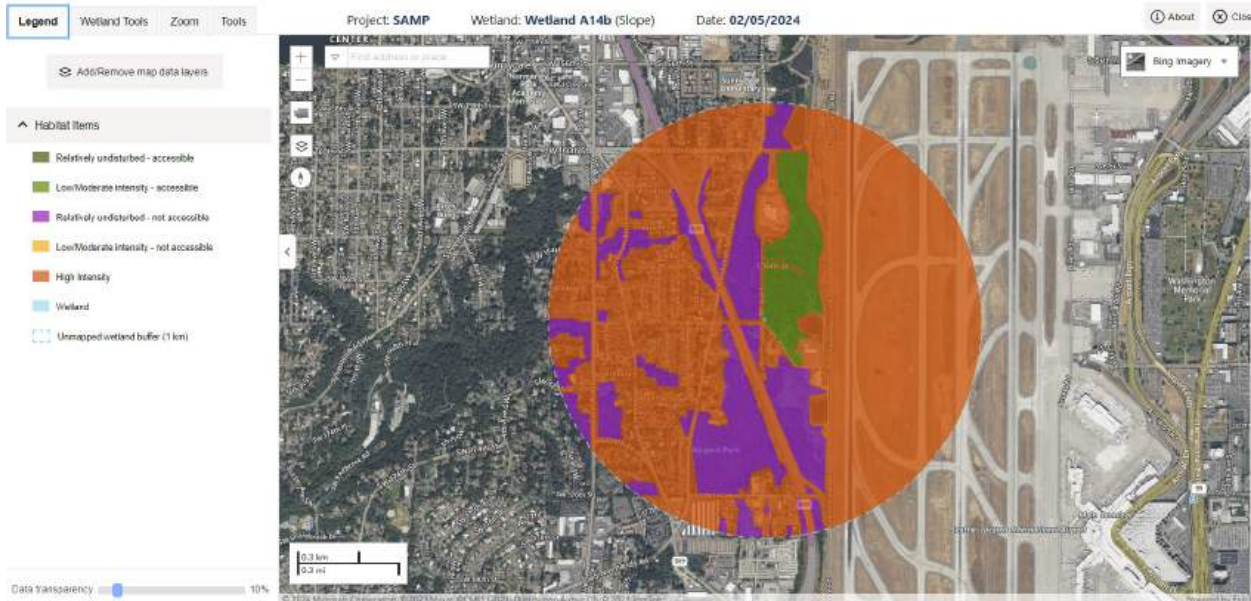
Category of wetland based on Special Characteristics

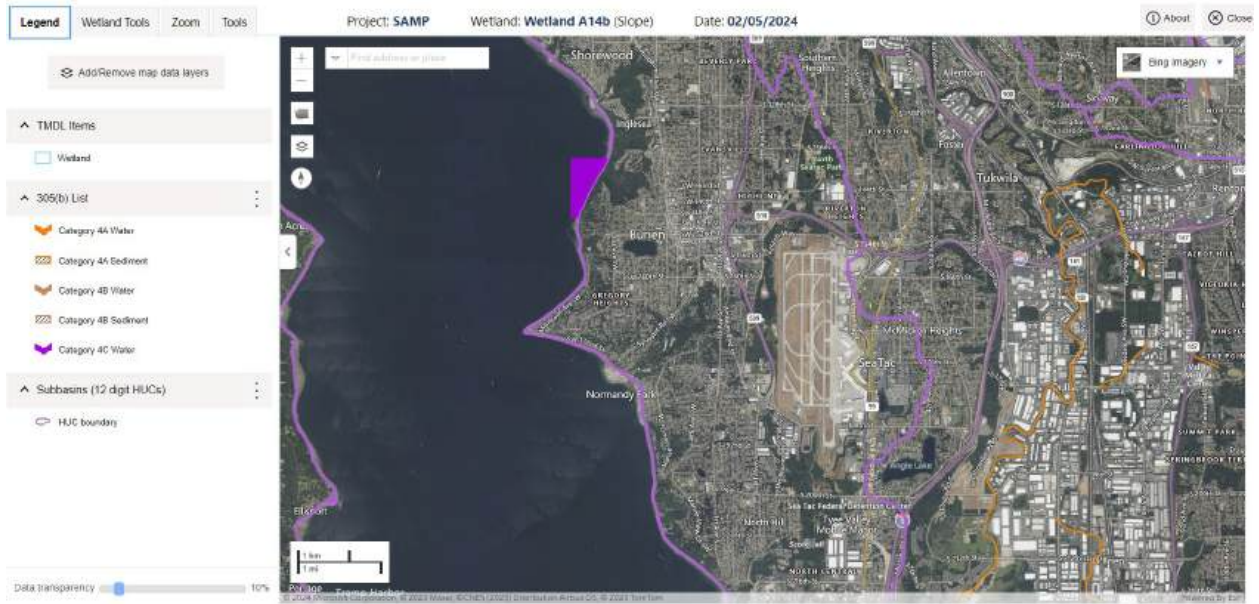
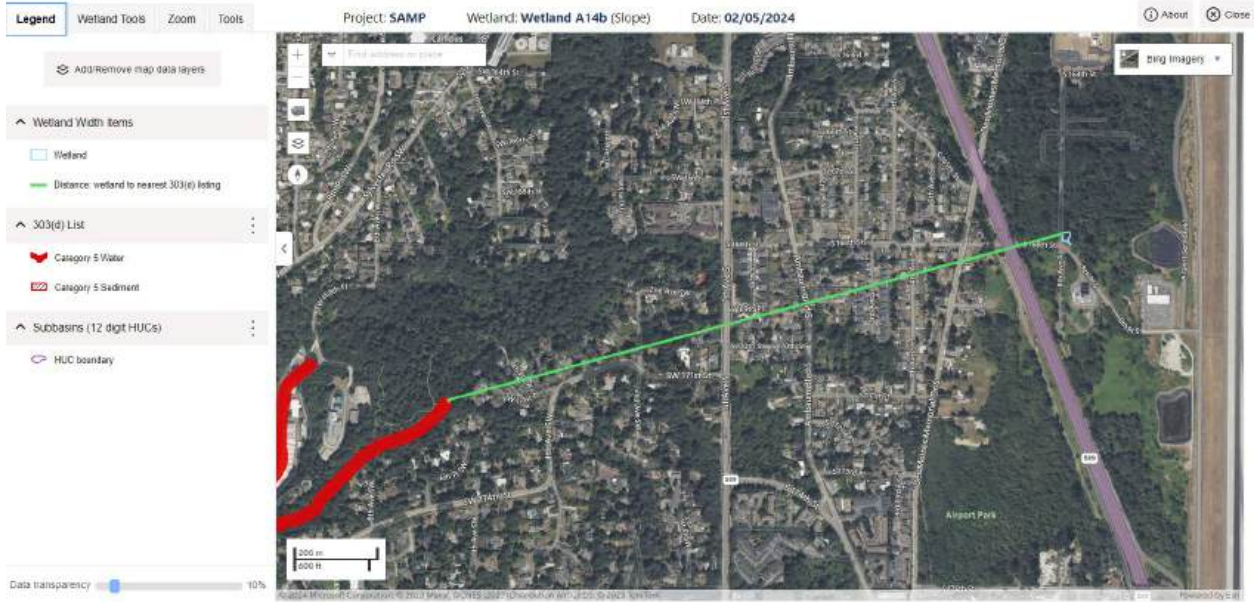
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland A20

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland A20 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

- Category I - Total score = 23 - 27
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- Category III - Total score = 16 - 19
- Category IV - Total score = 9 - 15

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	L	M	
Landscape Potential	H	M	L	
Value	H	H	M	Total
Score Based on Ratings	8	6	5	19

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland A20

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: Wetland A20

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**D 1.0 Does the site have the potential to improve water quality?****D 1.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 2

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 2

Total for D 1: 9**Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?**D 2.1** Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 1

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 1

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland A20**D 2.5** What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****4****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation**D 4.0** Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 2**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 0

Wetland name or number: Wetland A20

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 3
Total for D 4:		5

Rating of Site Potential

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 0
Total for D 5:		2

Rating of Landscape Potential

[] 3 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A20

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 2**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland A20

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 9	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland A20

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 1
Total for H 3:		1

Rating of Value

[] 2 = H [X] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland A20

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland A20

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland A20

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

Result:

Wetland name or number: Wetland A20

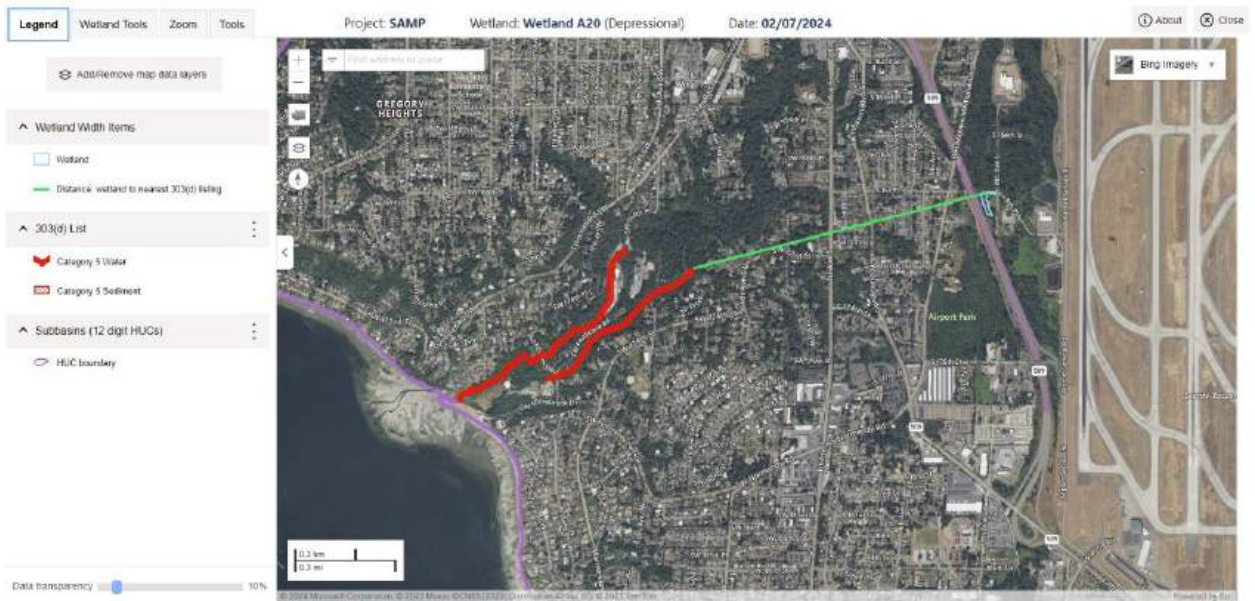
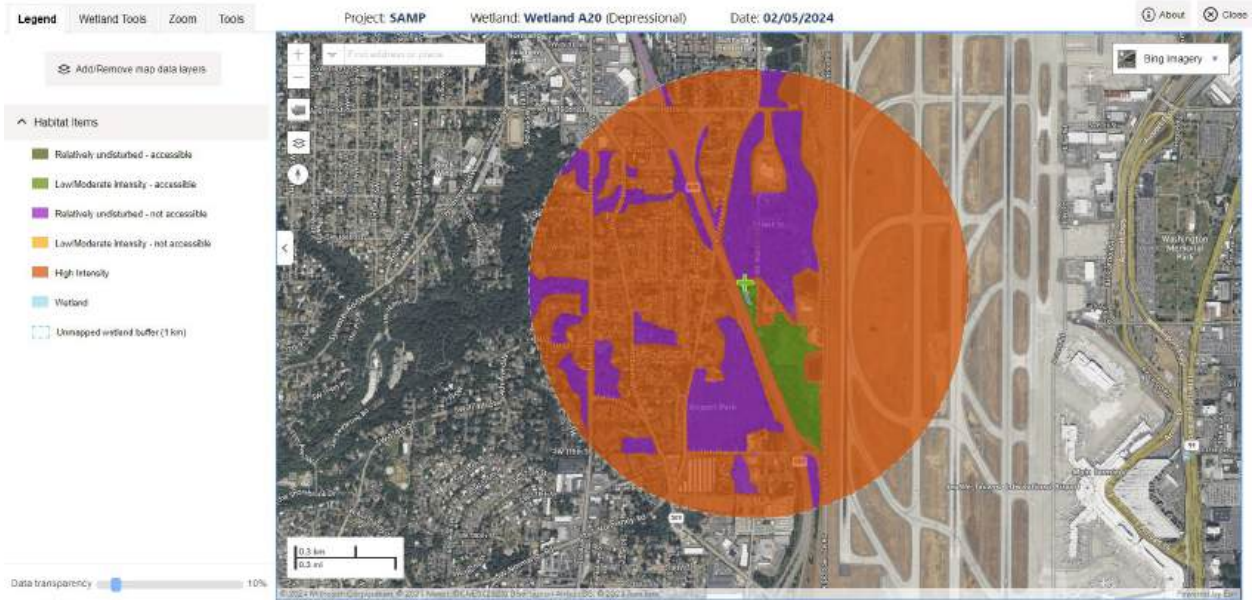
Category of wetland based on Special Characteristics

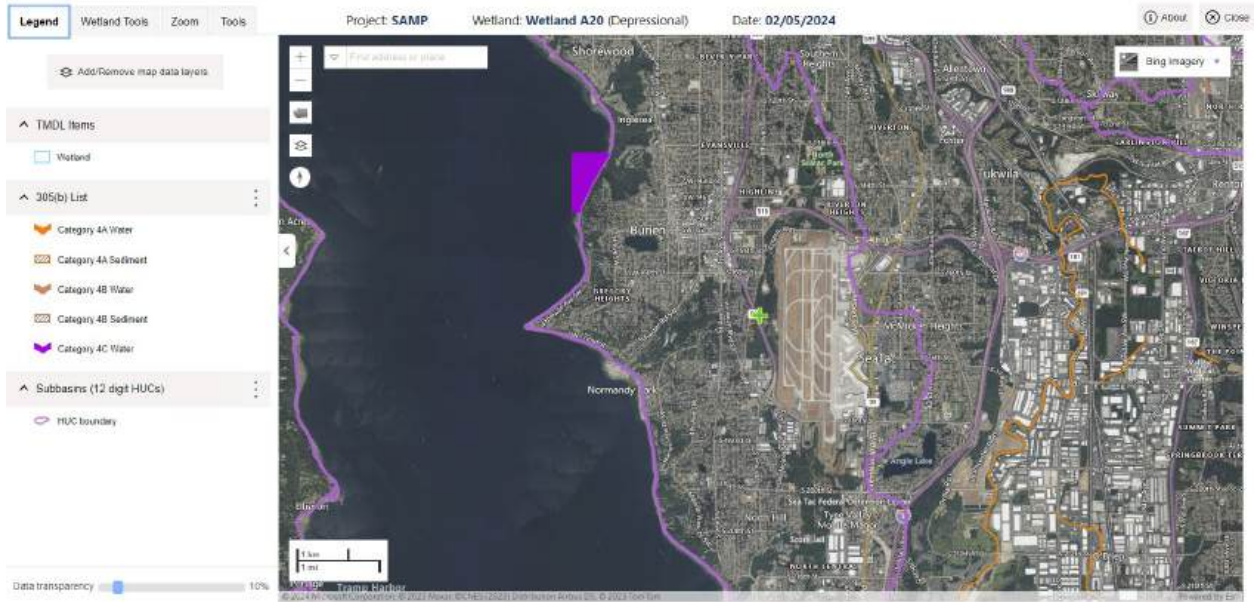
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland D

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland D Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	H	L	
Value	H	M	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland D

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: Wetland D

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

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

R 1.0 Does the site have the potential to improve water quality?

R 1.1 What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 2

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 8

Total for R 1: **10**

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?

R 2.1 Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

Particulates from airplanes

Total for R 2: **4**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland D

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

<u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u>		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 2
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		9

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland D

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

Rating of Landscape Potential

 3 = H 1-2 = M 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 1
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for R 6:		1

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland D

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland D

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input checked="" type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland D

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland D

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland D

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland D

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

Result:

Wetland name or number: Wetland D

Category of wetland based on Special Characteristics

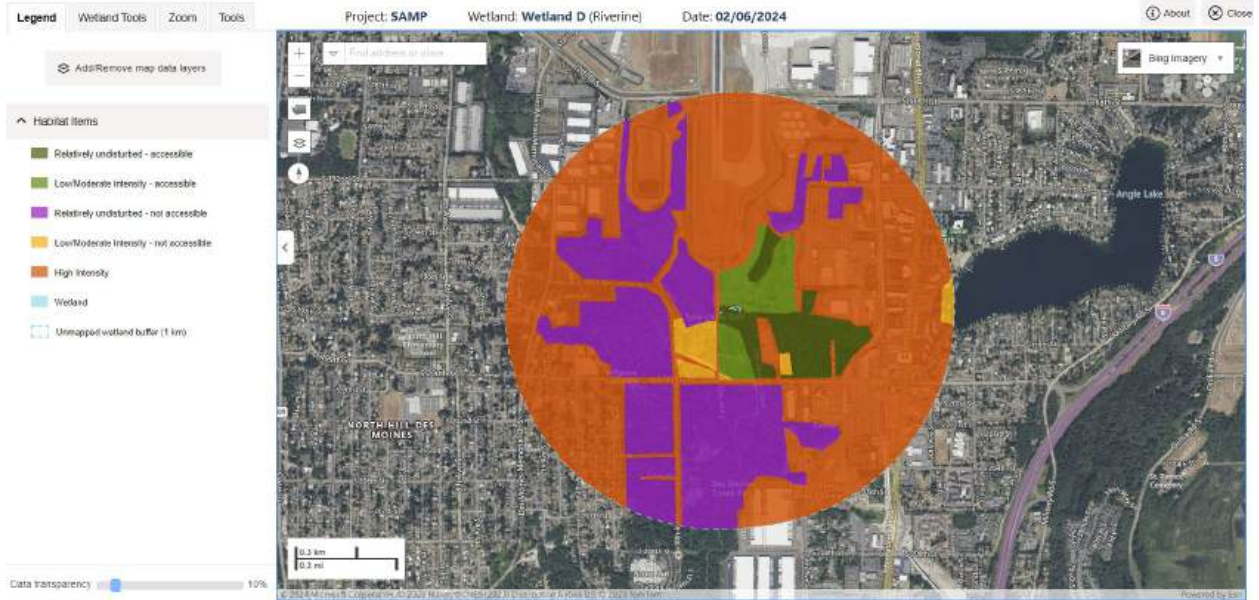
If you answered No for all types, enter "Not Applicable" on Summary Form

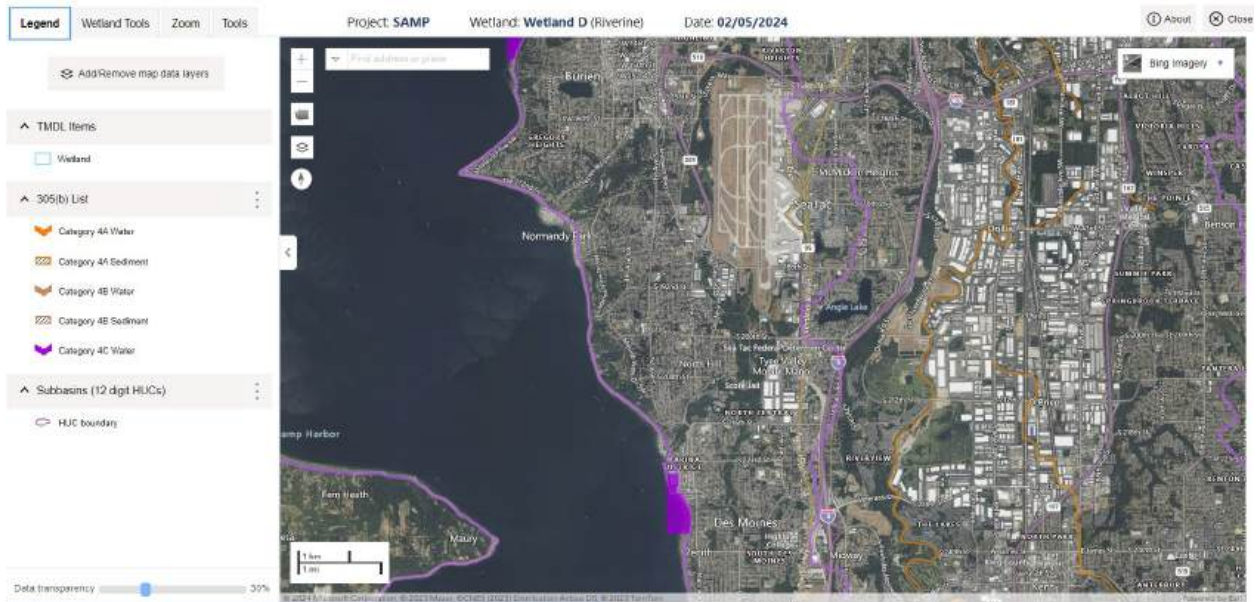
**Final Category: Not
Applicable**











Wetland name or number: Wetland DMC-1 & DMC-2

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland DMC-1 & DMC-2 **Date of site visit:** 12/15/2023

Rated By: Kaylee Moser **Trained by Ecology? Yes** **No** **Date of Training:** 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes **No**

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category III]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	L	
Landscape Potential	M	M	L	
Value	H	H	H	Total
Score Based on Ratings	6	6	5	17

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland DMC-1 & DMC-2

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland DMC-1 & DMC-2

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 2

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **4****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 1

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for S 2: **2****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland DMC-1 & DMC-2

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 1
Total for S 5:		1

Rating of Landscape Potential

1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland DMC-1 & DMC-2

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 6:		4

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland DMC-1 & DMC-2

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 0

Wetland name or number: Wetland DMC-1 & DMC-2

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 1	
Total for H 1: 5	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland DMC-1 & DMC-2

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential [] 4-6 = H [] 1-3 = M [X] 0 = L *Record the rating on the first page*

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value [X] 2 = H [] 1 = M [] 0 = L *Record the rating on the first page*

Wetland name or number: Wetland DMC-1 & DMC-2

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland DMC-1 & DMC-2

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland DMC-1 & DMC-2

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

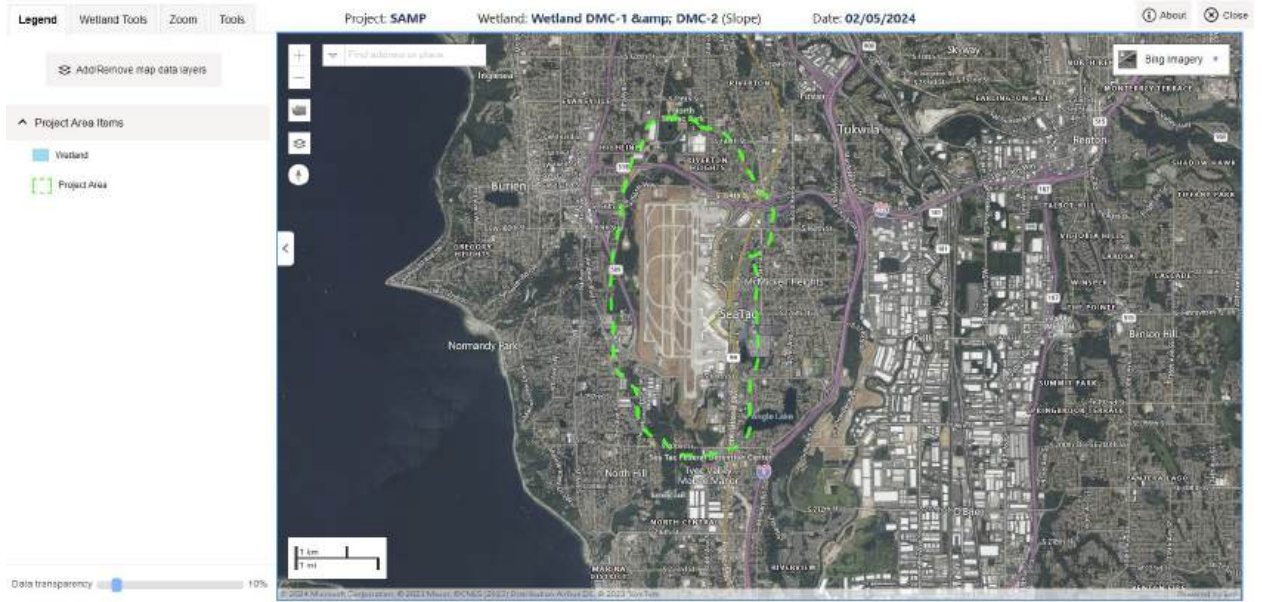
Result:

Wetland name or number: Wetland DMC-1 & DMC-2

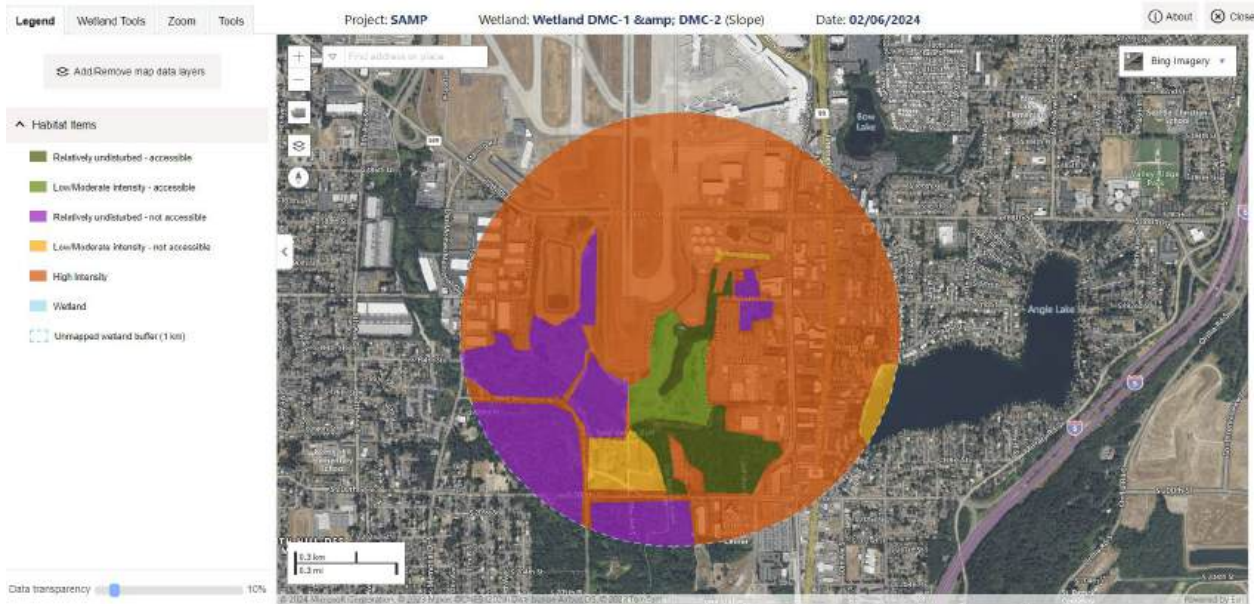
Category of wetland based on Special Characteristics

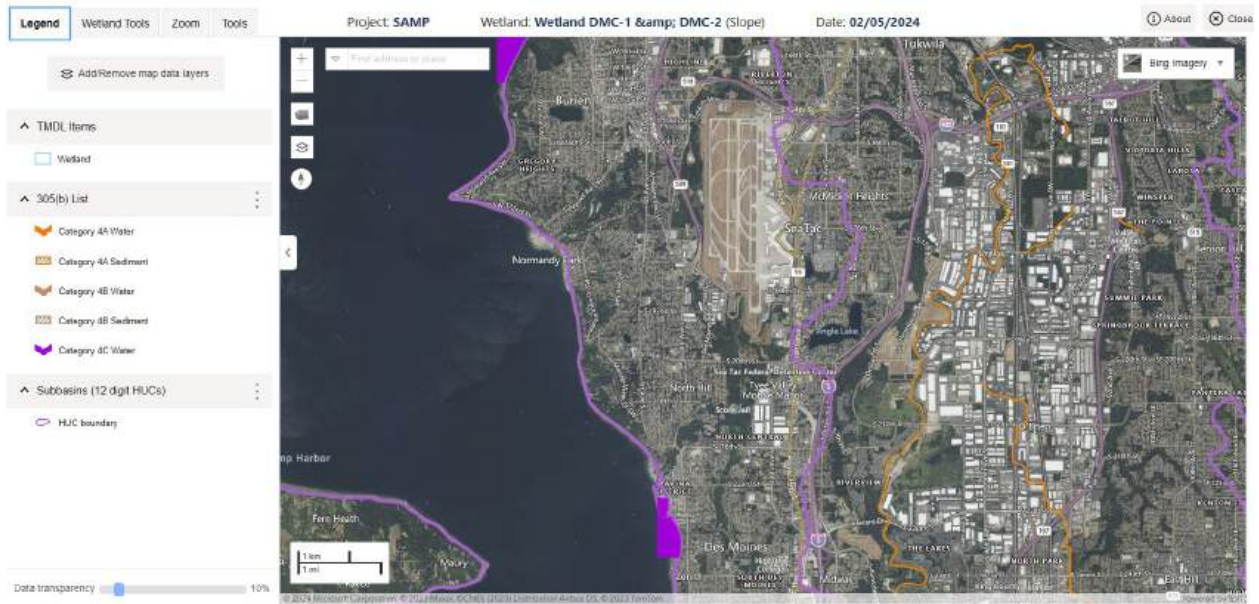
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**











Wetland name or number: Wetland E-1

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland E-1 Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category III]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	L	
Landscape Potential	M	M	L	
Value	H	H	M	Total
Score Based on Ratings	6	6	4	16

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland E-1

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland E-1

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 0

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **2****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 1

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

particulates from airplanes

Total for S 2: **2****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland E-1

S 3.0 Is the water quality improvement provided by the site valuable to society?		
S 3.1 <u>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?</u>		
Yes	points = 1	
No	points = 0	Score: 0
S 3.2 <u>Is the wetland in a basin or sub-basin where water quality is an issue?</u>		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		3

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

<u>SLOPE WETLANDS</u>	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation	
S 4.0 Does the site have the potential to reduce flooding and erosion?	
S 4.1 <u>What are the characteristics of the plants that reduce the velocity of surface flows during storms?</u>	
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1
All other conditions	points = 0
Score: 0	
Total for S 4:	
0	

Rating of Site Potential

1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions of the site?	
S 5.1 <u>Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff?</u>	
Yes	points = 1
No	points = 0
Score: 1	
Total for S 5:	
1	

Rating of Landscape Potential

1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland E-1

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland E-1

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
 Emergent
 Scrub-shrub
 Forested
 Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
 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
 Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland E-1

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 0	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 5	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland E-1

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 1
Total for H 3:		1

Rating of Value

[] 2 = H [X] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland E-1

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland E-1

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland E-1

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

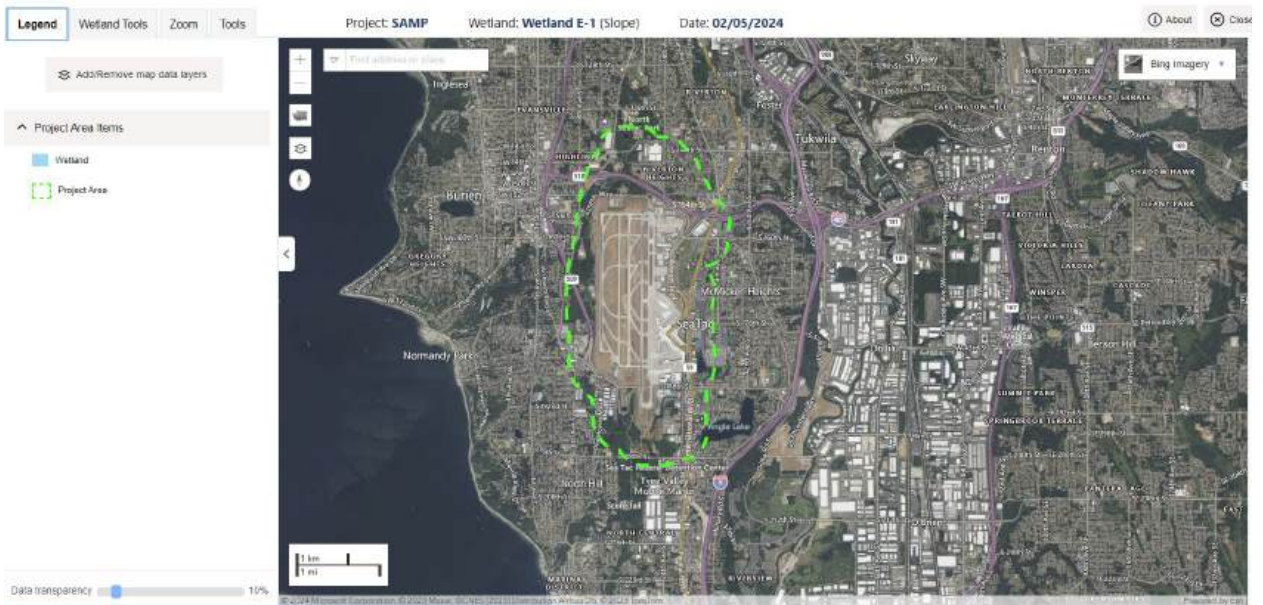
Result:

Wetland name or number: Wetland E-1

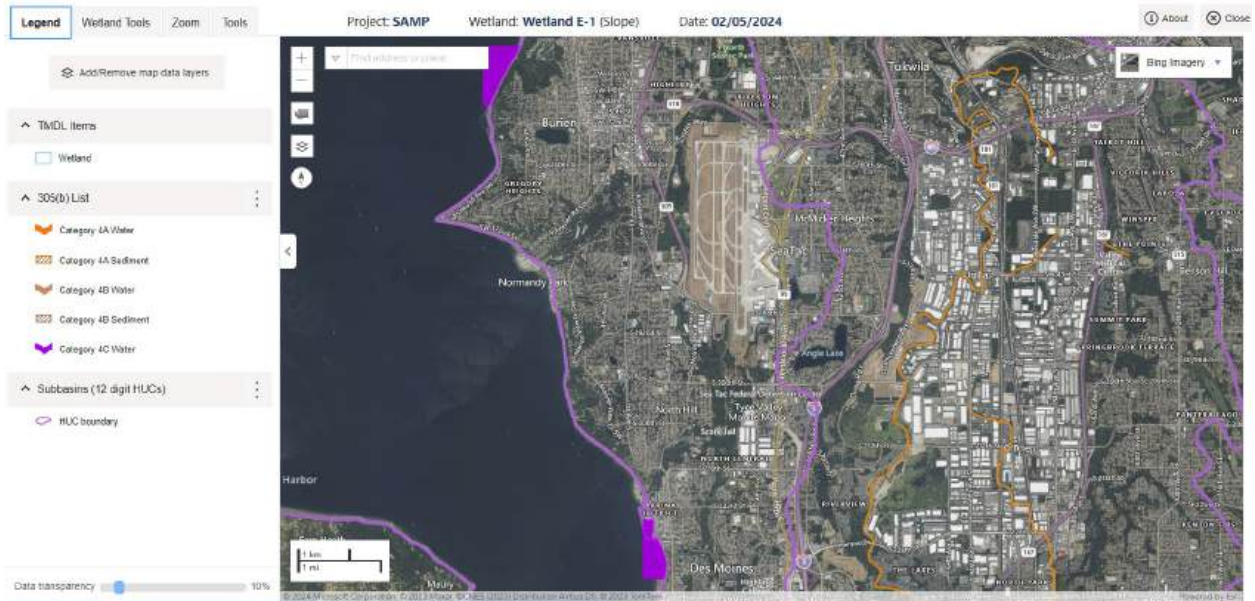
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland G1

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland G1 Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	L	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	6	5	5	16

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland G1

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland G1

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 0

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **2****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

particulates from airplanes

Total for S 2: **1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland G1

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

 1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland G1

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 6:		4

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland G1

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 0**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
<5 species	points = 0

Score: 1

Wetland name or number: Wetland G1

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 1	
Total for H 1: 4	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 1	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland G1

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		0

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland G1

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

Result:

Wetland name or number: Wetland G1

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland G1

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

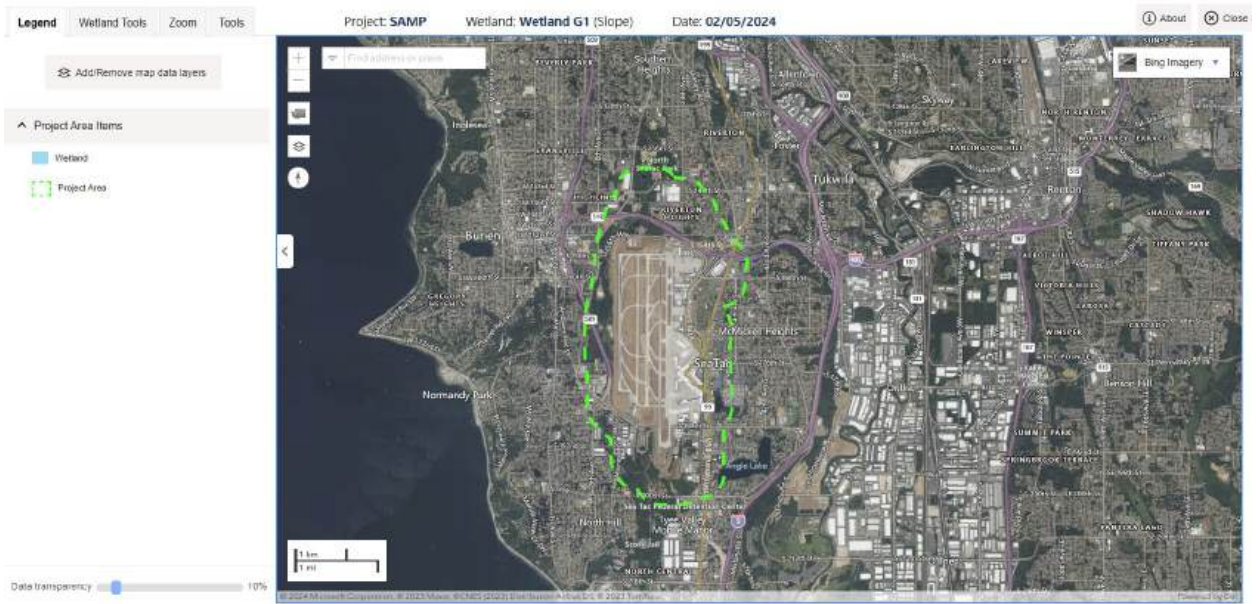
Result:

Wetland name or number: Wetland G1

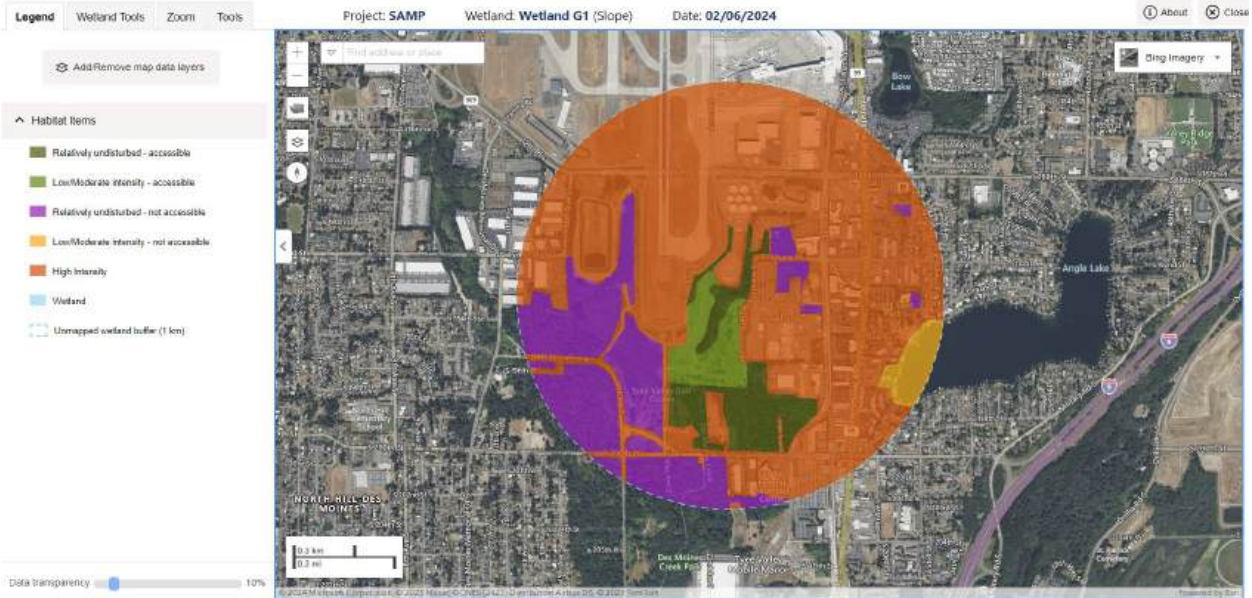
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**







Wetland name or number: Wetland G4

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland G4 Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category III]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	L	L	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	7	5	5	17

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland G4

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland G4

SLOPE WETLANDS

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

S 1.0 Does the site have the potential to improve water quality?

S 1.1 What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 0

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 6

Total for S 1: **6**

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?

S 2.1 Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

particulates from airplanes

Total for S 2: **1**

Rating of Landscape Potential

3-4 = H 1-2 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland G4

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland G4

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 6:		4

Rating of Value

2-4 = H **1 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland G4

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 0**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 0**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 0

Wetland name or number: Wetland G4

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 0	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 0	
Total for H 1: 0	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 1	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland G4

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		0

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland G4

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland G4

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland G4

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

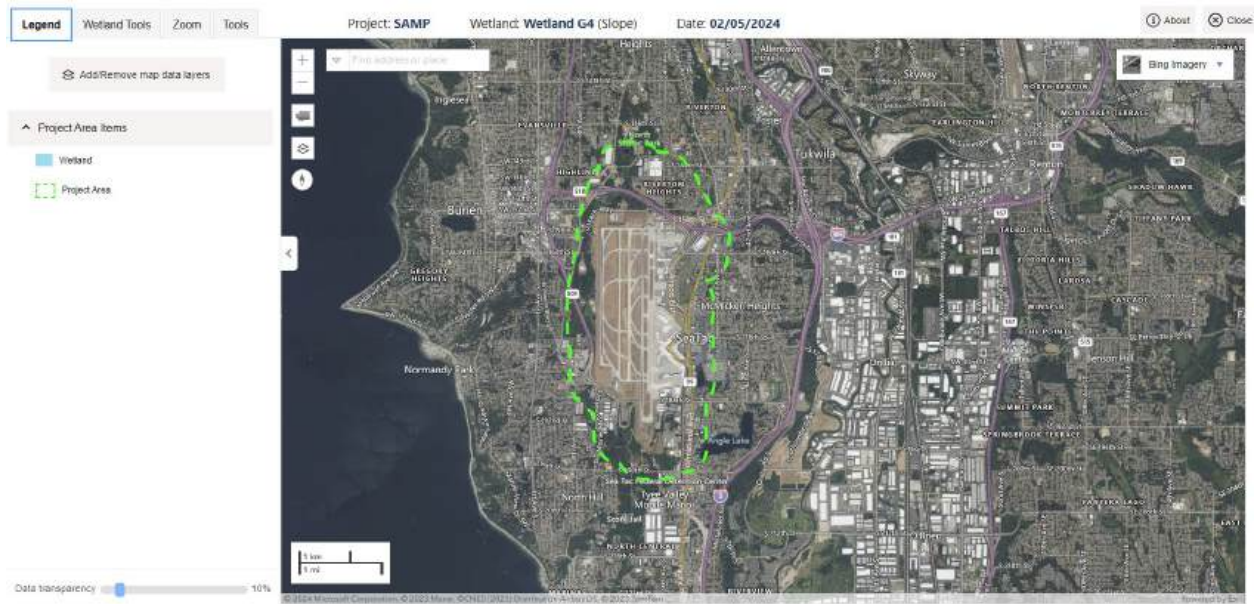
Result:

Wetland name or number: Wetland G4

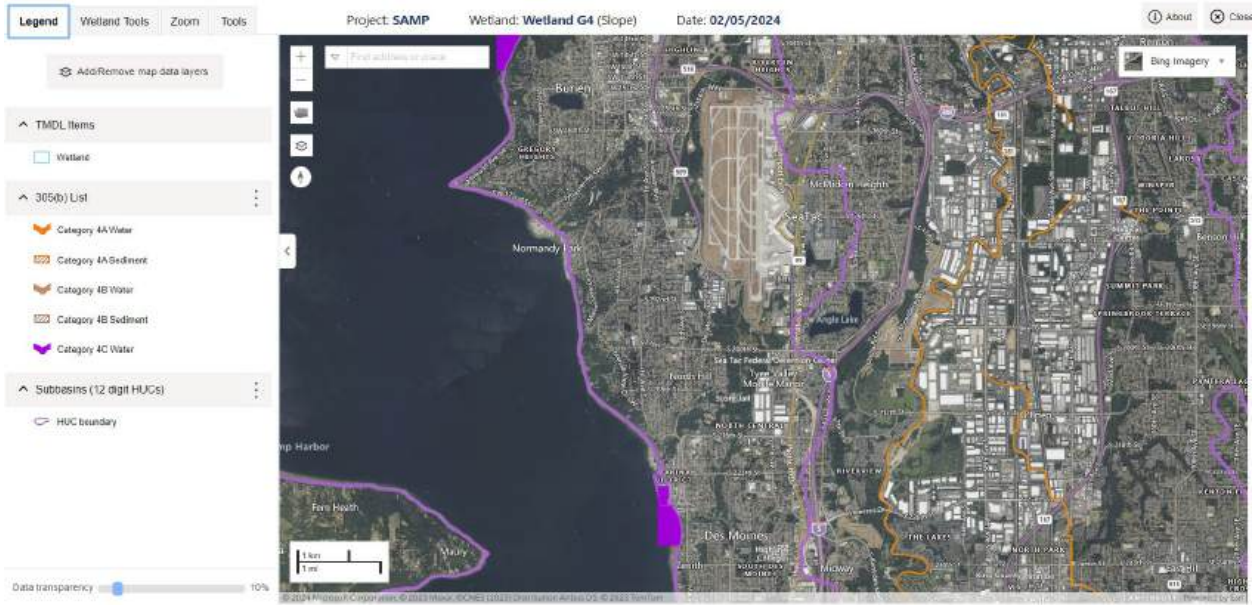
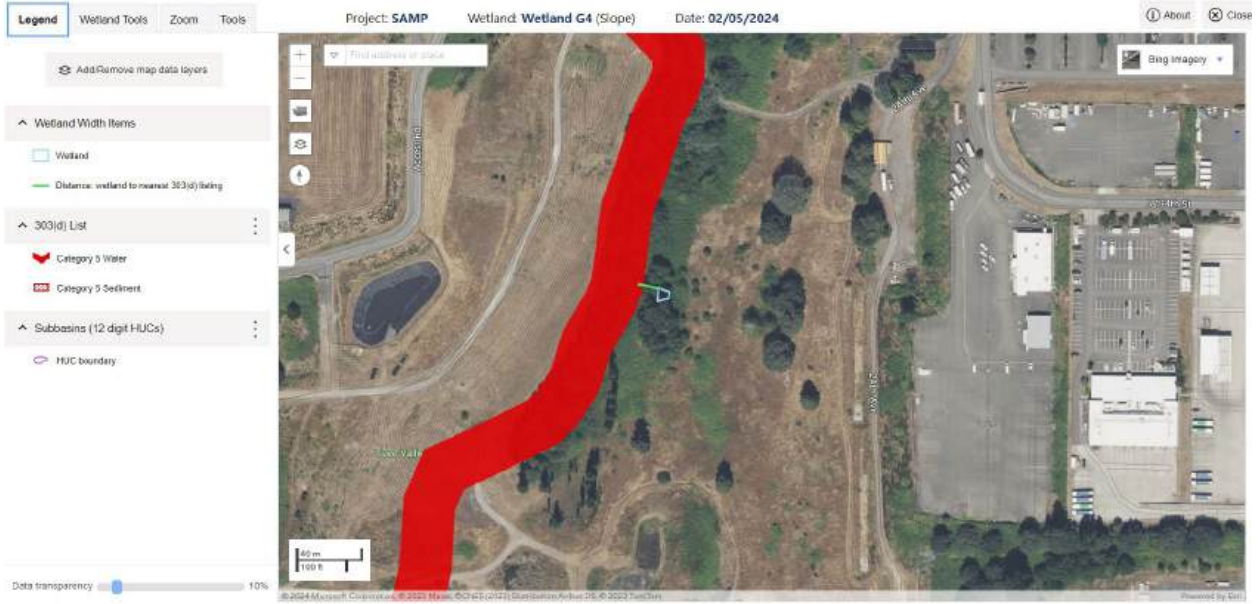
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**







Project: **SAMP** Wetland: **Wetland G4 (Slope)** Date: **02/05/2024** About Close

Legend Wetland Tools Zoom Tools

⊞ Add/Remove map data layers

^ Land Use Items

- Generates excessive runoff
- Generates pollutants
- Generates excessive runoff and pollutants
- Upland within 150 wetland buffer
- Wetland
- Wetland buffer (150)

Data transparency 10%

Find wetland on globe

Bring imagery

20 m
60 ft

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Wetland name or number: Wetland G5

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland G5 Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	L	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	6	5	5	16

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland G5

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland G5

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 0

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 3

Total for S 1: **3****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

Particulates from airplanes

Total for S 2: **1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland G5

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 1
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		4

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

 1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland G5

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 6:		4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland G5

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 0**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland G5

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 0	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 0	
Total for H 1: 2	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland G5

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

4-6 = H 1-3 = M 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

2 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland G5

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland G5

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland G5

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

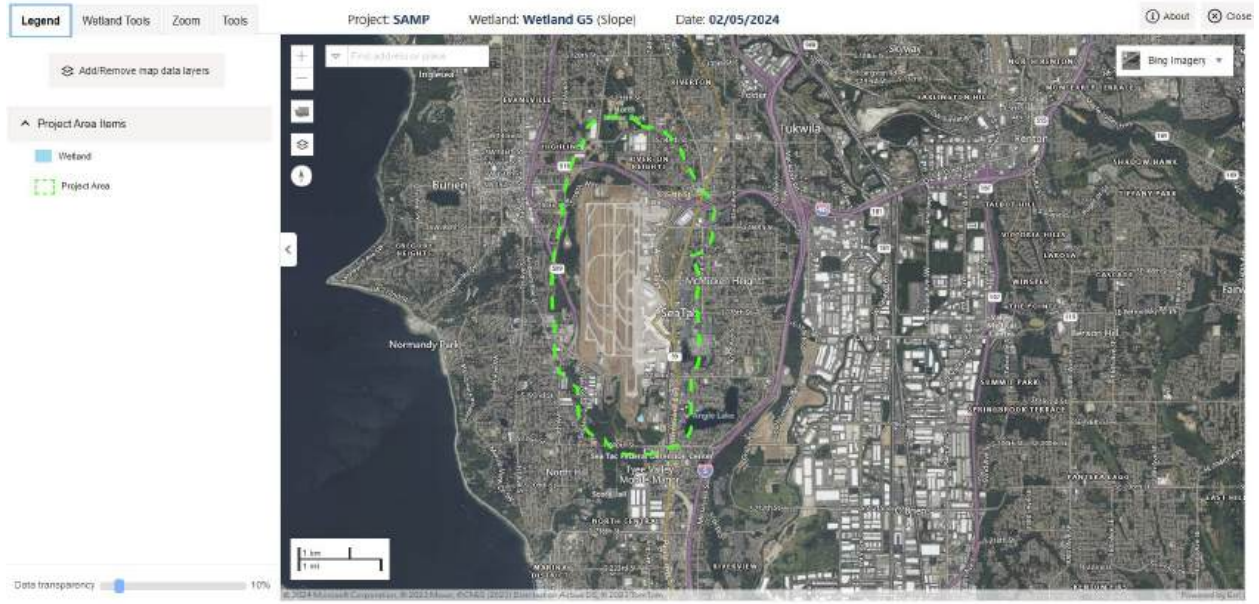
Result:

Wetland name or number: Wetland G5

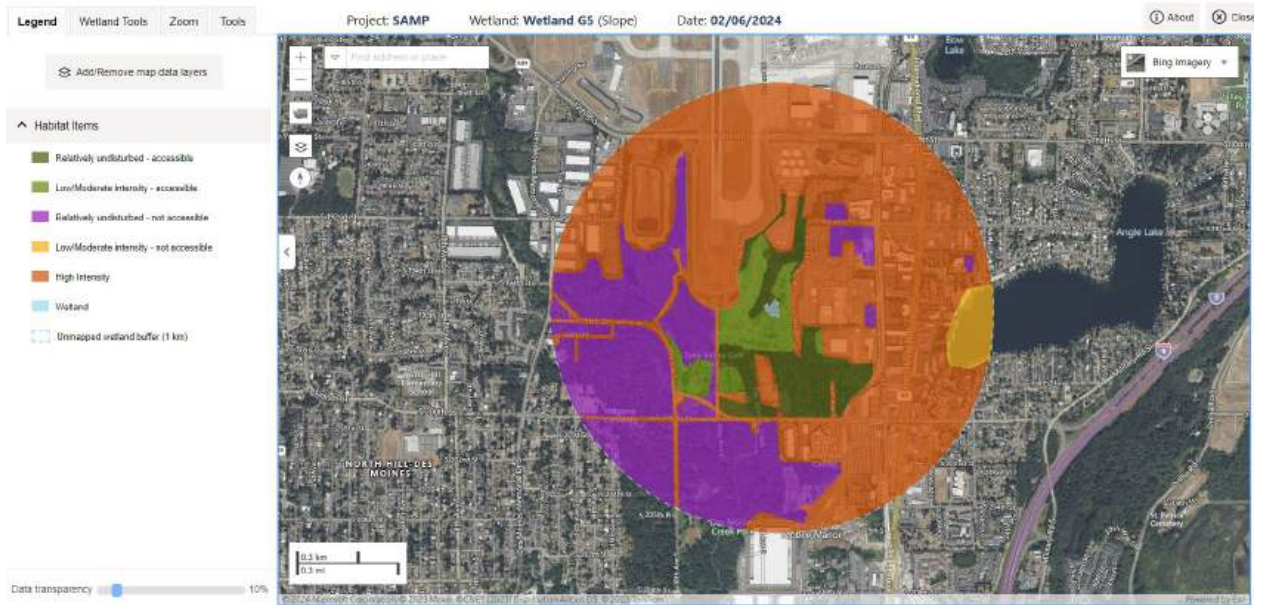
Category of wetland based on Special Characteristics

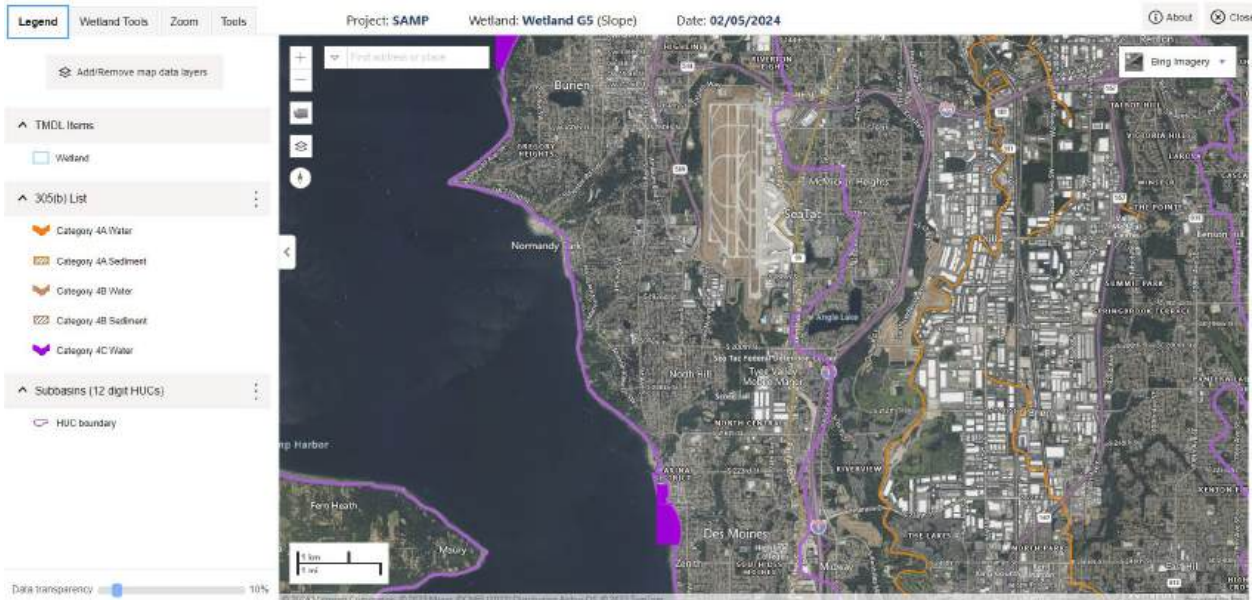
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Add/Remove map data layers

Land Use Items

- Generates excessive runoff
- Generates pollutants
- Generates excessive runoff and pollutants
- Upland within 150' wetland buffer
- Wetland
- Wetland buffer (150')



Data transparency 10%

Wetland name or number: Wetland G12

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland G12 Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category II]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	8	6	22

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland G12

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	<input type="text"/>
Hydroperiods	D 1.4, H 1.2	<input type="text"/>
Location of outlet <i>(can be added to map of hydroperiods)</i>	D 1.1, D 4.1	<input type="text"/>
Boundary of area within 150 ft of the wetland <i>(can be added to another figure)</i>	D 2.2, D 5.2	<input type="text"/>
Map of the contributing basin	D 4.3, D 5.3	<input type="text"/>
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	<input type="text"/>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	<input type="text"/>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	<input type="text"/>

Wetland name or number: Wetland G12

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**D 1.0 Does the site have the potential to improve water quality?****D 1.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 2

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0

Total for D 1: **7****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?**D 2.1** Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 1

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 1

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland G12**D 2.5** What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation**D 4.0** Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 2**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 1

Wetland name or number: Wetland G12

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 5
Total for D 4:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for D 6:		4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland G12

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 2**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland G12

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland G12

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland G12

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland G12

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland G12

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

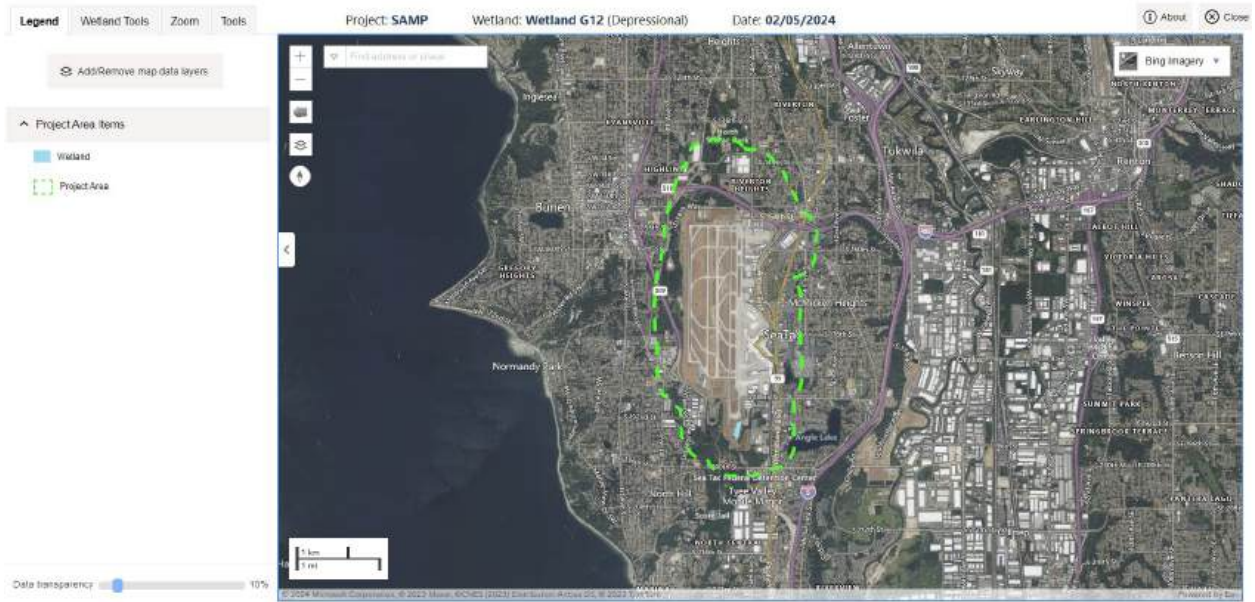
Result:

Wetland name or number: Wetland G12

Category of wetland based on Special Characteristics

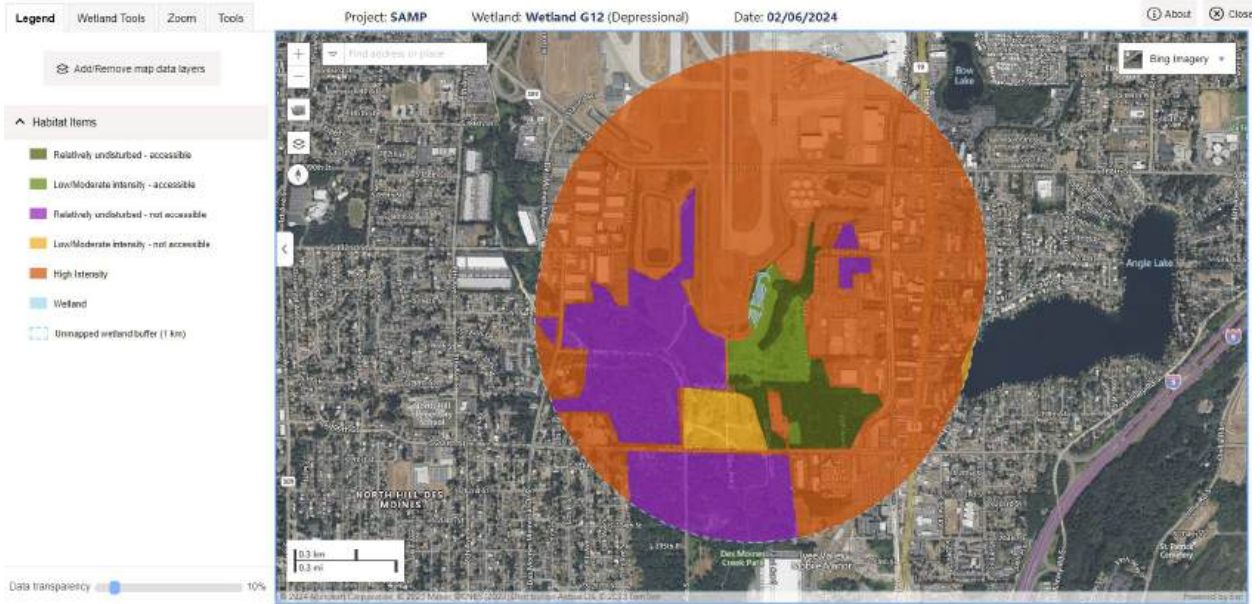
If you answered No for all types, enter "Not Applicable" on Summary Form

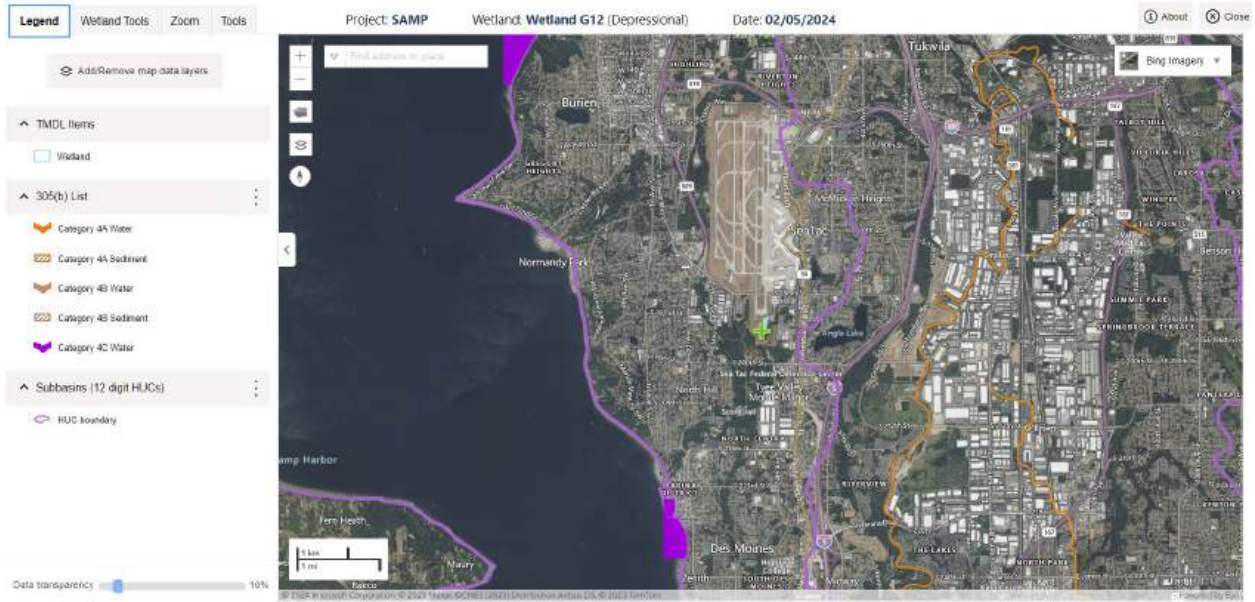
**Final Category: Not
Applicable**











Wetland name or number: Wetland H

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland H Date of site visit: 01/10/2024

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category III] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	L	
Landscape Potential	M	L	L	
Value	H	H	H	Total
Score Based on Ratings	7	6	5	18

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland H

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	<input type="text"/>
Hydroperiods	D 1.4, H 1.2	<input type="text"/>
Location of outlet <i>(can be added to map of hydroperiods)</i>	D 1.1, D 4.1	<input type="text"/>
Boundary of area within 150 ft of the wetland <i>(can be added to another figure)</i>	D 2.2, D 5.2	<input type="text"/>
Map of the contributing basin	D 4.3, D 5.3	<input type="text"/>
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	<input type="text"/>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	<input type="text"/>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	<input type="text"/>

Wetland name or number: Wetland H

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 <u>What are the characteristics of surface water outflows from the wetland?</u>		
Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 3
D 1.2 <u>Is the soil 2 in. below the surface a true clay or organic soil?</u>		
Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0
D 1.3 <u>What are the characteristics and distribution of persistent plants?</u>		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5
D 1.4 <u>What are the characteristics of seasonal ponding or inundation in the wetland area?</u>		
Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0
Total for D 1:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?		
D 2.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.2 <u>Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.3 <u>Are there septic systems within 250ft of the wetland?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.4 <u>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</u>		
Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland H**D 2.5** What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for D 2:**1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value**

[X] 2-4 = H [] 1 = M [] 0 = L

*Record the rating on the first page***DEPRESSIONAL AND FLATS WETLANDS****Hydrologic Functions** - Indicators that the site functions to reduce flooding and stream degradation**D 4.0** Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 4**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 0

Wetland name or number: Wetland H

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 3
Total for D 4:		7

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 0
Total for D 5:		0

Rating of Landscape Potential

[] 3 = H [] 1-2 = M [X] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for D 6:		4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland H

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 1**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 0

Wetland name or number: Wetland H

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score:	
Total for H 1: 3	

Rating of Site Potential

[] 15-18 = H [] 7-14 = M [X] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland H

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland H

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland H

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland H

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

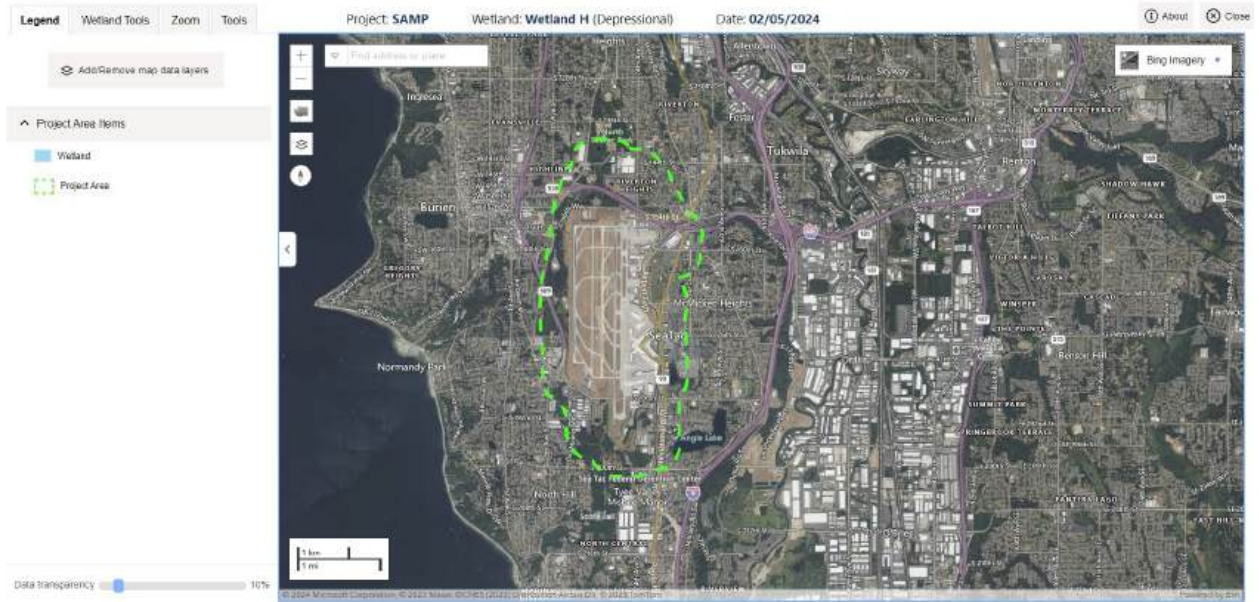
Result:

Wetland name or number: Wetland H

Category of wetland based on Special Characteristics

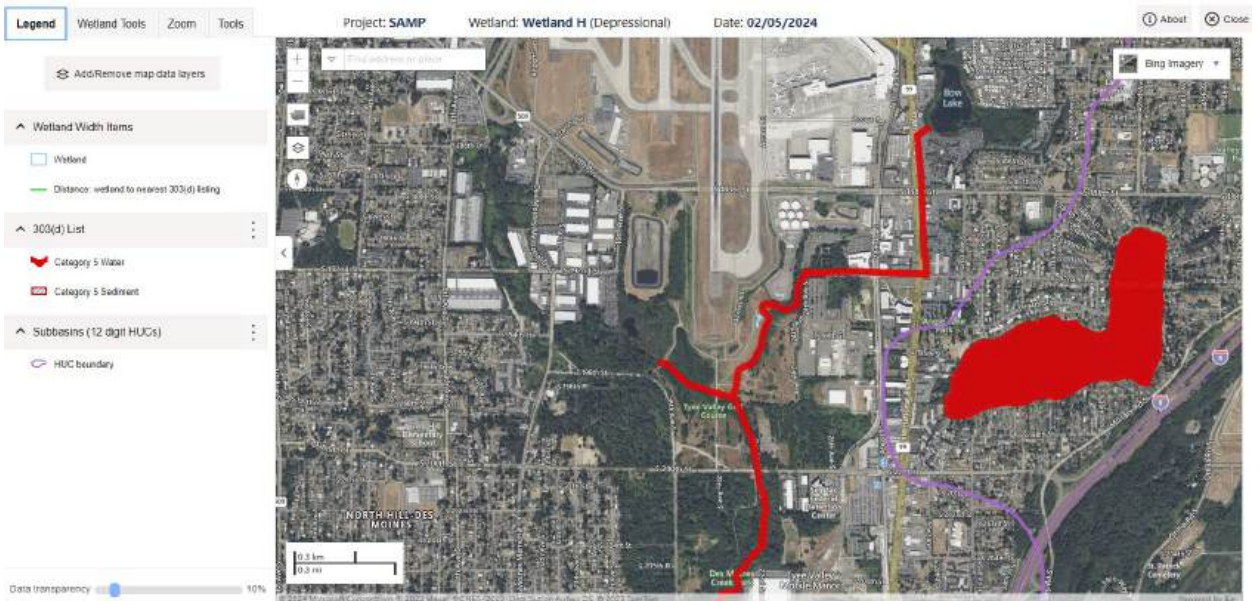
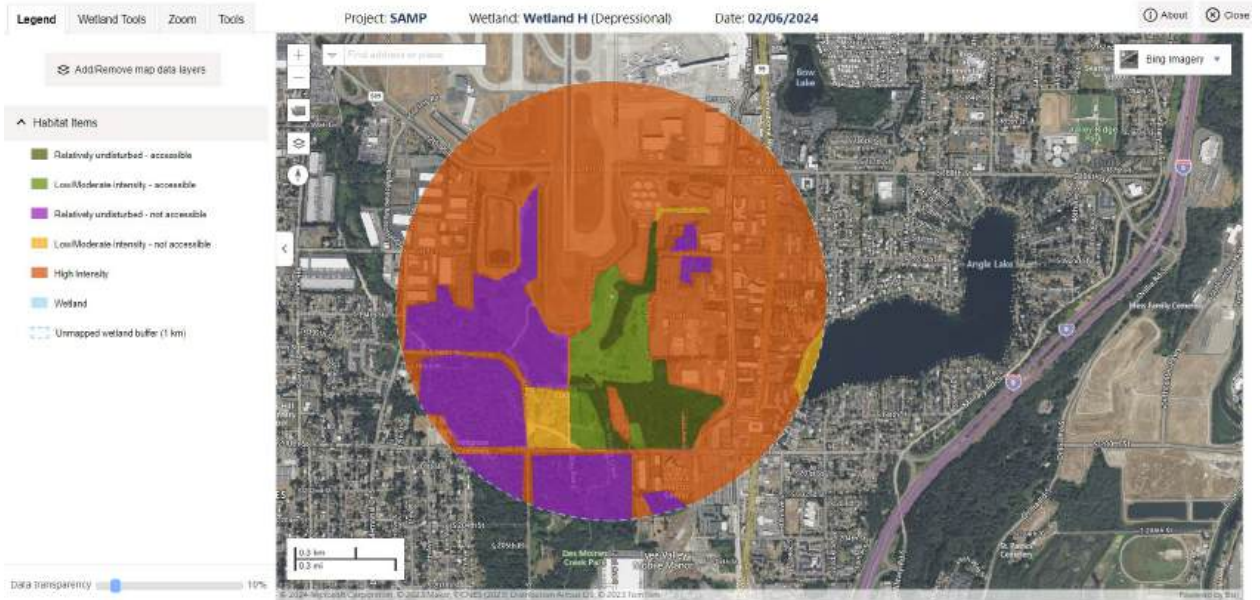
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland N3

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland N3 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **Category I** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

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

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

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	H	M	H	
Landscape Potential	M	M	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	7	22

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	Category I
Forested	
Coastal Lagoon	
Interdunal	
None of the above	

Wetland name or number: Wetland N3

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	<input type="text"/>
Hydroperiods	D 1.4, H 1.2	<input type="text"/>
Location of outlet <i>(can be added to map of hydroperiods)</i>	D 1.1, D 4.1	<input type="text"/>
Boundary of area within 150 ft of the wetland <i>(can be added to another figure)</i>	D 2.2, D 5.2	<input type="text"/>
Map of the contributing basin	D 4.3, D 5.3	<input type="text"/>
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	<input type="text"/>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	<input type="text"/>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	<input type="text"/>

Wetland name or number: Wetland N3

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**D 1.0 Does the site have the potential to improve water quality?****D 1.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 2

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 4

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 4

Total for D 1: 15**Rating of Site Potential** 12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?**D 2.1** Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 0

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 1

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland N3**D 2.5** What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for D 2:**2****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 0**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****3****Rating of Value**

[X] 2-4 = H [] 1 = M [] 0 = L

*Record the rating on the first page***DEPRESSIONAL AND FLATS WETLANDS****Hydrologic Functions** - Indicators that the site functions to reduce flooding and stream degradation**D 4.0** Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 2**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 3

Wetland name or number: Wetland N3

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 3
Total for D 4:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		1

Rating of Landscape Potential

[] 3 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland N3

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 4**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 2

Wetland name or number: Wetland N3

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 3	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input checked="" type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input checked="" type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 5	
Total for H 1: 16	

Rating of Site Potential

15-18 = H 7-14 = M 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland N3

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input checked="" type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland N3

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland N3

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.3

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

**Result: Category I Bog
Wetland**

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

**Result: Not a Forested
Wetland**

Wetland name or number: Wetland N3

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

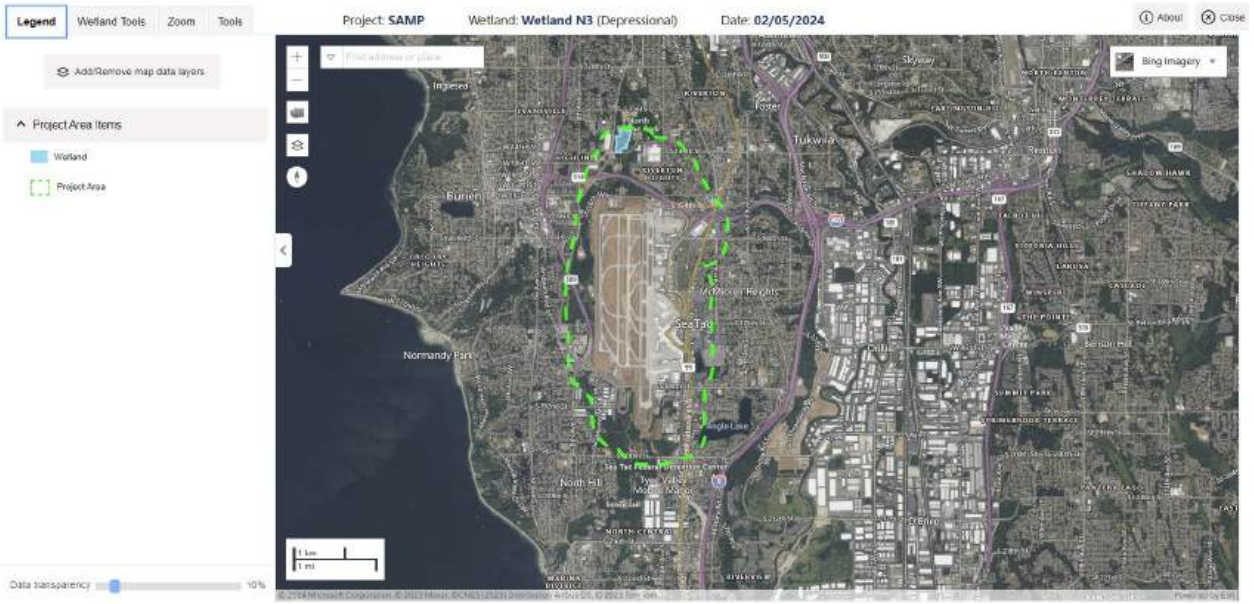
Result:

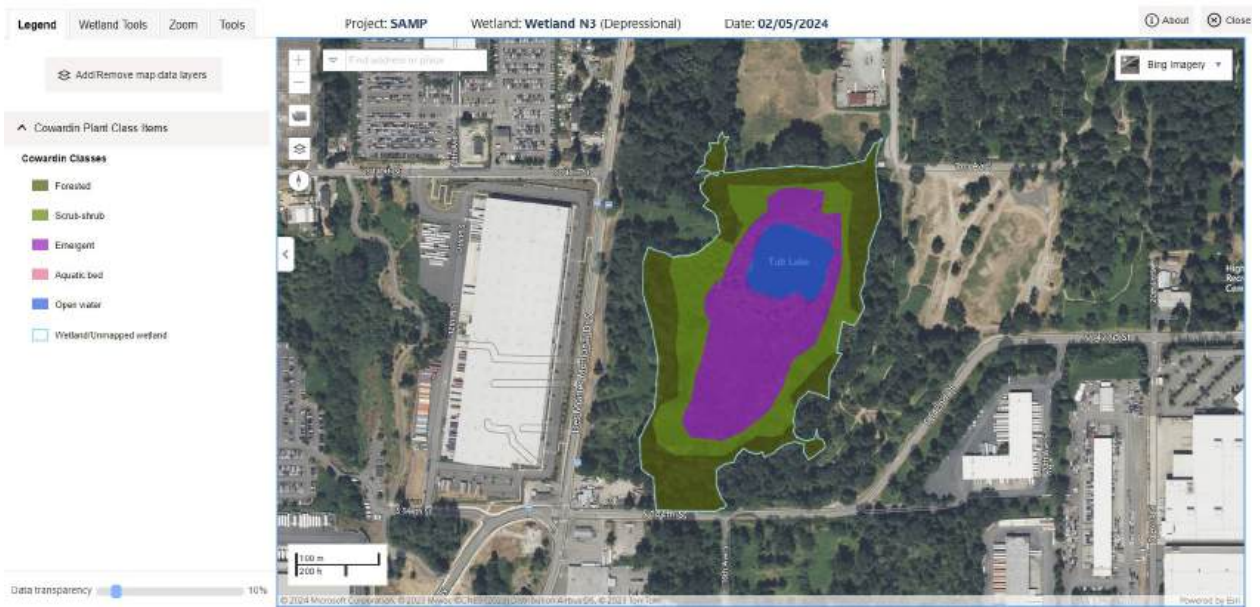
Wetland name or number: Wetland N3

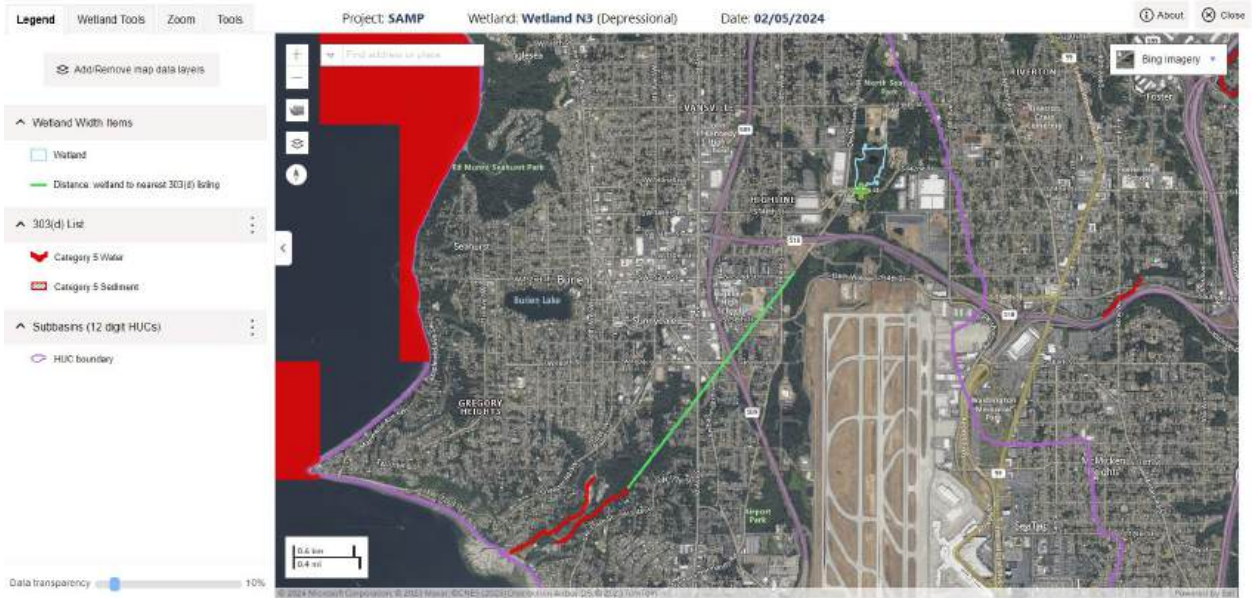
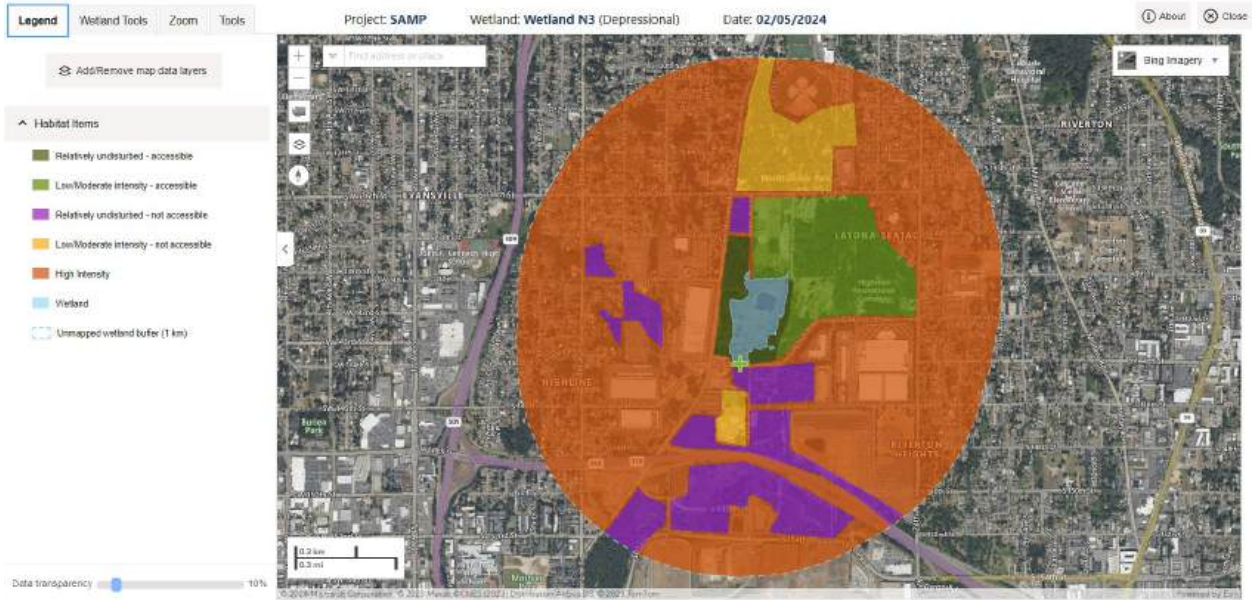
Category of wetland based on Special Characteristics

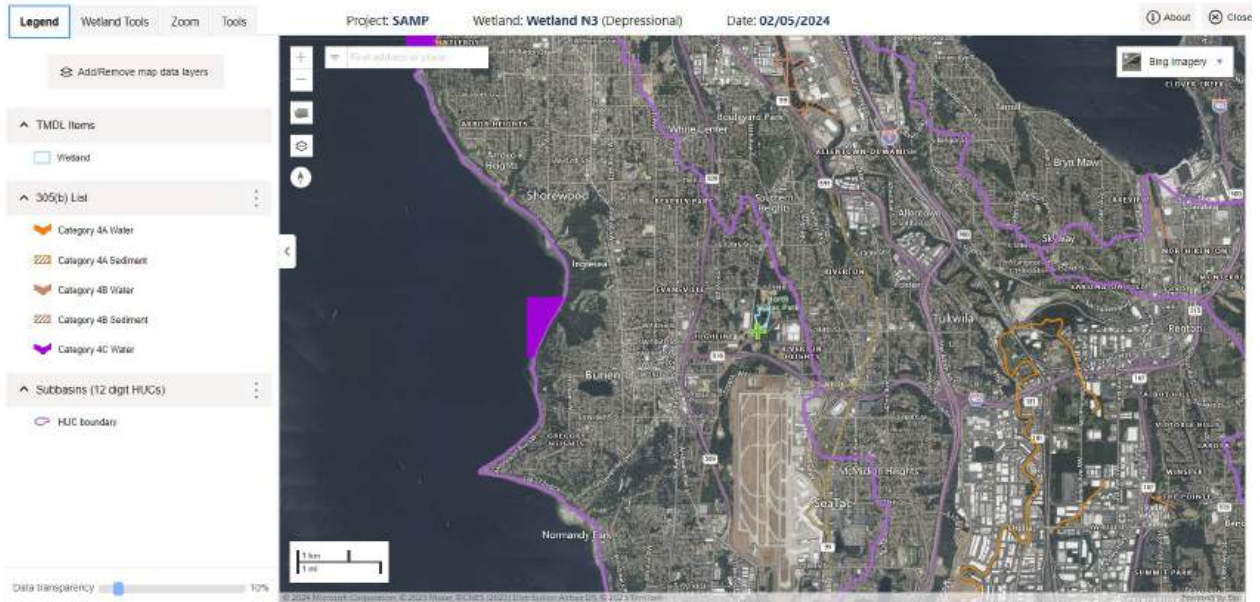
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category:
Category I**









Wetland name or number: Wetland N4

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland N4 Date of site visit: 12/15/2023

Rated By: Kaylee Moser Trained by Ecology? Yes No Date of Training: 06/01/2018

HGM Class used for rating: Slope

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category IV] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	L	L	M	
Landscape Potential	M	L	L	
Value	H	H	L	Total
Score Based on Ratings	6	5	4	15

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland N4

Maps and figures required to answer questions correctly for Western Washington

Slope Wetlands

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

Wetland name or number: Wetland N4

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**S 1.0 Does the site have the potential to improve water quality?****S 1.1** What are the characteristics of the average slope of the wetland?

Slope is 1% or less	points = 3	
Slope is >1%-2%	points = 2	
Slope is >2%-5%	points = 1	
Slope is greater than 5%	points = 0	Score: 3

S 1.2 What is the soil 2in below the surface or duff layer?

Mapped as true clay or organic (muck or peat)	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	Score: 0

S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants

Dense, uncut, herbaceous plants cover >90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants cover >50% of the wetland area	points = 3	
Dense, woody, plants cover >50% of the wetland area	points = 2	
Dense, uncut, herbaceous plants cover >25% of the wetland area	points = 1	
Does not meet any of the criteria above for plants	points = 0	Score: 2

Total for S 1: **5****Rating of Site Potential**

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

S 2.0 Does the landscape have the potential to support the water quality function of the site?**S 2.1** Is >10% of the area within 150ft on the uphill side of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?

Yes	points = 1	
No	points = 0	Score: 1

S 2.3 What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for S 2: **1****Rating of Landscape Potential**

[] 3-4 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland N4

S 3.0 Is the water quality improvement provided by the site valuable to society?		
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	points = 1	
No	points = 0	Score: 0
S 3.2 Is the wetland in a basin or sub-basin where water quality is an issue?		
Yes	points = 1	
No	points = 0	Score: 1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	Score: 2
Total for S 3:		3

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

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

S 4.0 Does the site have the potential to reduce flooding and erosion?		
S 4.1 What are the characteristics of the plants that reduce the velocity of surface flows during storms?		
Dense, uncut, rigid plants cover >90% of the wetland area	points = 1	
All other conditions	points = 0	Score: 0
Total for S 4:		0

Rating of Site Potential

1 = M 0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions 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	points = 1	
No	points = 0	Score: 0
Total for S 5:		0

Rating of Landscape Potential

1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland N4

S 6.0 Are the hydrologic functions provided by the site valuable to society?		
S 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
There are no problems with flooding downstream of the wetland	points = 0	Score: 2
S 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for S 6:		2

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland N4

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 4

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 1

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland N4

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 10	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland N4

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 0
Total for H 3:		0

Rating of Value

[] 2 = H [] 1 = M [X] 0 = L

Record the rating on the first page

Wetland name or number: Wetland N4

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland N4

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland N4

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

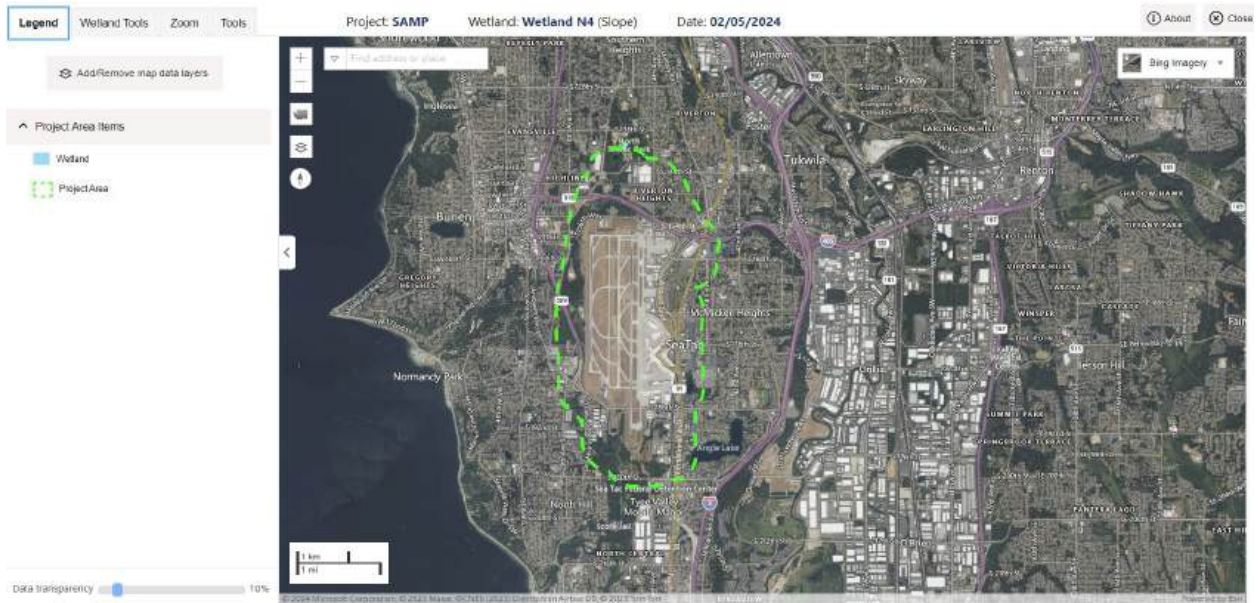
Result:

Wetland name or number: Wetland N4

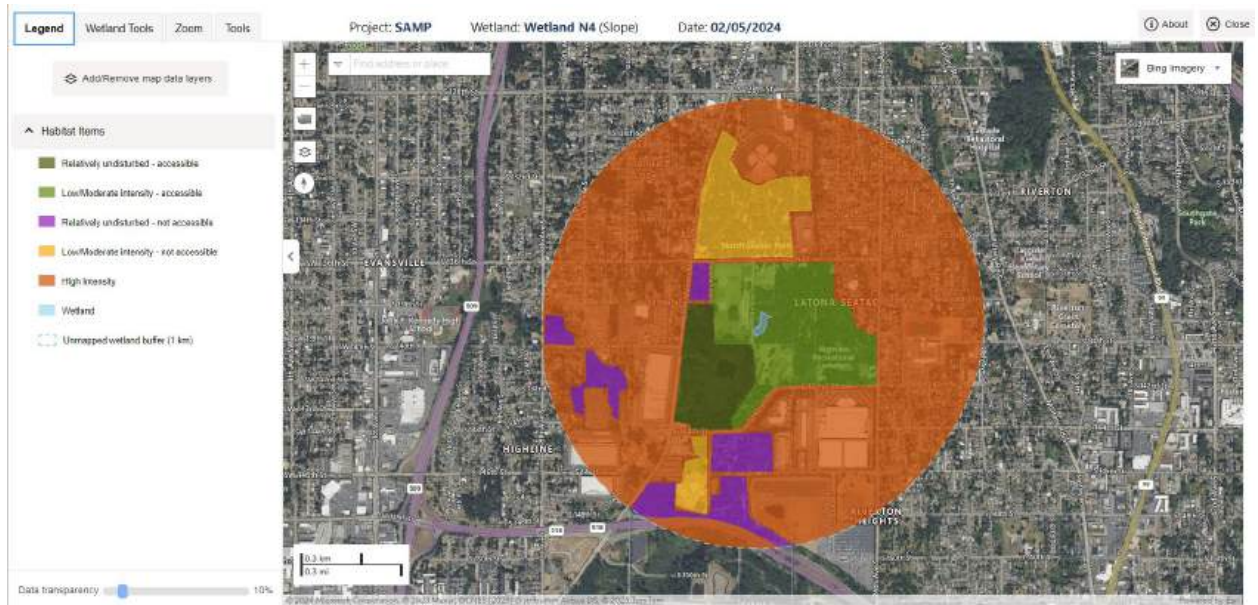
Category of wetland based on Special Characteristics

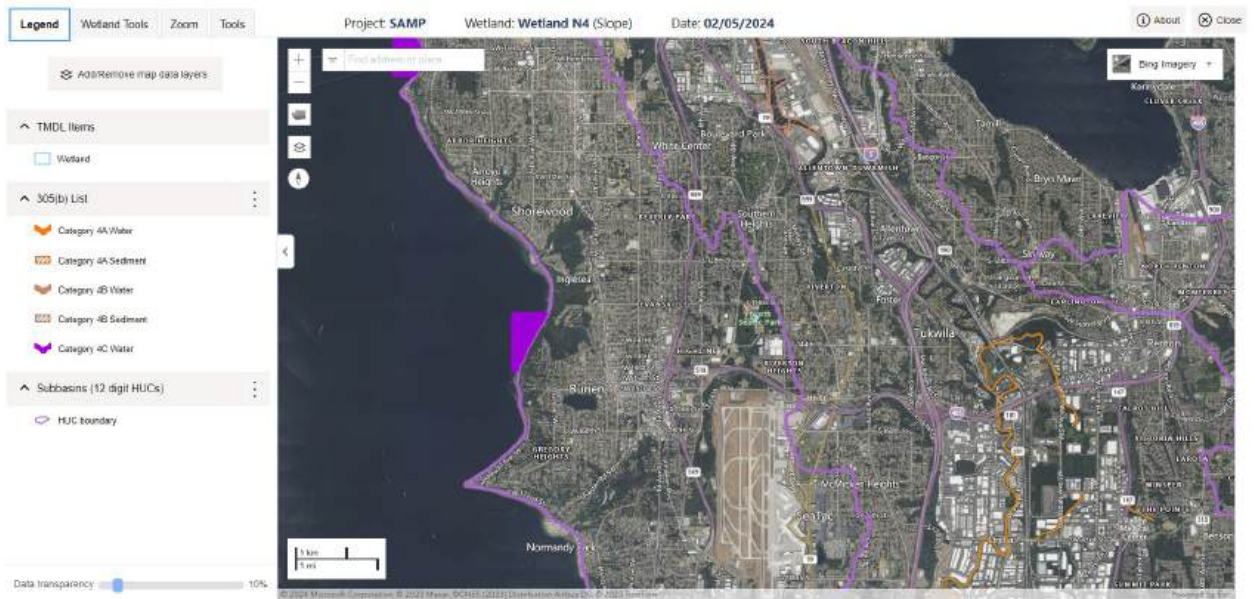
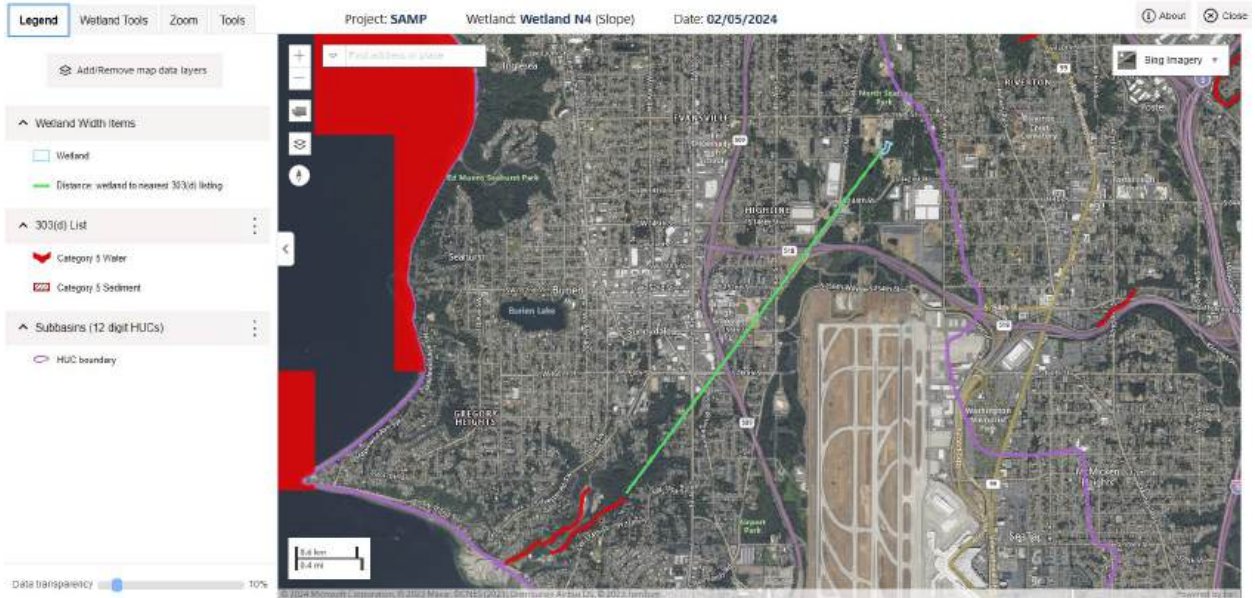
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Add/Remove map data layers

Land Use Items

- Generates excessive runoff
- Generates pollutants
- Generates excessive runoff and pollutants
- Upland within 150' wetland buffer
- Wetland
- Wetland buffer (150')

Data transparency 10%



Wetland name or number: R15

RATING SUMMARY - Western Washington

Name of wetland (or ID#): R15 Date of site visit: 01/03/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: 06/18/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	L	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: R15

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: R15

DEPRESSIONAL AND FLATS WETLANDS

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

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 <u>What are the characteristics of surface water outflows from the wetland?</u>		
Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 1
D 1.2 <u>Is the soil 2 in. below the surface a true clay or organic soil?</u>		
Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0
D 1.3 <u>What are the characteristics and distribution of persistent plants?</u>		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5
D 1.4 <u>What are the characteristics of seasonal ponding or inundation in the wetland area?</u>		
Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 2
Total for D 1:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?		
D 2.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.2 <u>Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.3 <u>Are there septic systems within 250ft of the wetland?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.4 <u>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</u>		
Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: R15**D 2.5** What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0** Is the water quality improvement provided by the site valuable to society?**D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****4****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

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

D 4.0 Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 0**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 0

Wetland name or number: R15

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 0
Total for D 4:		0

Rating of Site Potential

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

D 5.0 <u>Does the landscape have the potential to support hydrologic functions of the site?</u>		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 <u>Are the hydrologic functions provided by the site valuable to society?</u>		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: R15

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: R15

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: R15

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: R15

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: R15

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: R15

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

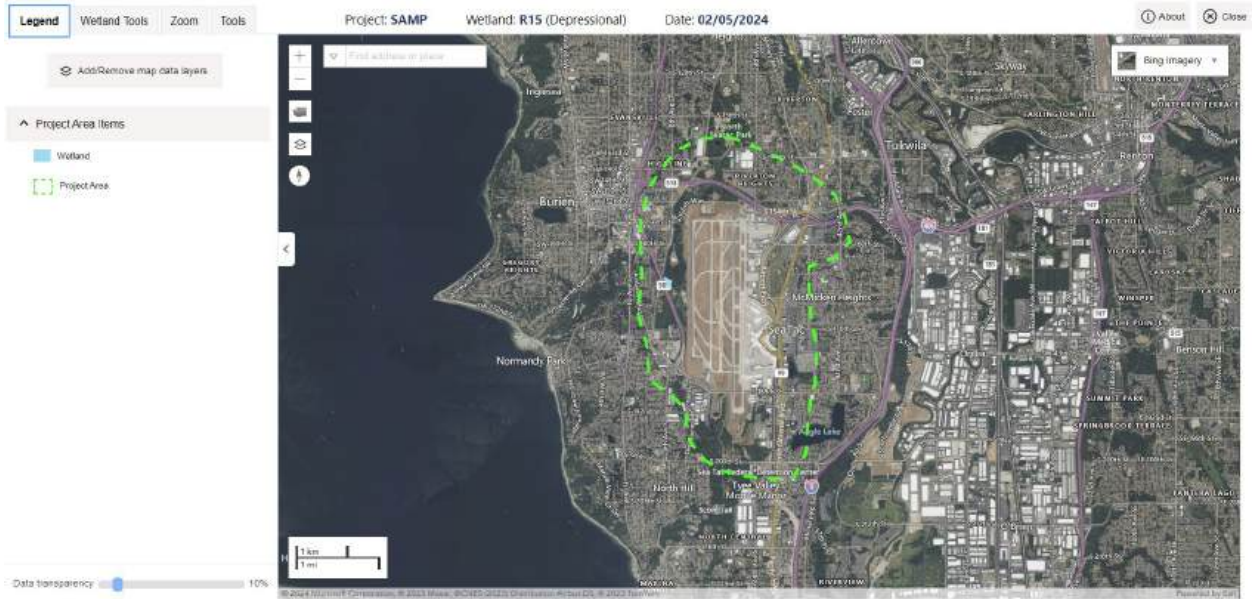
Result:

Wetland name or number: R15

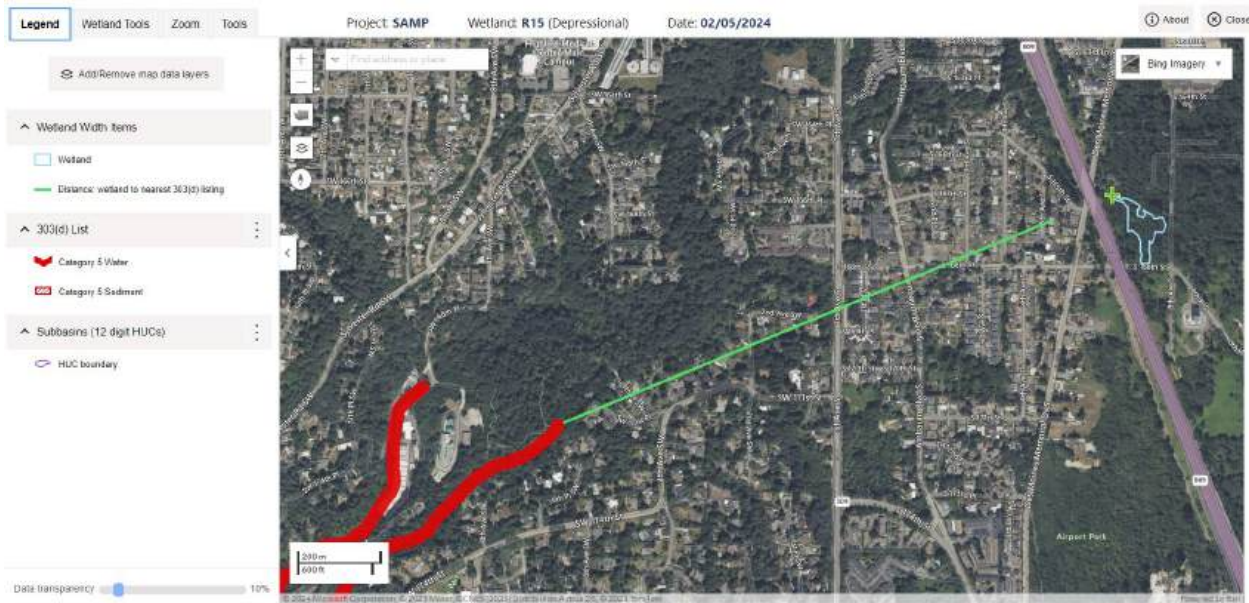
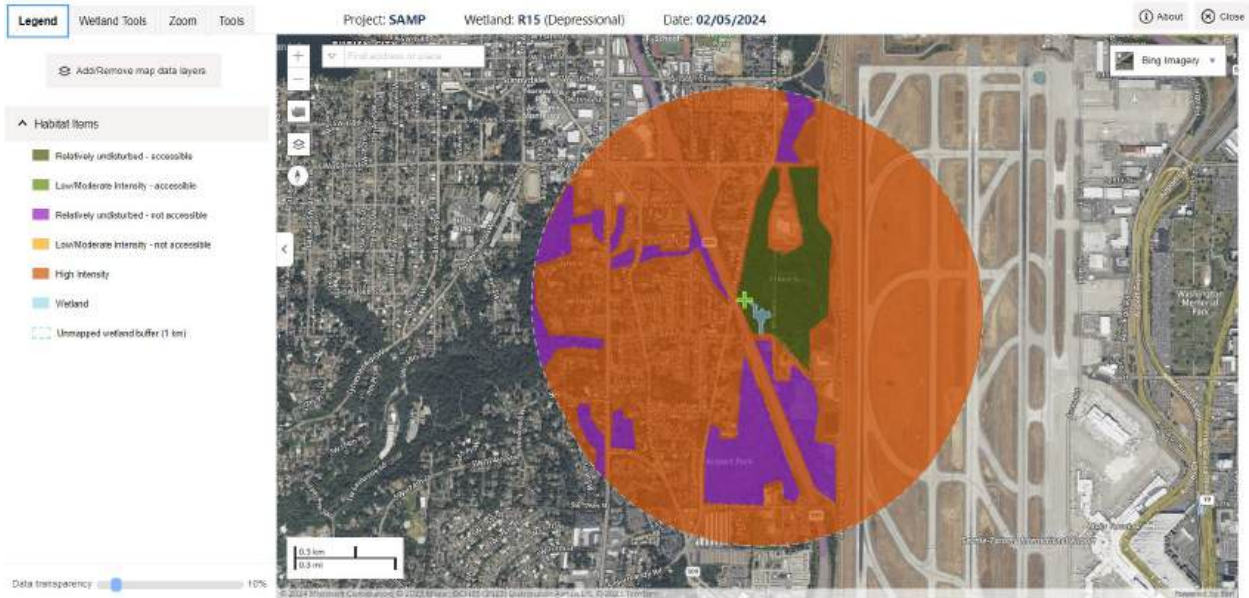
Category of wetland based on Special Characteristics

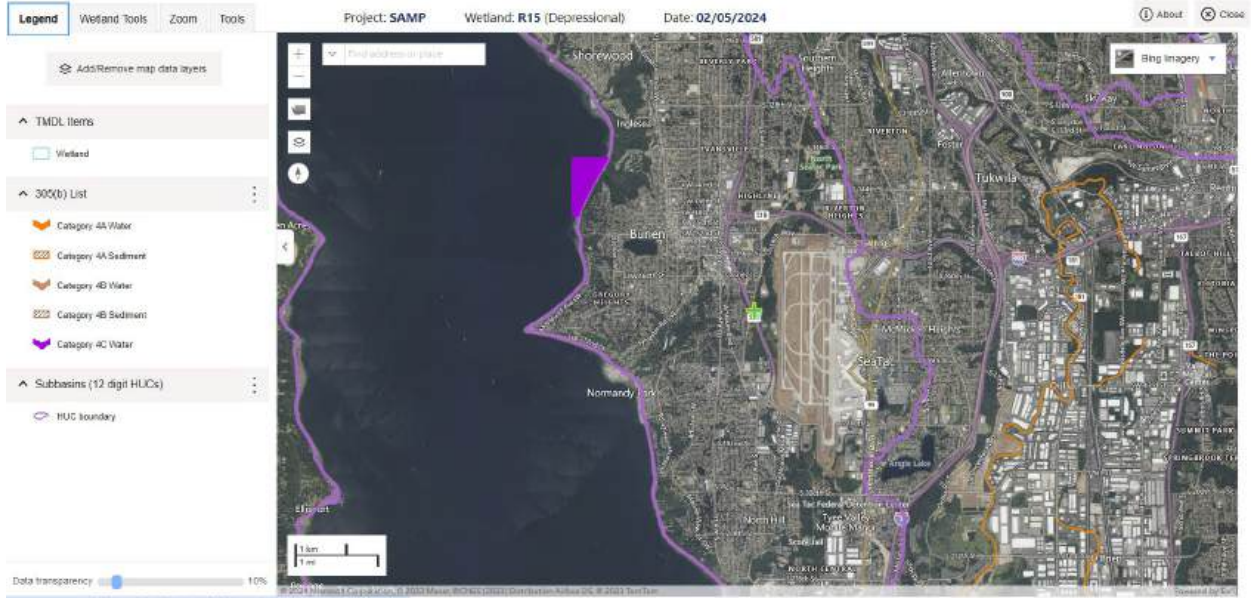
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: R15

RATING SUMMARY - Western Washington

Name of wetland (or ID#): R15 Date of site visit: 01/03/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: 06/18/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category II]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	L	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: R15

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Wetland name or number: R15

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 <u>What are the characteristics of surface water outflows from the wetland?</u>		
Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 1
D 1.2 <u>Is the soil 2 in. below the surface a true clay or organic soil?</u>		
Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0
D 1.3 <u>What are the characteristics and distribution of persistent plants?</u>		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5
D 1.4 <u>What are the characteristics of seasonal ponding or inundation in the wetland area?</u>		
Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 2
Total for D 1:		8

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?		
D 2.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.2 <u>Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 2.3 <u>Are there septic systems within 250ft of the wetland?</u>		
Yes	points = 1	
No	points = 0	Score: 0
D 2.4 <u>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</u>		
Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: R15**D 2.5** What are the other sources of pollutants coming into the wetland?

airplane exhaust particles

Total for D 2:**3****Rating of Landscape Potential** 3-4 = H 1-2 = M 0 = L*Record the rating on the first page***D 3.0 Is the water quality improvement provided by the site valuable to society?****D 3.1** Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.2** Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?

Yes points = 1

No points = 0

Score: 1**D 3.3** Has the site been identified in a watershed or local plan as important for maintaining water quality?

Yes points = 2

No points = 0

Score: 2**Total for D 3:****4****Rating of Value** 2-4 = H 1 = M 0 = L*Record the rating on the first page*

DEPRESSIONAL AND FLATS WETLANDS

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

D 4.0 Does the site have the potential to reduce flooding and erosion?**D 4.1** What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet. points = 4

Wetland has an intermittently flowing, or highly constricted, outlet. points = 2

Wetland is a flat depression whose outlet is a permanently flowing ditch. points = 1

Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

Score: 0**D 4.2** What is the depth of storage during the wet periods?

Marks of ponding are 3ft or more above the surface or bottom of the outlet. points = 7

Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet. points = 5

Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet. points = 3

The wetland is a "headwater" wetland. points = 3

The wetland is flat but has small depressions on the surface that trap water. points = 1

Marks of ponding are less than 0.5ft (6in). points = 0

Score: 0

Wetland name or number: R15

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 0
Total for D 4:		0

Rating of Site Potential

[] 12-16 = H [] 6-11 = M [X] 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

[X] 3 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 0
Total for D 6:		2

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: R15

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: R15

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: R15

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: R15

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: R15

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: R15

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

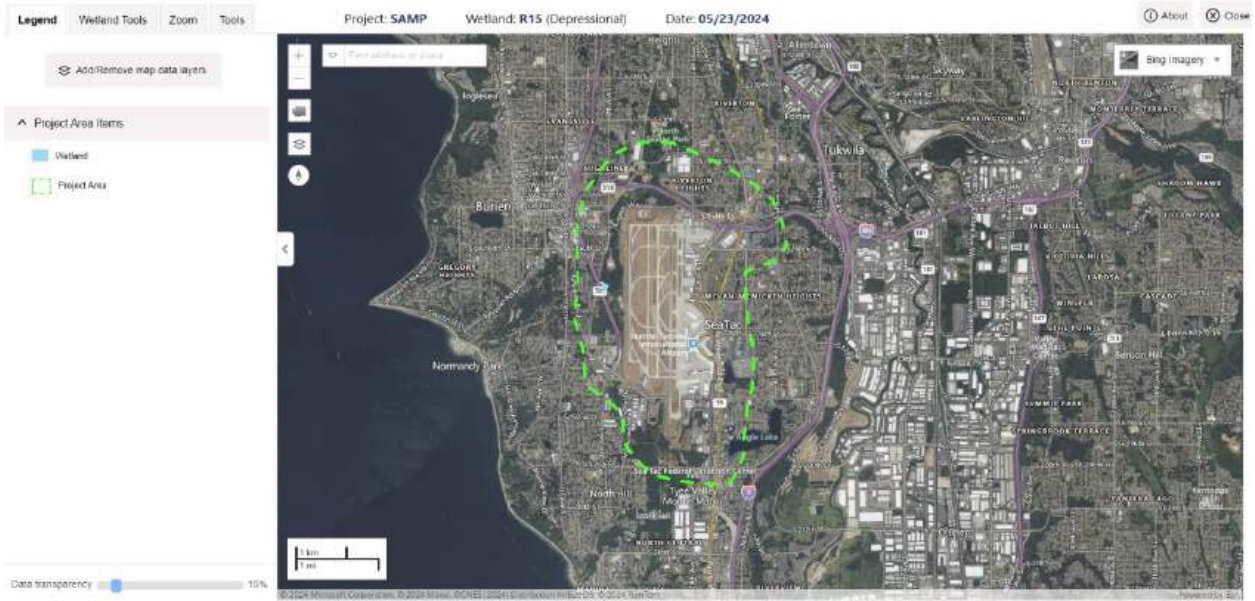
Result:

Wetland name or number: R15

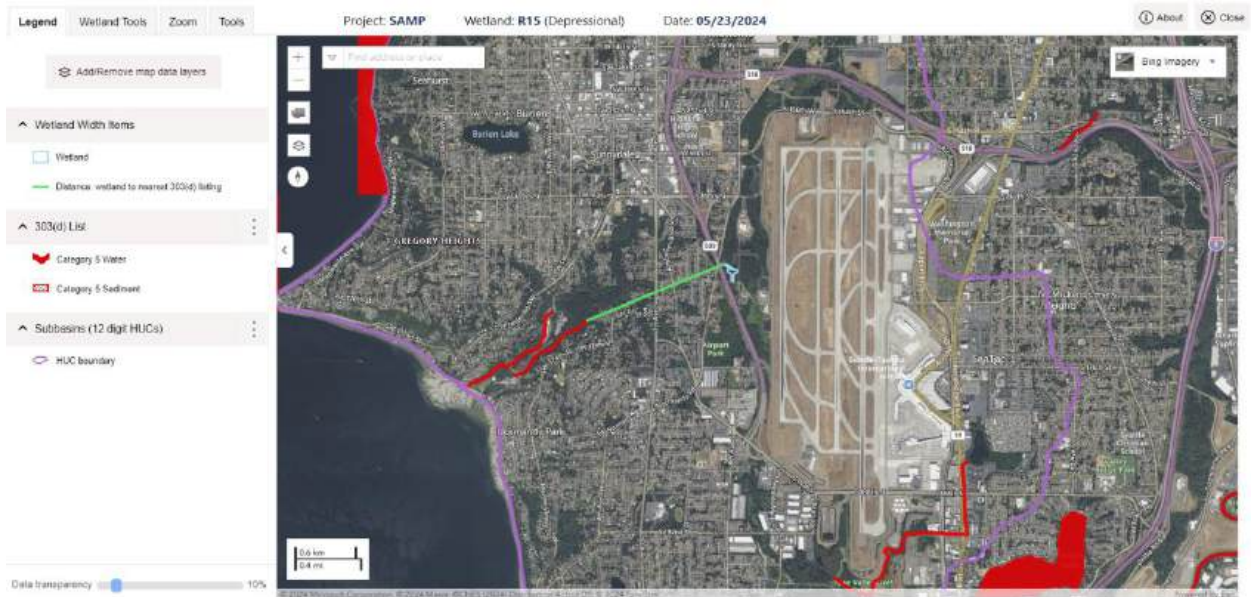
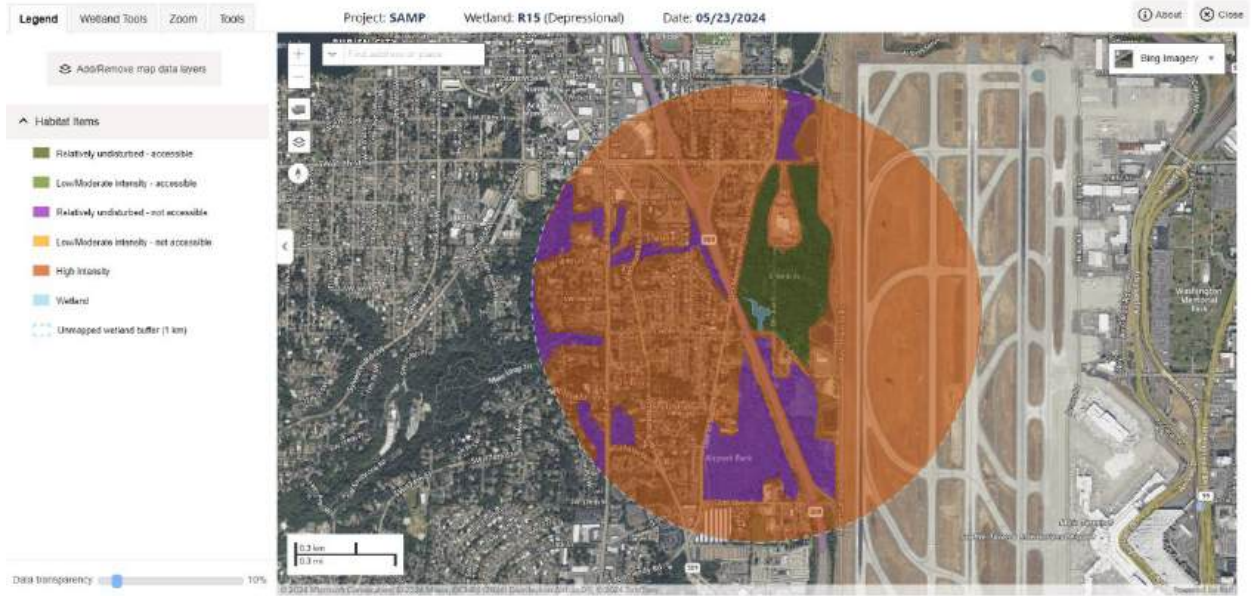
Category of wetland based on Special Characteristics

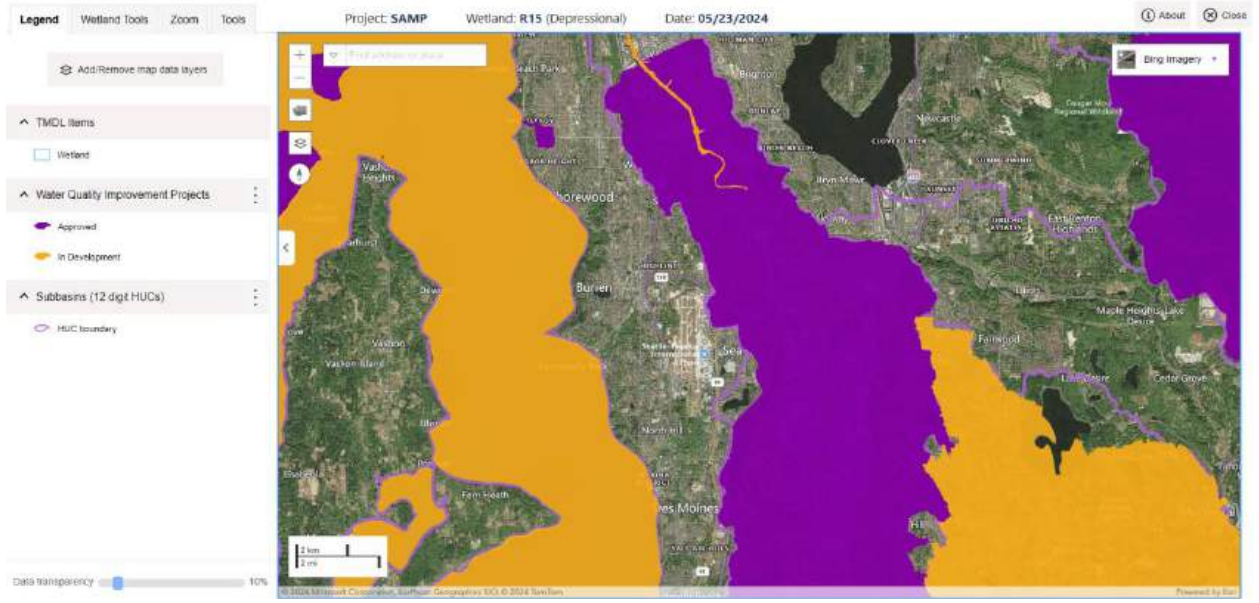
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: R15b

RATING SUMMARY - Western Washington

Name of wetland (or ID#): R15b Date of site visit: 02/08/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: 06/18/2018

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	M	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: R15b

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: R15b

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

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

R 1.0 Does the site have the potential to improve water quality?

R 1.1 What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 2

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 8

Total for R 1: **10**

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?

R 2.1 Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

airplane exhaust

Total for R 2: **4**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: R15b

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		3

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

<u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u>		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 2
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		9

Rating of Site Potential

 12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: R15b

R 5.0 Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1 <u>Is the stream or river adjacent to the wetland downcut?</u>		
Yes	points = 0	
No	points = 1	Score: 0
R 5.2 <u>Does the up-gradient watershed include a UGA or incorporated area?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 5.3 <u>Is the up-gradient stream or river controlled by dams?</u>		
Yes	points = 0	
No	points = 1	Score: 1
Total for R 5:		2

Rating of Landscape Potential

[] 3 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 6:		4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: R15b

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: R15b

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: R15b

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: R15b

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: R15b

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: R15b

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

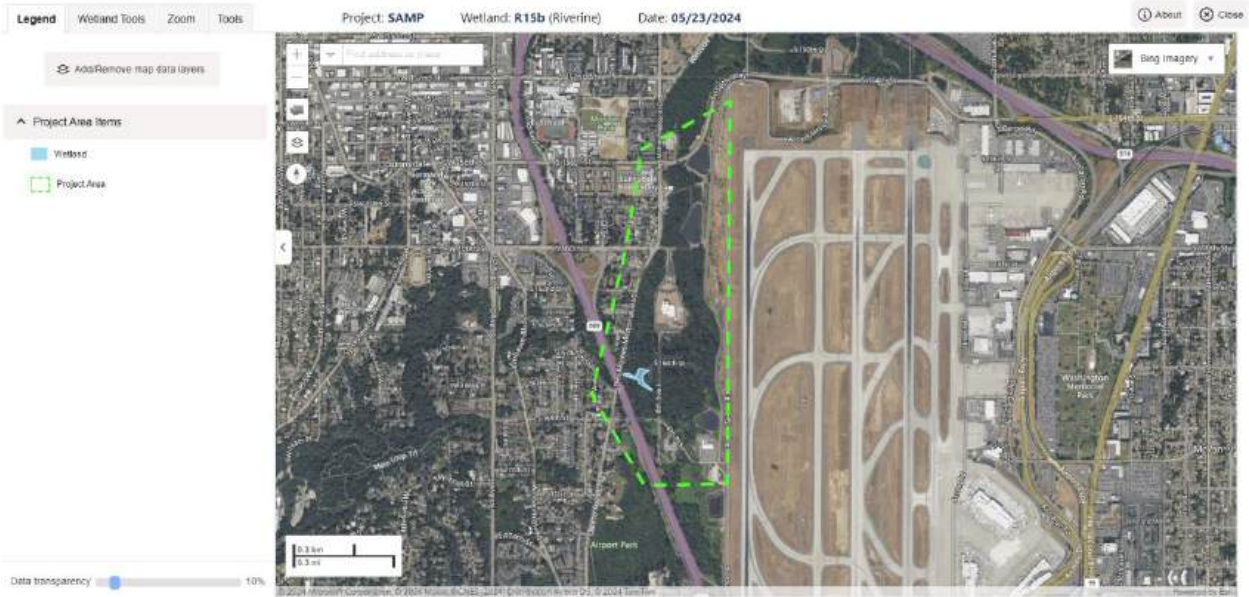
Result:

Wetland name or number: R15b

Category of wetland based on Special Characteristics

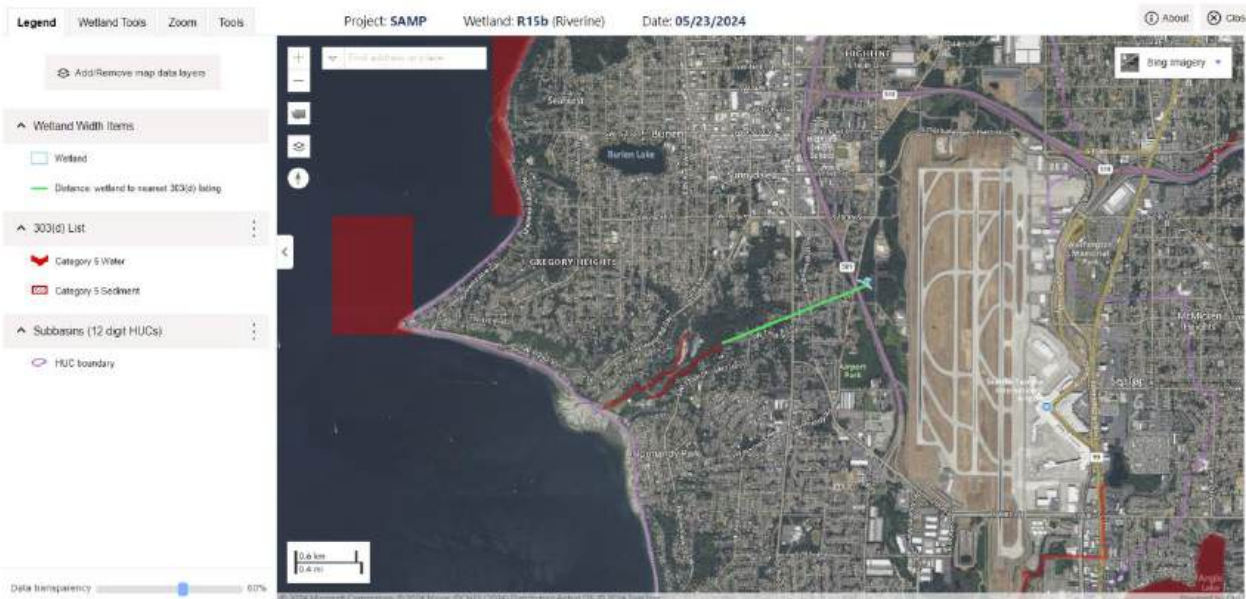
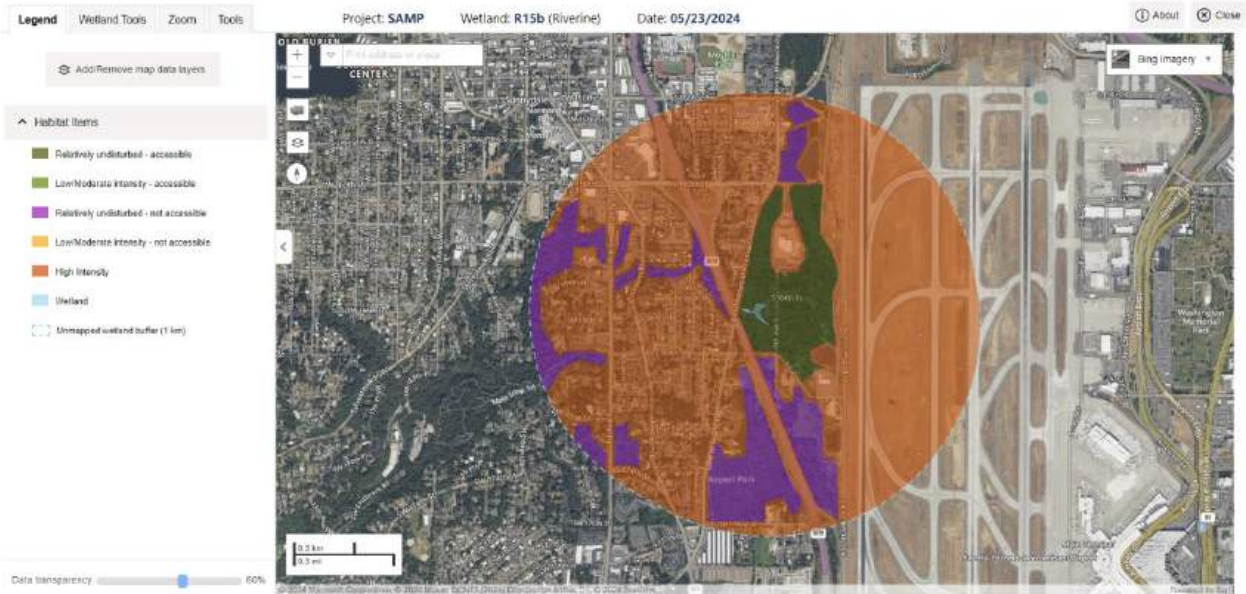
If you answered No for all types, enter "Not Applicable" on Summary Form

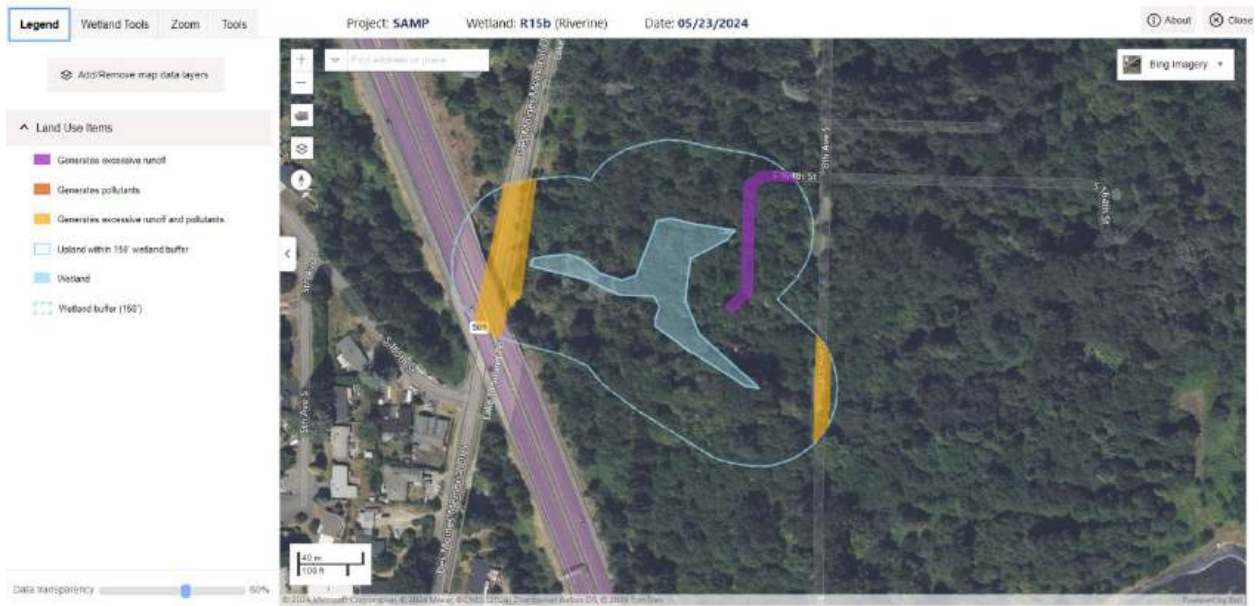
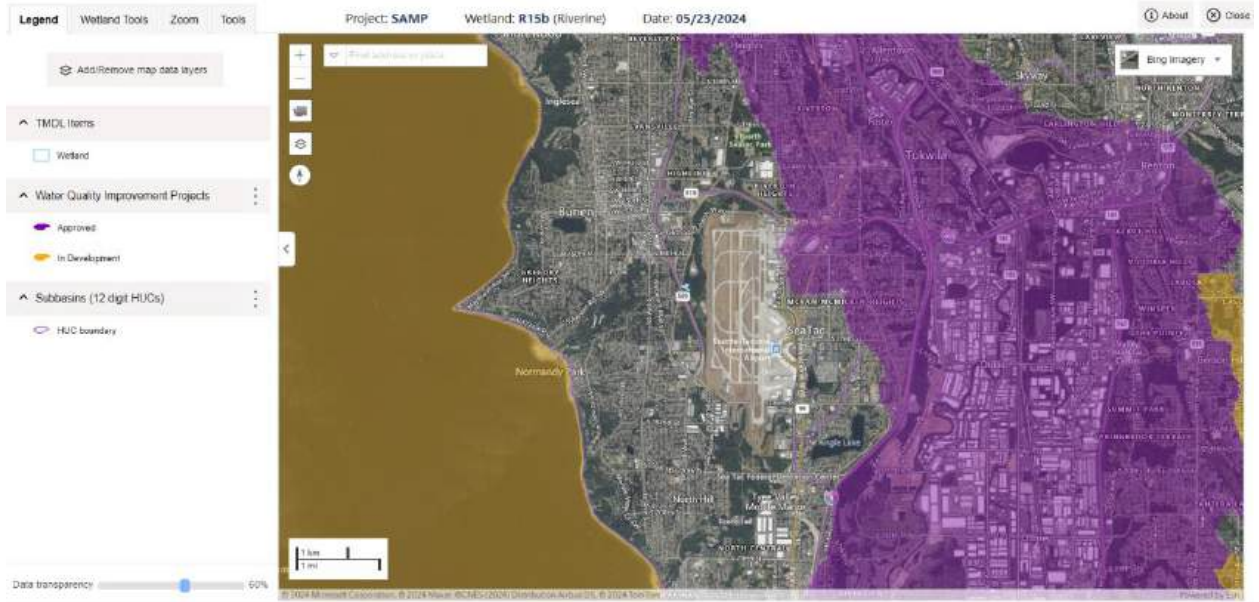
**Final Category: Not
Applicable**











Wetland name or number: Wetland R14a

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland R14a Date of site visit: 02/08/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: 06/18/2018

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	M	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland R14a

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: Wetland R14a

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**R 1.0 Does the site have the potential to improve water quality?****R 1.1** What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 2

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 8

Total for R 1: **10****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?**R 2.1** Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

airplane exhaust

Total for R 2: **4**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland R14a

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		3

Rating of Value

 2-4 = H 1 = M 0 = L

Record the rating on the first page

<u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u>		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 2
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		9

Rating of Site Potential

 12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland R14a

R 5.0 Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1 <u>Is the stream or river adjacent to the wetland downcut?</u>		
Yes	points = 0	
No	points = 1	Score: 0
R 5.2 <u>Does the up-gradient watershed include a UGA or incorporated area?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 5.3 <u>Is the up-gradient stream or river controlled by dams?</u>		
Yes	points = 0	
No	points = 1	Score: 1
		Total for R 5: 2

Rating of Landscape Potential

[] 3 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
		Total for R 6: 4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland R14a

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland R14a

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland R14a

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland R14a

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland R14a

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland R14a

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

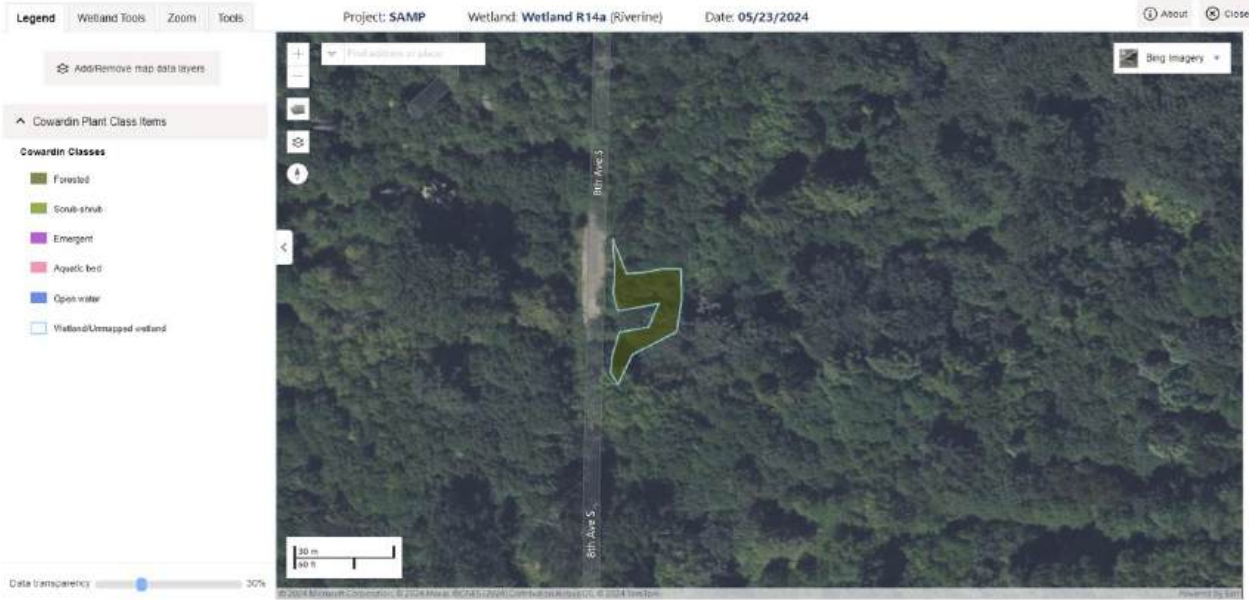
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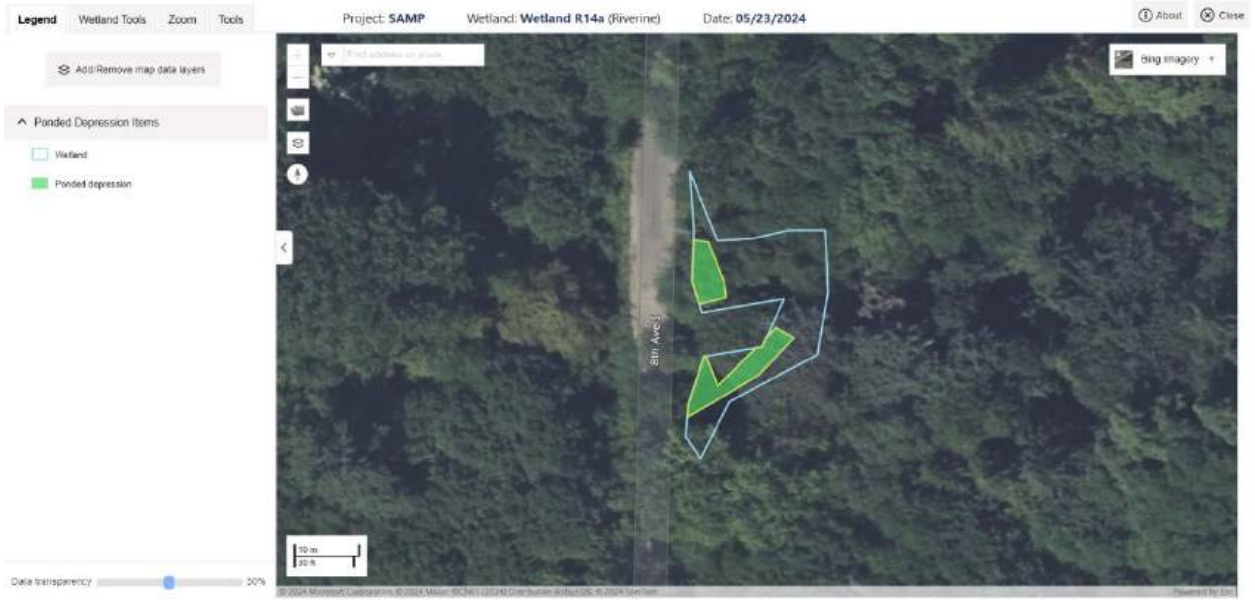
Wetland name or number: Wetland R14a

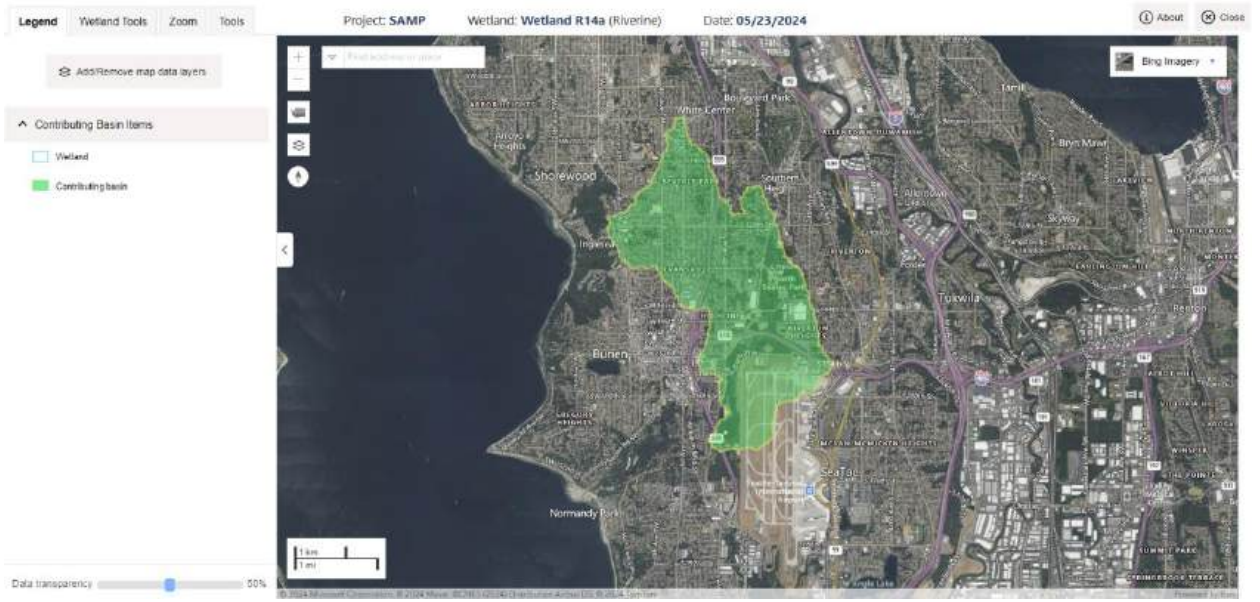
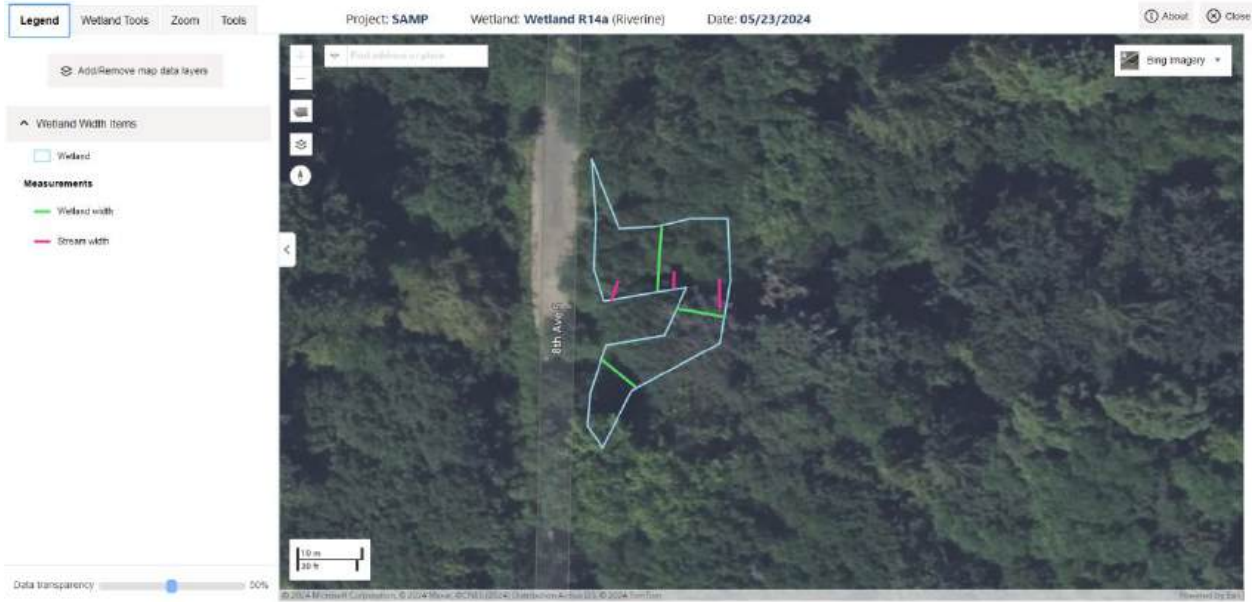
Category of wetland based on Special Characteristics

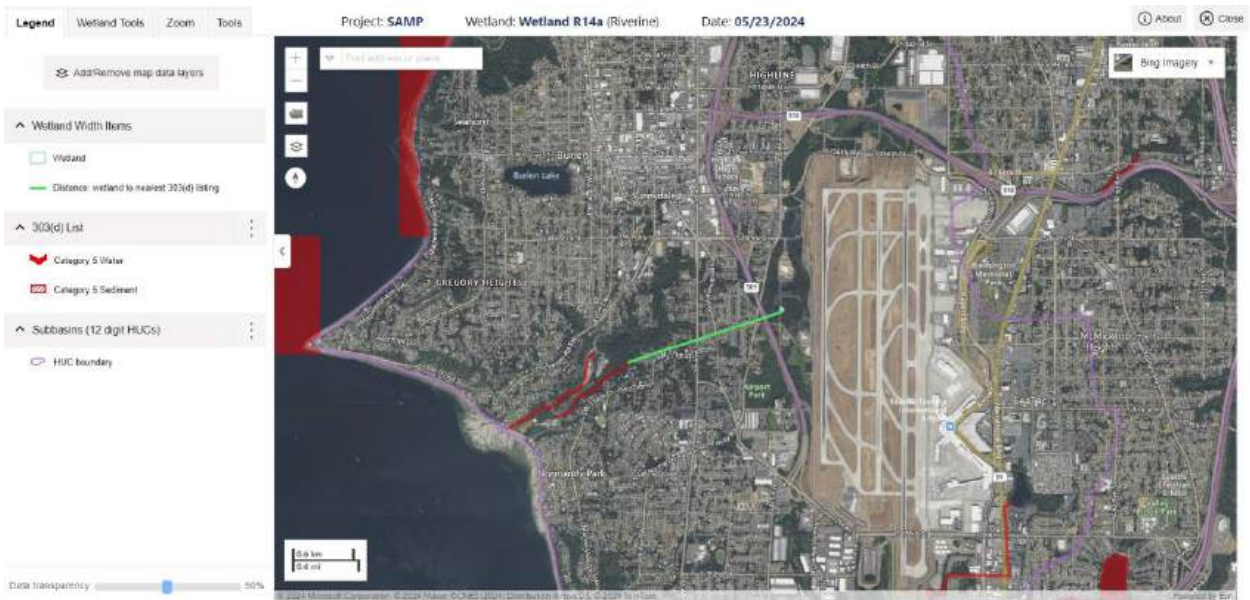
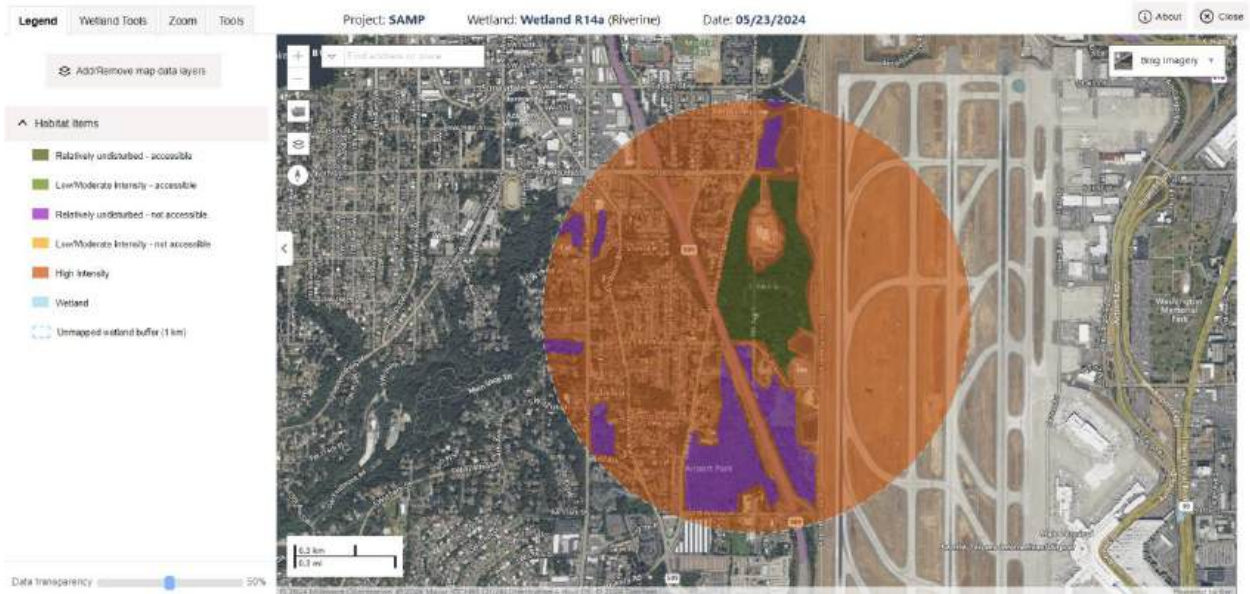
If you answered No for all types, enter "Not Applicable" on Summary Form

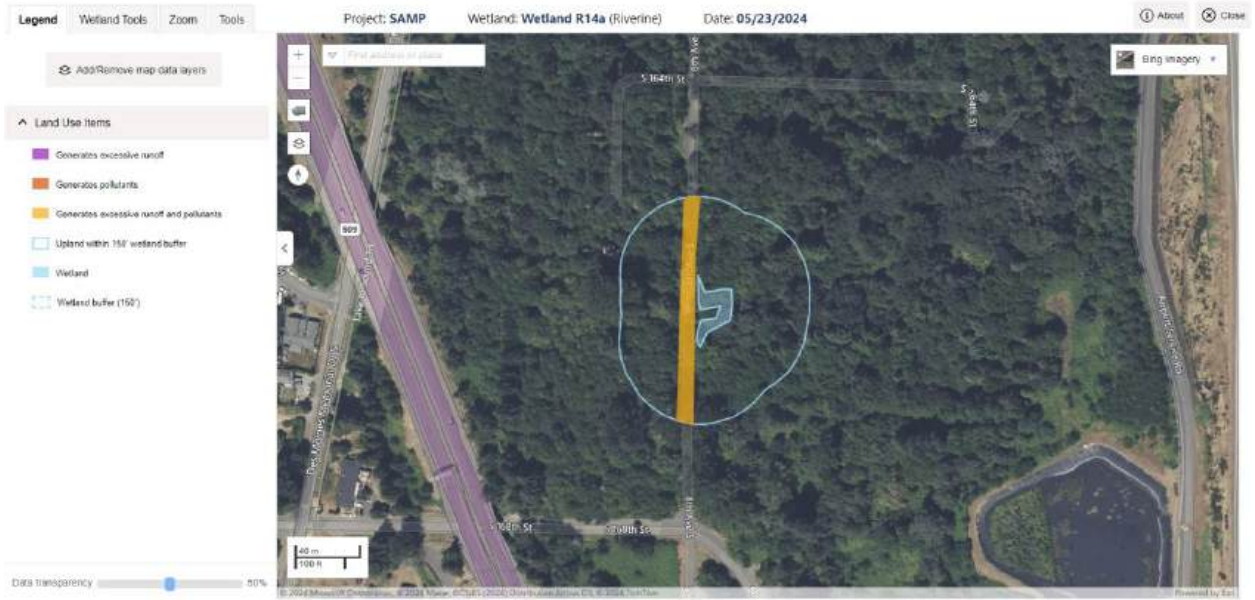
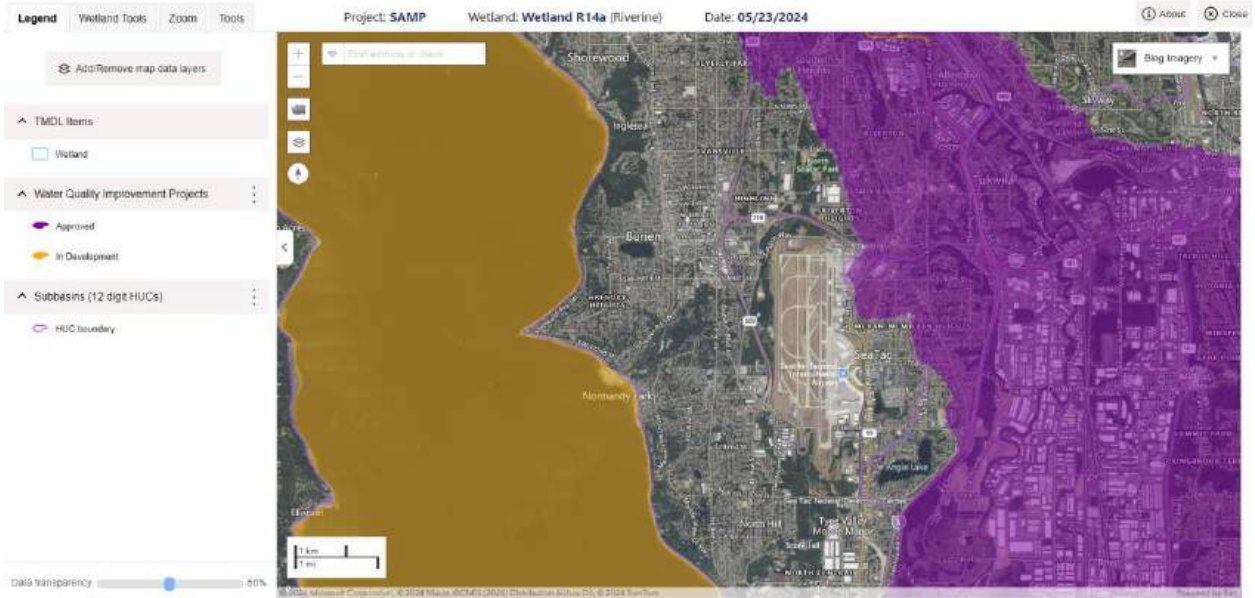
**Final Category: Not
Applicable**











Wetland name or number: Wetland R13

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland R13 Date of site visit: 02/08/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: 06/18/2018

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category II]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	M	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland R13

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: Wetland R13

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**R 1.0 Does the site have the potential to improve water quality?****R 1.1** What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 2

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 8

Total for R 1: **10****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?**R 2.1** Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

airplane exhaust

Total for R 2: **4**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland R13

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		3

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

<p><u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u></p> <p>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</p>		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 2
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		9

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland R13

R 5.0 Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1 <u>Is the stream or river adjacent to the wetland downcut?</u>		
Yes	points = 0	
No	points = 1	Score: 0
R 5.2 <u>Does the up-gradient watershed include a UGA or incorporated area?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 5.3 <u>Is the up-gradient stream or river controlled by dams?</u>		
Yes	points = 0	
No	points = 1	Score: 1
Total for R 5:		2

Rating of Landscape Potential

3 = H 1-2 = M 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 6:		4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland R13

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?**H 1.1** What is the structure of the plant community?

- Aquatic Bed
 Emergent
 Scrub-shrub
 Forested
 Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1**H 1.2** What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
 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
 Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2**H 1.3** What is the richness of the plant species in the wetland?

> 19 species	points = 2
5-19 species	points = 1
< 5 species	points = 0

Score: 1

Wetland name or number: Wetland R13

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland R13

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland R13

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland R13

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland R13

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

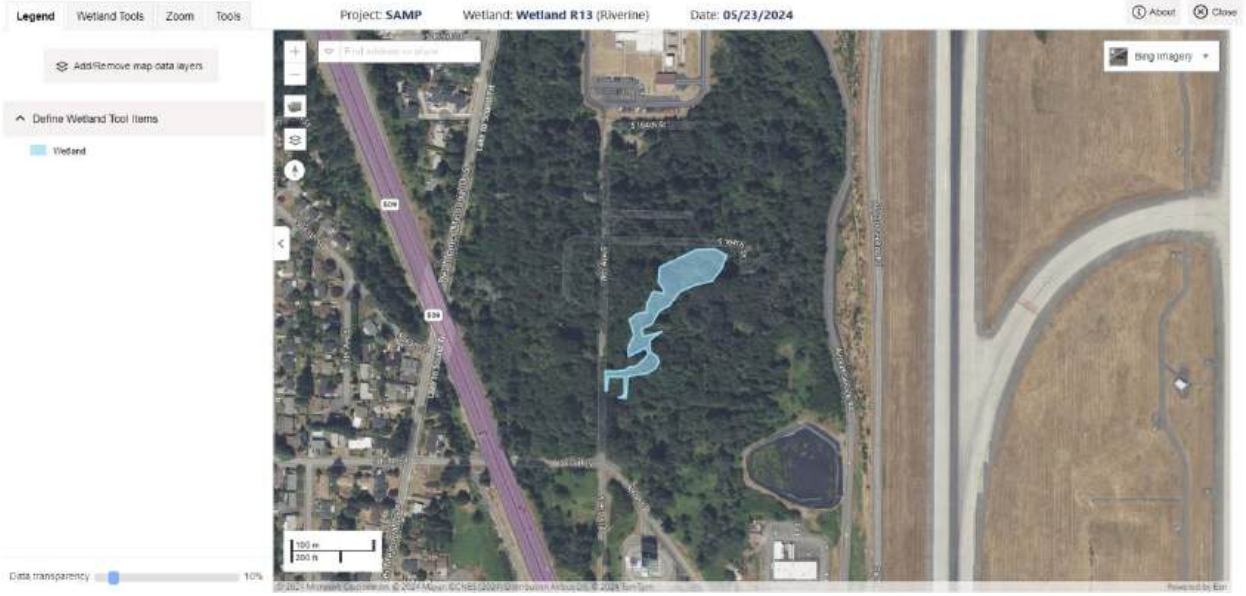
Result:

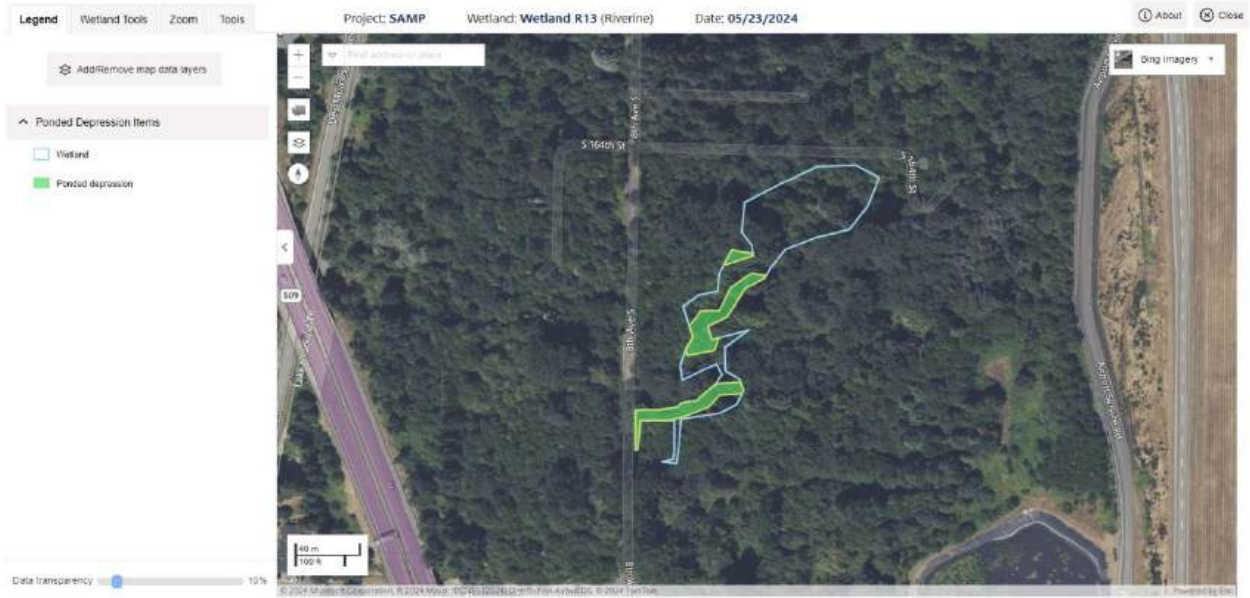
Wetland name or number: Wetland R13

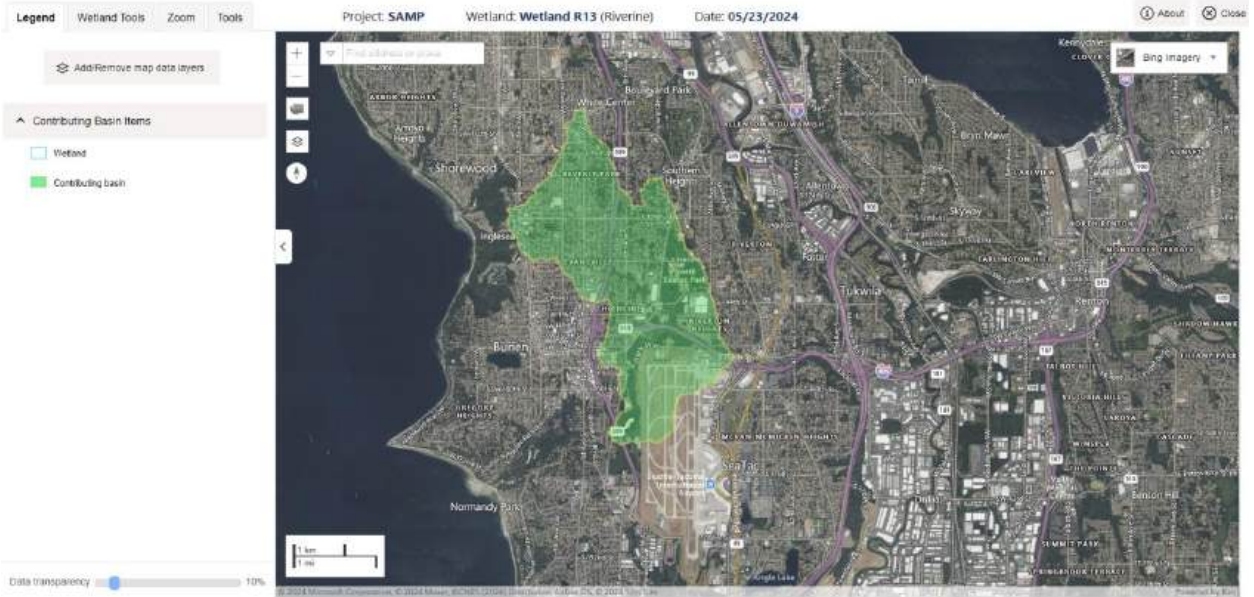
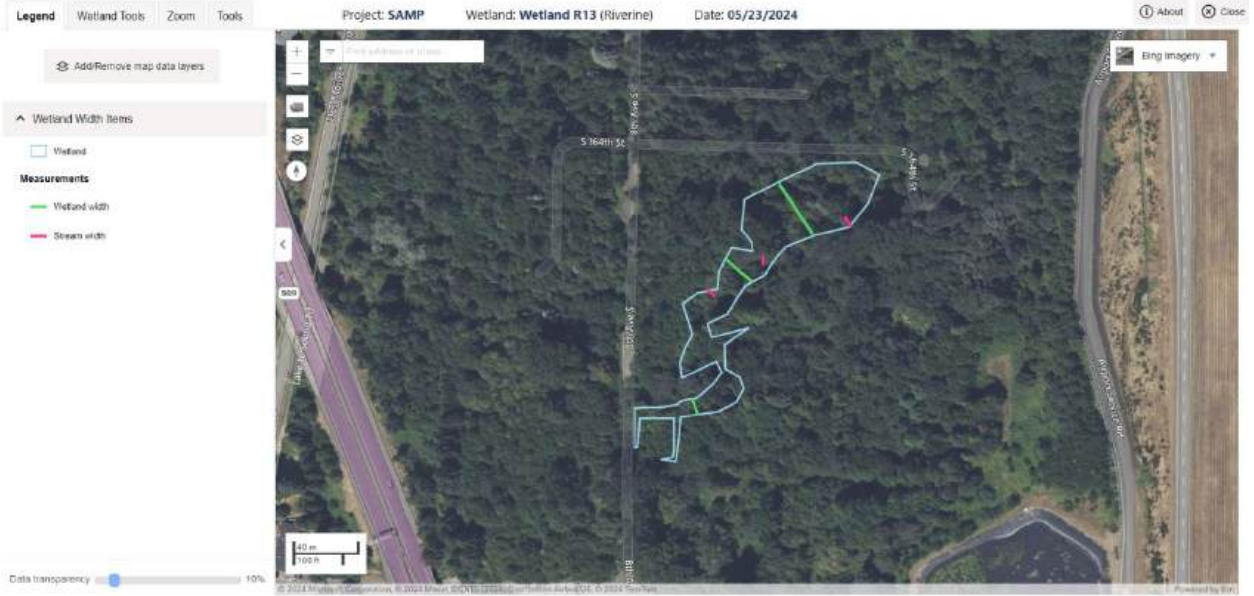
Category of wetland based on Special Characteristics

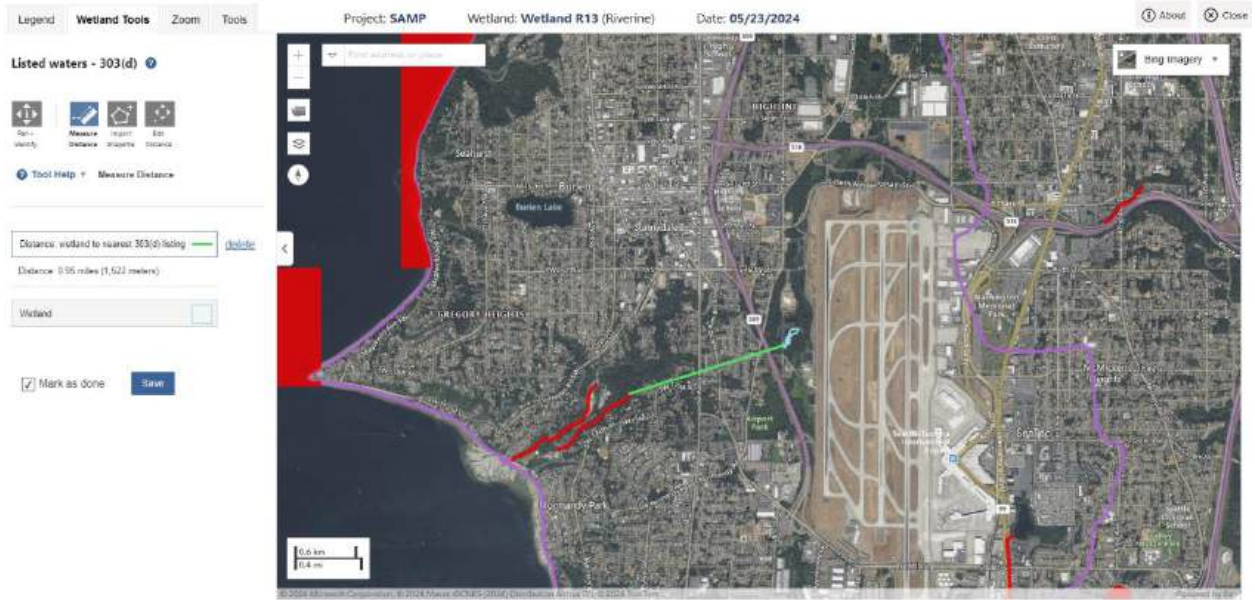
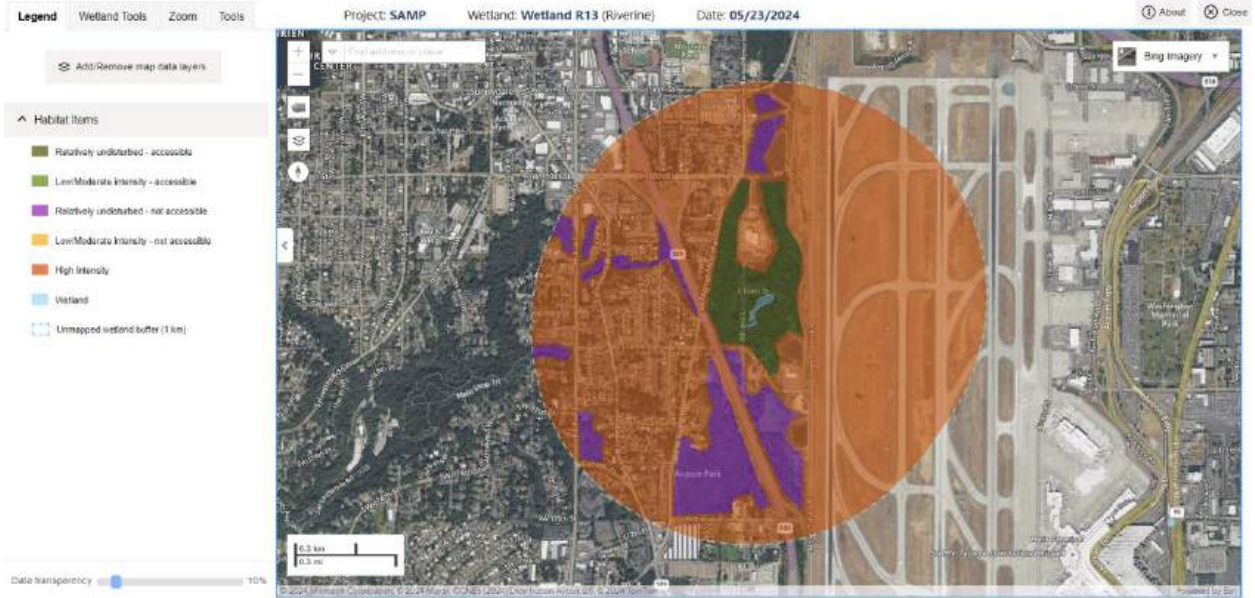
If you answered No for all types, enter "Not Applicable" on Summary Form

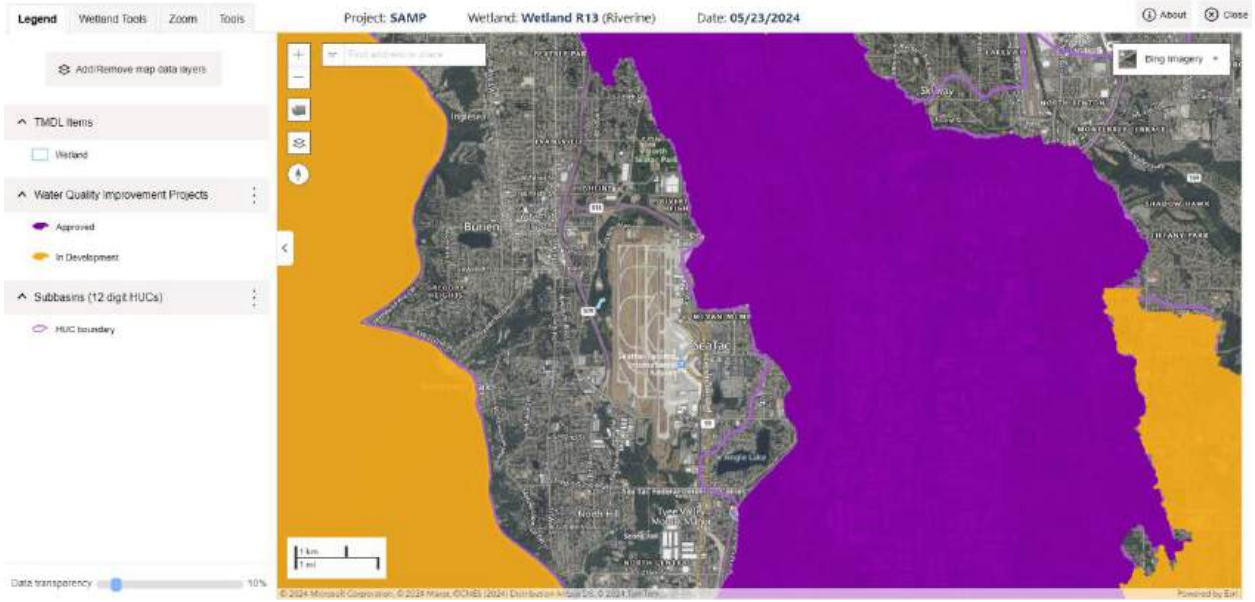
**Final Category: Not
Applicable**











Wetland name or number: Wetland R9/R9a/37a/18

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland R9/R9a/37a/18 Date of site visit: 02/08/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: 06/18/2018

HGM Class used for rating: Depressional

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: **[Category II]** (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I - Total score = 23 - 27

Category II - Total score = 20 - 22

Category III - Total score = 16 - 19

Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	L	M	
Landscape Potential	H	H	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

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

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland R9/R9a/37a/18

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

DEPRESSIONAL AND FLATS WETLANDS

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

D 1.0 Does the site have the potential to improve water quality?

D 1.1 What are the characteristics of surface water outflows from the wetland?

Wetland has no surface water outlet.	points = 3	
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1	Score: 1

D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?

Mapped as true clay or organic (muck or peat)	points = 4	
Soil texture identified as clay or organic in field	points = 4	
Soil texture identified as clay or organic by laboratory test	points = 4	
None of the above	points = 0	Score: 0

D 1.3 What are the characteristics and distribution of persistent plants?

Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > 50% of area	points = 3	
Wetland has persistent, ungrazed plants > 10% of area	points = 1	
Wetland has persistent, ungrazed plants < 10% of area	points = 0	Score: 5

D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?

Area seasonally ponded is > 50% total area of wetland	points = 4	
Area seasonally ponded is equal to or > 25% total area of wetland	points = 2	
Area seasonally ponded is < 25% total area of wetland	points = 0	Score: 0

Total for D 1: 6

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

D 2.0 Does the landscape have the potential to support the water quality function of the site?

D 2.1 Does the wetland unit receive stormwater discharges?

Yes	points = 1	
No	points = 0	Score: 1

D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants in surface runoff?

Yes	points = 1	
No	points = 0	Score: 1

D 2.3 Are there septic systems within 250ft of the wetland?

Yes	points = 1	
No	points = 0	Score: 0

D 2.4 Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?

Yes	points = 1	
No	points = 0	Score: 1

Wetland name or number: Wetland R9/R9a/37a/18

D 2.5 <u>What are the other sources of pollutants coming into the wetland?</u> airplane exhaust	
Total for D 2:	3

Rating of Landscape Potential

3-4 = H 1-2 = M 0 = L

Record the rating on the first page

D 3.0 <u>Is the water quality improvement provided by the site valuable to society?</u>	
D 3.1 <u>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?</u>	
Yes	points = 1
No	points = 0
Score: 0	
D 3.2 <u>Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?</u>	
Yes	points = 1
No	points = 0
Score: 1	
D 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>	
Yes	points = 2
No	points = 0
Score: 2	
Total for D 3:	
3	

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

DEPRESSIONAL AND FLATS WETLANDS

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

D 4.0 <u>Does the site have the potential to reduce flooding and erosion?</u>	
D 4.1 <u>What are the characteristics of surface water outflows from the wetland?</u>	
Wetland has no surface water outlet.	points = 4
Wetland has an intermittently flowing, or highly constricted, outlet.	points = 2
Wetland is a flat depression whose outlet is a permanently flowing ditch.	points = 1
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0
Score: 0	
D 4.2 <u>What is the depth of storage during the wet periods?</u>	
Marks of ponding are 3ft or more above the surface or bottom of the outlet.	points = 7
Marks of ponding are between 2ft to <3ft from the surface or bottom of the outlet.	points = 5
Marks of ponding are at least 0.5ft to <2ft from the surface or the bottom of the outlet.	points = 3
The wetland is a "headwater" wetland.	points = 3
The wetland is flat but has small depressions on the surface that trap water.	points = 1
Marks of ponding are less than 0.5ft (6in).	points = 0
Score: 0	

Wetland name or number: Wetland R9/R9a/37a/18

D 4.3 <u>What is the contribution of the wetland to storage in the watershed?</u>		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	Score: 0
Total for D 4:		0

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

D 5.0 Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1 <u>Does the wetland unit receive stormwater discharges?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.2 <u>Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</u>		
Yes	points = 1	
No	points = 0	Score: 1
D 5.3 <u>Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?</u>		
Yes	points = 1	
No	points = 0	Score: 1
Total for D 5:		3

Rating of Landscape Potential

3 = H 1-2 = M 0 = L

Record the rating on the first page

D 6.0 Are the hydrologic functions provided by the site valuable to society?		
D 6.1 <u>Is the wetland in a landscape that has flooding problems?</u>		
Flooding occurs in a sub-basin that is immediately down-gradient of the wetland.	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the basin.	points = 1	
The existing or potential outflow from the wetland is so constrained that water cannot reach areas that flood.	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	Score: 2
D 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for D 6:		4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
 Emergent
 Scrub-shrub
 Forested
 Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4
3 structures	points = 2
2 structures	points = 1
1 structure	points = 0
No structures present	points = 0

Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
 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
 Freshwater Tidal wetland

4 or more types present	points = 3
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2
2 types present	points = 1
1 type present	points = 0
None present	points = 0

Score: 2

H 1.3 What is the richness of the plant species in the wetland?

>19 species	points = 2
5-19 species	points = 1
<5 species	points = 0

Score: 1

Wetland name or number: Wetland R9/R9a/37a/18

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 2	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 2	
Total for H 1:	
8	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland R9/R9a/37a/18

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

Result:

Wetland name or number: Wetland R9/R9a/37a/18

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result: Not a Bog Wetland

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland R9/R9a/37a/18

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or ungrazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

Result:

Wetland name or number: Wetland R9/R9a/37a/18

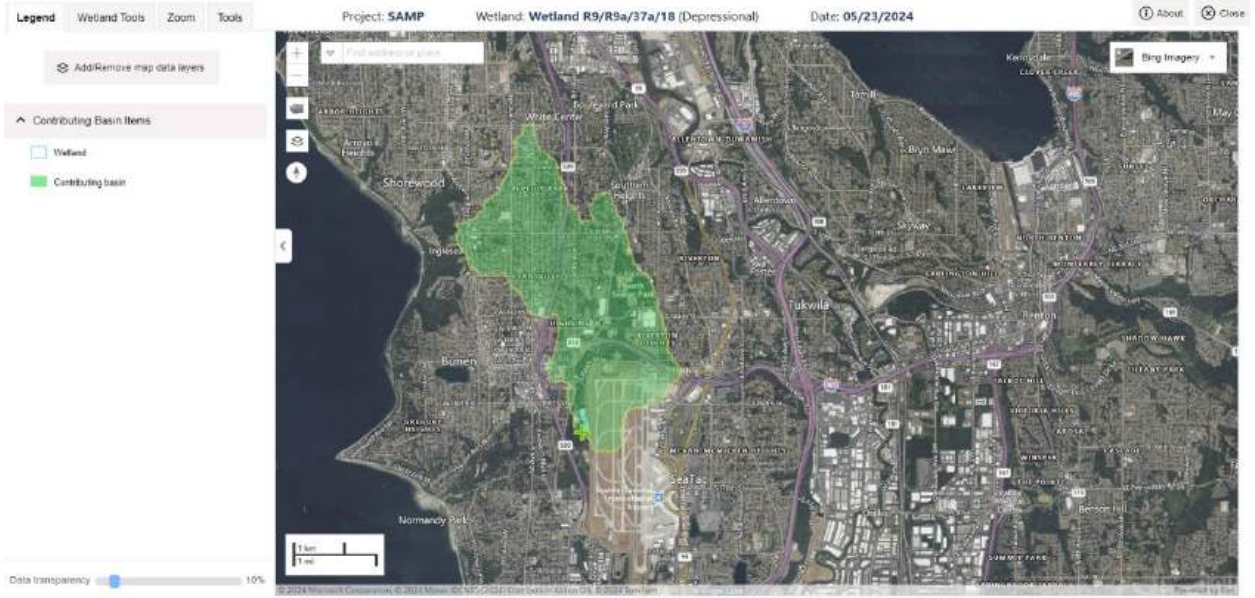
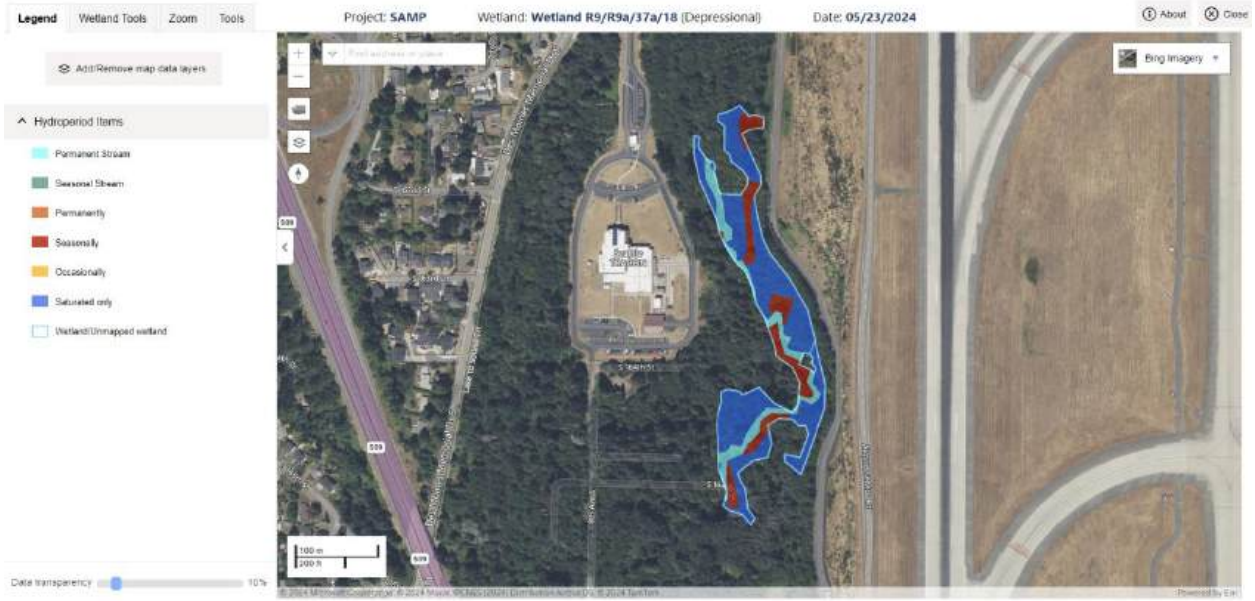
Category of wetland based on Special Characteristics

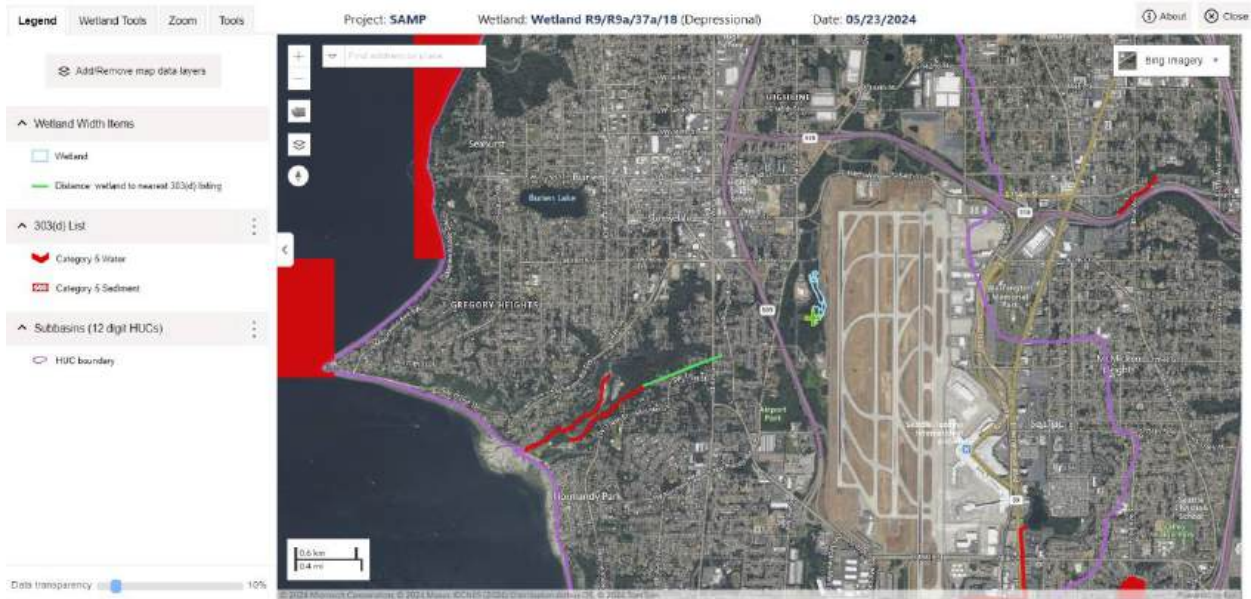
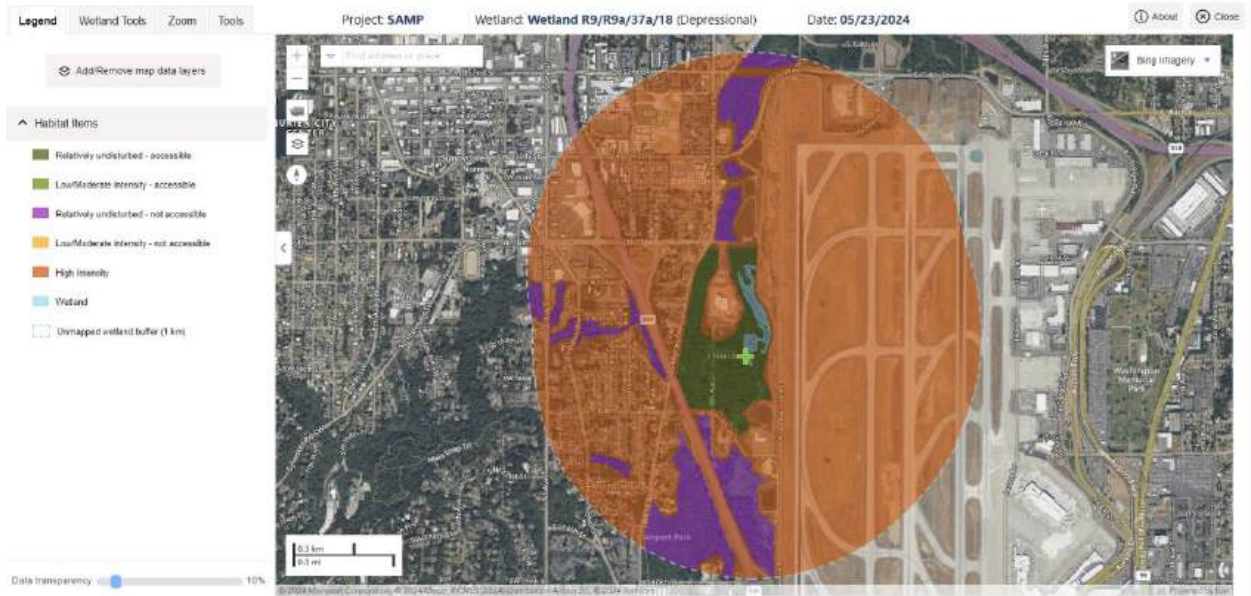
If you answered No for all types, enter "Not Applicable" on Summary Form

**Final Category: Not
Applicable**









Wetland name or number: Wetland R3

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland R3 Date of site visit: 02/08/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: 06/18/2018

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	M	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland R3

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: Wetland R3

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

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

R 1.0 Does the site have the potential to improve water quality?

R 1.1 What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 0

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 6

Total for R 1: **6**

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?

R 2.1 Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

airplane exhaust

Total for R 2: **4**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland R3

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		2

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

<p><u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u></p> <p>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</p>		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 2
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		9

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland R3

R 5.0 Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1 <u>Is the stream or river adjacent to the wetland downcut?</u>		
Yes	points = 0	
No	points = 1	Score: 0
R 5.2 <u>Does the up-gradient watershed include a UGA or incorporated area?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 5.3 <u>Is the up-gradient stream or river controlled by dams?</u>		
Yes	points = 0	
No	points = 1	Score: 1
		Total for R 5: 2

Rating of Landscape Potential

3 = H 1-2 = M 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
		Total for R 6: 4

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland R3

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 0

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 2

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland R3

H 1.4 <u>What is the interspersions of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input checked="" type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland R3

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland R3

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

Result:

Wetland name or number: Wetland R3

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland R3

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

Result:

Wetland name or number: Wetland R3

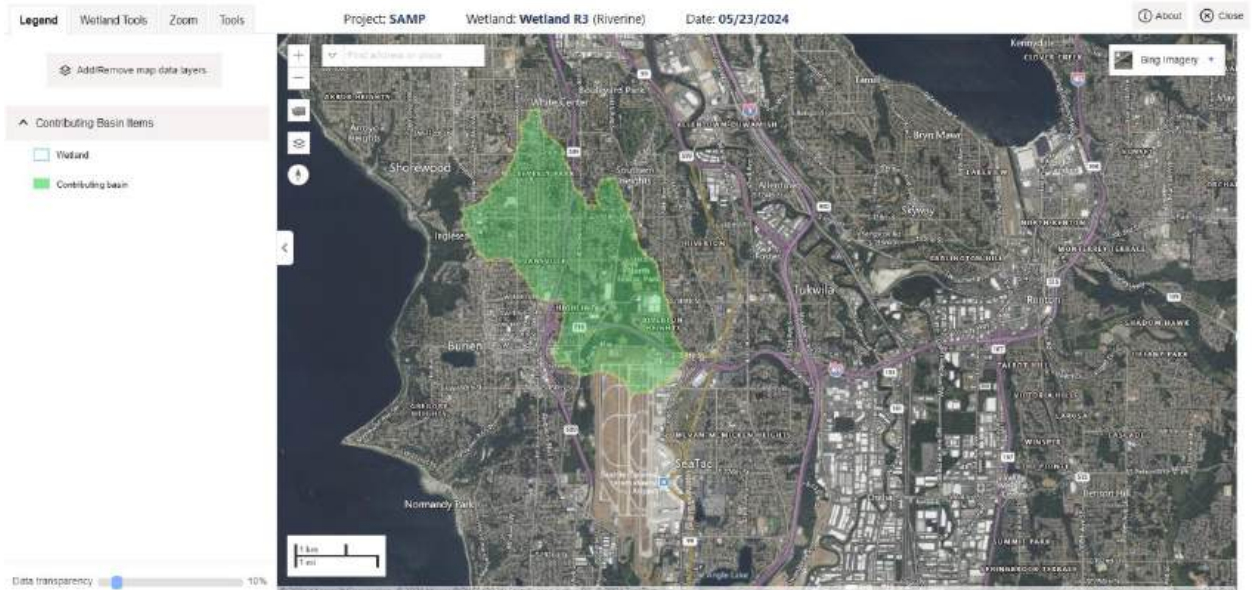
Category of wetland based on Special Characteristics

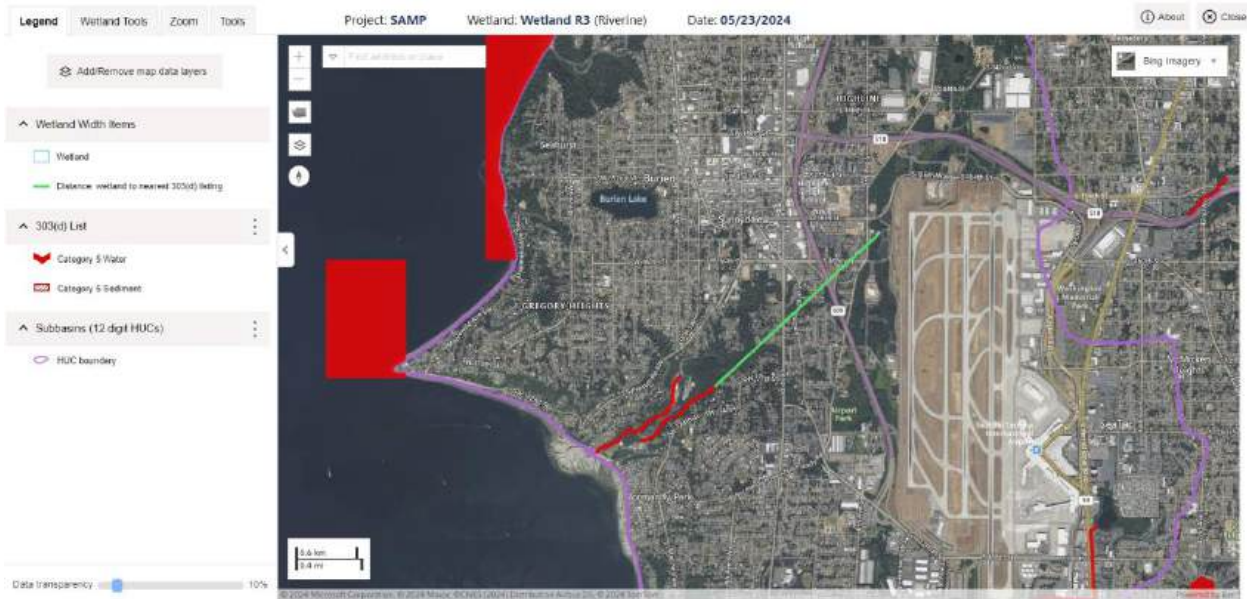
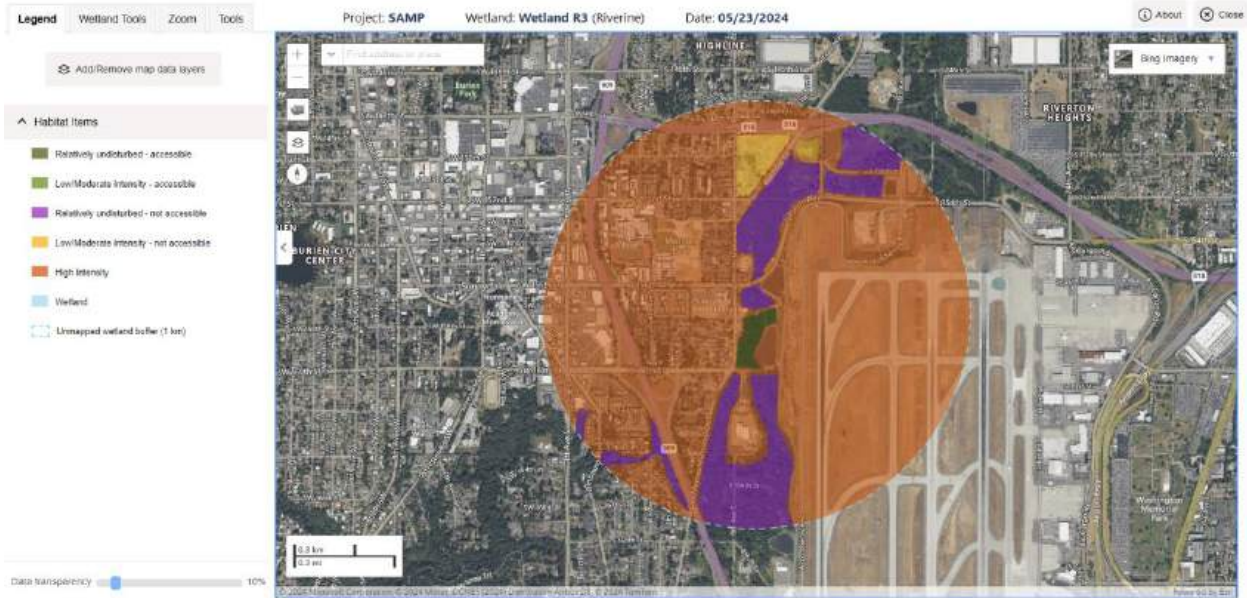
If you answered No for all types, enter "Not Applicable" on Summary Form

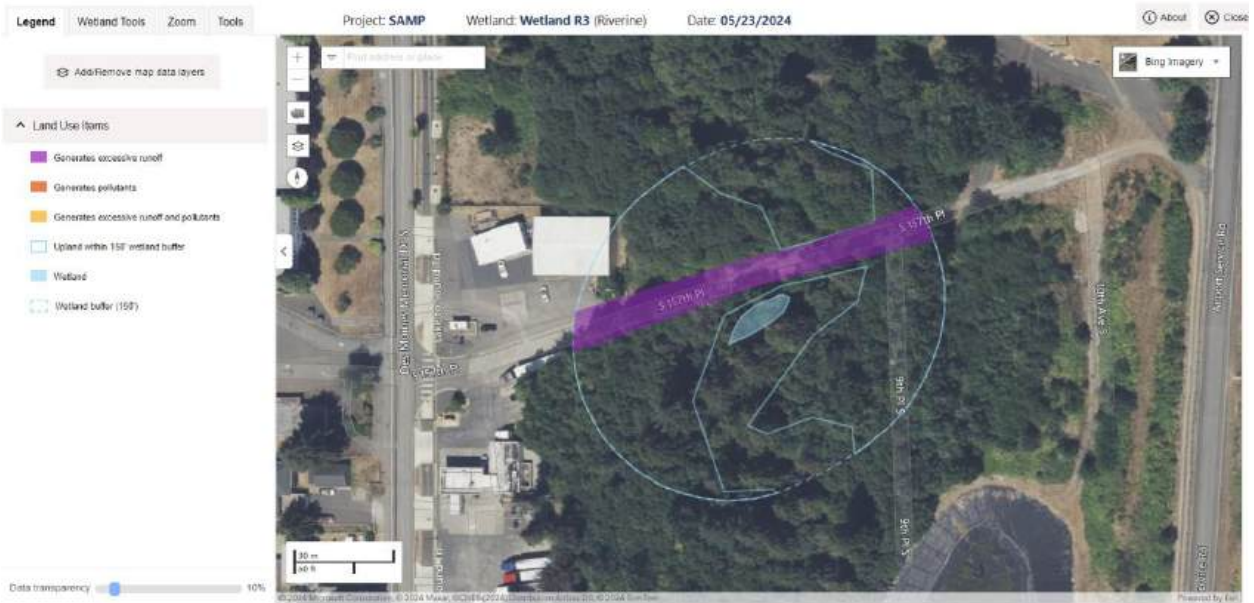
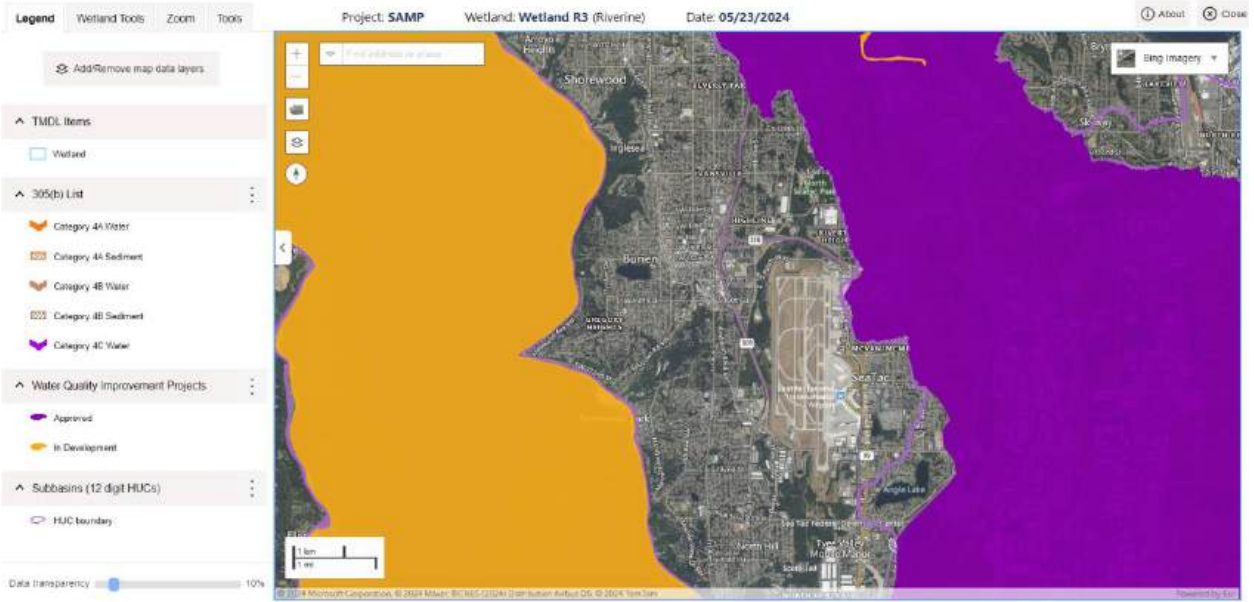
**Final Category: Not
Applicable**











Wetland name or number: Wetland R2

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland R2 Date of site visit: 02/08/2024

Rated By: K. Moser Trained by Ecology? Yes No Date of Training: N/A

HGM Class used for rating: Riverine

Wetland has multiple HGM classes? Yes No

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

Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings

(order of ratings is not important)

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	M	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Wetland name or number: Wetland R2

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Wetland name or number: Wetland R2

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality**R 1.0 Does the site have the potential to improve water quality?****R 1.1** What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

Depressions cover >75% area of wetland	points = 8	
Depressions cover >50% area of wetland	points = 4	
Depressions present but cover <50% area of wetland	points = 2	
No depressions present	points = 0	Score: 0

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland	points = 8	
Trees or shrubs cover 33% - 66% of the area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) >66% area of the wetland	points = 6	
Ungrazed, herbaceous plants cover (>6in high) 33%-66% of the area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous plants cover <33% area of the wetland	points = 0	Score: 8

Total for R 1: **8****Rating of Site Potential**

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?**R 2.1** Is the wetland within an incorporated city or within its UGA?

Yes	points = 2	
No	points = 0	Score: 2

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes	points = 1	
No	points = 0	Score: 1

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

Yes	points = 1	
No	points = 0	Score: 0

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?

Yes	points = 1	
No	points = 0	Score: 0

R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4?

Yes	points = 1	
No	points = 0	Score: 1

R 2.6 What are the other sources of pollutants coming into the wetland?

airplane exhaust

Total for R 2: **4**

Rating of Landscape Potential

3-4 = H **1-2 = M** **0 = L**

Record the rating on the first page

Wetland name or number: Wetland R2

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 <u>Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.2 <u>Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?</u>		
Yes	points = 1	
No	points = 0	Score: 0
R 3.3 <u>Has the site been identified in a watershed or local plan as important for maintaining water quality?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 3:		2

Rating of Value

2-4 = H 1 = M 0 = L

Record the rating on the first page

<p><u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u></p> <p>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</p>		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 <u>What are the characteristics of the overbank storage the wetland provides?</u>		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	
If the ratio is < 1	points = 1	Score: 2
R 4.2 <u>What are the characteristics of plants that slow down water velocities during floods?</u>		
Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	
Forest or shrubs cover >10% of the wetland area OR emergent plants cover >33% of the wetland area	points = 4	
Plants do not meet the above criteria	points = 0	Score: 7
Total for R 4:		9

Rating of Site Potential

12-16 = H 6-11 = M 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland R2

R 5.0 Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1 <u>Is the stream or river adjacent to the wetland downcut?</u>		
Yes	points = 0	
No	points = 1	Score: 0
R 5.2 <u>Does the up-gradient watershed include a UGA or incorporated area?</u>		
Yes	points = 1	
No	points = 0	Score: 1
R 5.3 <u>Is the up-gradient stream or river controlled by dams?</u>		
Yes	points = 0	
No	points = 1	Score: 1
Total for R 5:		2

Rating of Landscape Potential

[] 3 = H [X] 1-2 = M [] 0 = L

Record the rating on the first page

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u>		
The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u>		
Yes	points = 2	
No	points = 0	Score: 2
Total for R 6:		4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland R2

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- Aquatic Bed
- Emergent
- Scrub-shrub
- Forested
- Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)

4 structures or more	points = 4	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures present	points = 0	Score: 1

H 1.2 What are the hydroperiods that meet the size thresholds in the wetland?

- Permanently flooded or inundated
- 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
- Freshwater Tidal wetland

4 or more types present	points = 3	
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	
2 types present	points = 1	
1 type present	points = 0	
None present	points = 0	Score: 1

H 1.3 What is the richness of the plant species in the wetland?

> 19 species	points = 2	
5-19 species	points = 1	
<5 species	points = 0	Score: 1

Wetland name or number: Wetland R2

H 1.4 <u>What is the interspersion of habitats?</u>	
High	points = 3
Moderate	points = 2
Low	points = 1
None	points = 0
Score: 1	
H 1.5 <u>What are the special habitat features in the wetland?</u>	
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).	
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland	
<input checked="" type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)	
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
6 habitats selected	points = 6
5 habitats selected	points = 5
4 habitats selected	points = 4
3 habitats selected	points = 3
2 habitats selected	points = 2
1 habitat selected	points = 1
No habitats selected	points = 0
Score: 3	
Total for H 1: 7	

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

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

H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>	
>33% of 1km Polygon	points = 3
20-33% of 1km Polygon	points = 2
10-19% of 1km Polygon	points = 1
<10% of 1km Polygon	points = 0
Score: 0	
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>	
Total habitat is >50% of the Polygon	points = 3
Total habitat is 10-50% of the Polygon and in 1-3 patches	points = 2
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1
Total habitat is <10% of the Polygon	points = 0
Score: 1	

Wetland name or number: Wetland R2

H 2.3 What is the land use intensity in the 1km polygon?		
50% of the Polygon is high intensity land use	points = -2	
<50% of the Polygon is high intensity land use	points = 0	Score: -2
Total for H 2:		-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?		
<input type="checkbox"/> Aspen Stands		
<input type="checkbox"/> Biodiversity Areas and Corridors		
<input type="checkbox"/> Herbaceous Balds		
<input type="checkbox"/> Old-growth/Mature Forests		
<input type="checkbox"/> Oregon White Oak		
<input checked="" type="checkbox"/> Riparian		
<input type="checkbox"/> Westside Prarie		
<input type="checkbox"/> Fresh Deepwater		
<input checked="" type="checkbox"/> Instream		
<input type="checkbox"/> Nearshore (Coastal, Open Coast, Puget Sound)		
<input type="checkbox"/> Caves		
<input type="checkbox"/> Cliffs		
<input checked="" type="checkbox"/> Snags and Logs		
<input type="checkbox"/> Talus		
The following criteria automatically score 2 points:		
<input type="checkbox"/> The wetland provides habitat for Threatened or Endangered species		
<input type="checkbox"/> The wetland is mapped as a location for an individual WDFW priority species		
<input type="checkbox"/> The wetland is a Wetland of High Conservation Value		
<input type="checkbox"/> The wetland has been categorized as an important habitat site in a local plan		
The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	Score: 2
Total for H 3:		2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

Wetland name or number: Wetland R2

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

SC 1.1 Does the wetland meet all of the following criteria for Estuarine wetlands?

- The dominant water regime is tidal
- The wetland is vegetated
- The water salinity is greater than 0.5 ppt

Yes - Go to SC 1.2

No - Not an Estuarine Wetland

**Result: Not an
Estuarine Wetland**

SC 1.2 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 Estuarine Wetland

No - Go to SC 1.3

Result:

SC 1.3 Is the wetland unit at least 1ac 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.
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Yes - Category I Estuarine Wetland

No - Category II Estuarine Wetland

Result:

SC 2.0 Wetlands of High Conservation Value

SC 2.1 Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?

Yes - Category I Wetland of High Conservation Value

No - Go to SC 2.2

Result: Go to SC 2.2

SC 2.2 Does the wetland have a rare plant species, rare plant community, or high-quality common plant community that may qualify the site as a WHCV?

Yes - Category I Wetland of High Conservation Value

No - Not a Wetland of High Conservation Value

**Result: Not a Wetland
of High Conservation
Value**

Wetland name or number: Wetland R2

SC 3.0 Bogs

SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile?

Yes - Go to SC 3.3

No - Go to SC 3.2

Result: Go to SC 3.2

SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?

Yes - Go to SC 3.3

No - Not a Bog Wetland

Result:

SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least 30% cover of plant species listed in the table provided in the instructions?

Yes - Category I Bog Wetland

No - Go to SC 3.4

Result:

SC 3.4 Is an area with peats or mucks forested (>30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann Spruce, or western white pine AND any of the species (or combinations of species) listed in the table found in the instructions provide more than 30% of the cover under the canopy?

Yes - Category I Bog Wetland

No - Not a Bog Wetland

Result:

SC 4.0 Forested Wetlands

SC 4.1 Does the wetland have at least 1 contiguous acre of forest that meets one of the following criteria?

Old-growth forests

Mature forests

Yes - Category I Forested Wetland

No - Not a Forested Wetland

Result: Not a Forested Wetland

Wetland name or number: Wetland R2

SC 5.0 Wetlands in Coastal Lagoons

SC 5.1 Coastal Lagoons: Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or rocks
- The depression in which the wetland is located contains ponded water that is saline or brackish (>0.5 ppt) during most of the year in at least a portion of the open water area (measured near the bottom)
- The lagoon retains some of its surface water at low tide during spring tides

Yes - Go to SC 5.2

No - Not a Coastal Lagoon Wetland

Result: Not a Coastal Lagoon Wetland

SC 5.2 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).
- At least 75% of the landward edge of the wetland has a 100ft buffer of shrub, forest, or un-grazed or un-mowed grassland.
- the wetland is larger than 0.10ac (4350 sqft)

Yes - Category I Coastal Lagoon

No - Category II Coastal Lagoon

Result:

SC 6.0 Interdunal Wetlands

SC 6.1 Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership WBUO)?

Yes - Go to SC 6.2

No - Not an Interdunal Wetland

Result: Not an Interdunal Wetland

SC 6.2 Is the wetland 1ac or larger in size, or a mosaic that is 1ac or larger in size?

Wetland is larger than 1ac in size - Go to SC 6.3

Wetland is a mosaic larger than 1ac is size - Category II Interdunal Wetland

No - Go to SC 6.4

Result:

SC 6.3 Does the wetland score 8 or 9 points for the habitat functions?

Yes - Category I Interdunal Wetland

No - Category II Interdunal Wetland

Result:

SC 6.4 Is the wetland unit between 0.1ac and 1ac, or in a mosaic of wetlands that is between 0.1ac and 1ac in size?

Yes - Category III Interdunal Wetland

No - Category IV Interdunal Wetland

Result:

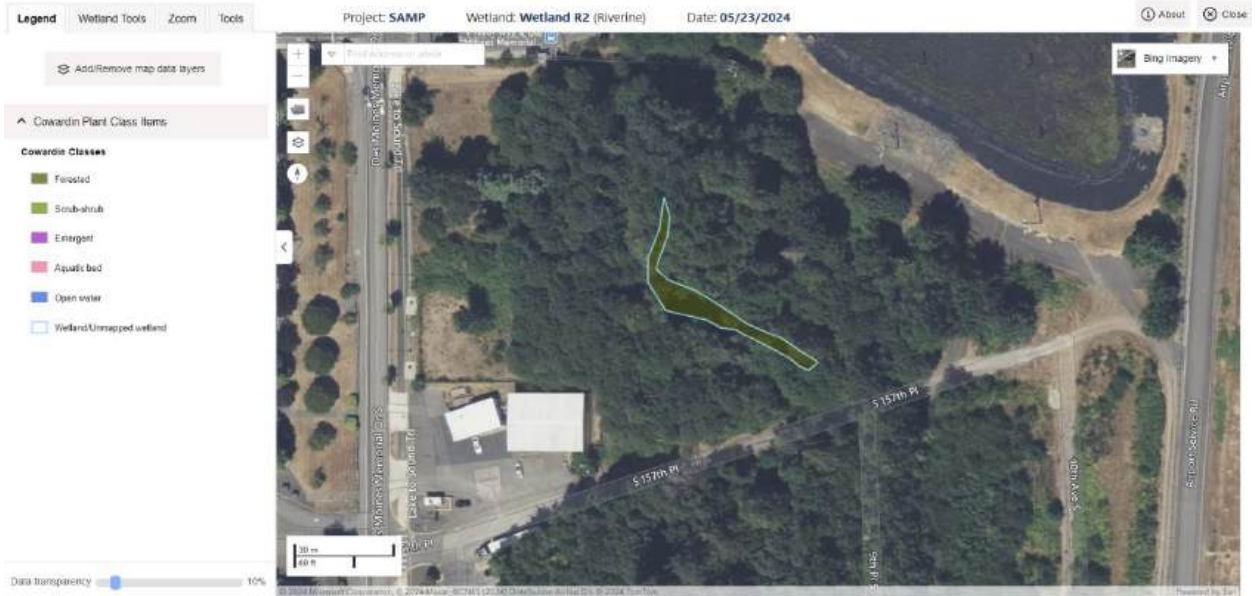
Wetland name or number: Wetland R2

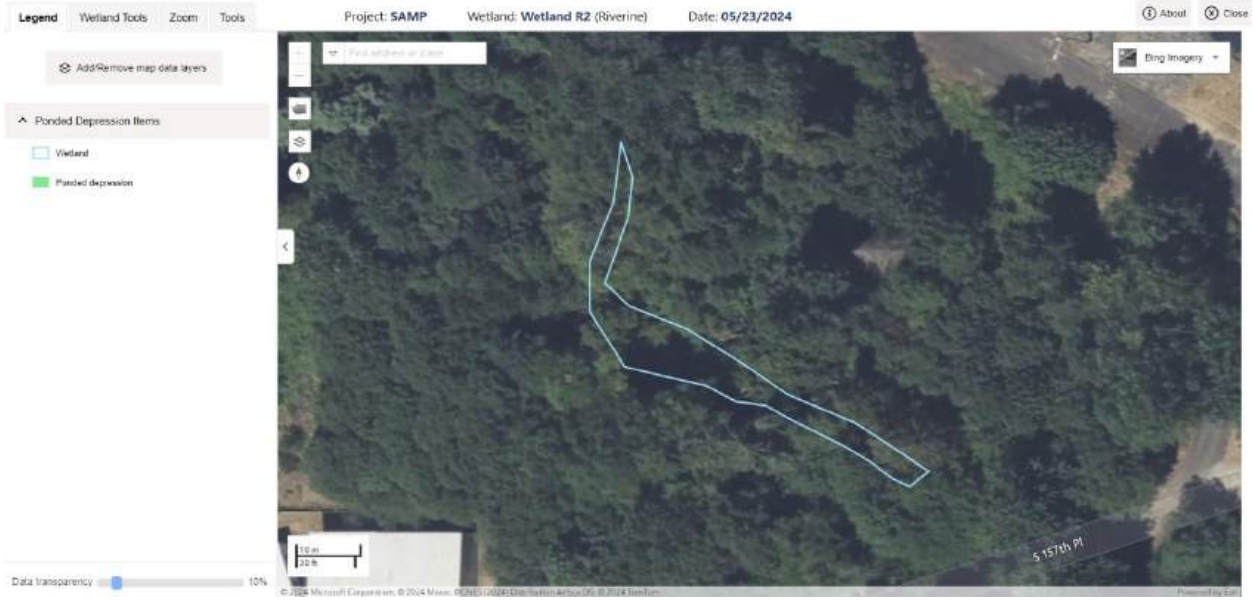
Category of wetland based on Special Characteristics

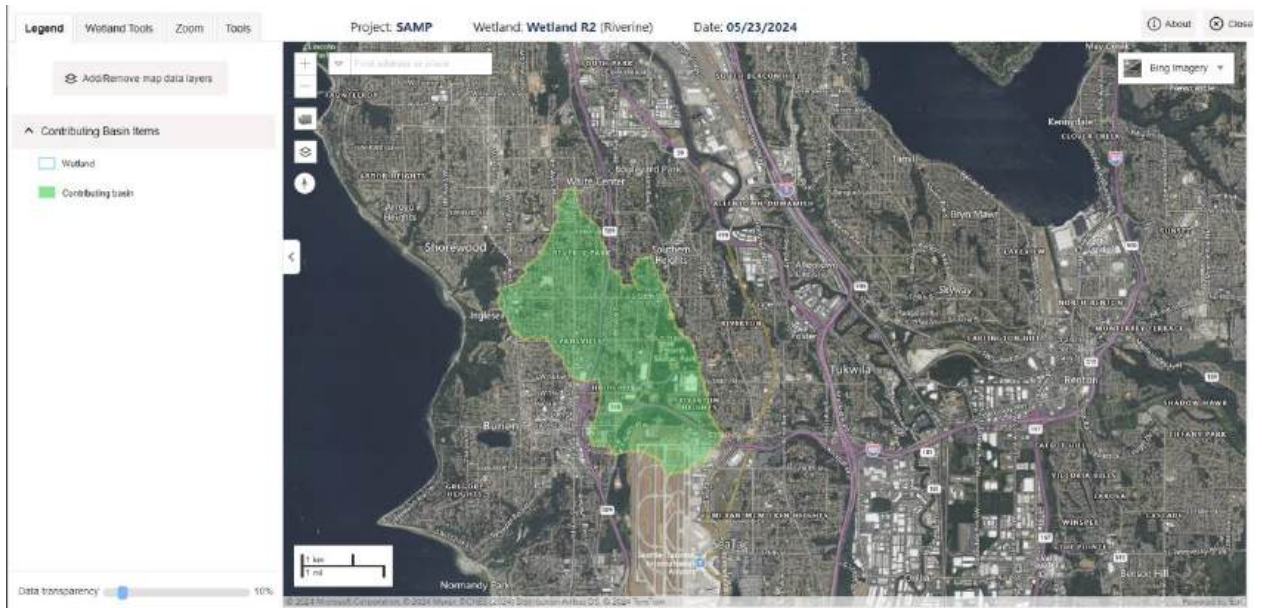
If you answered No for all types, enter "Not Applicable" on Summary Form

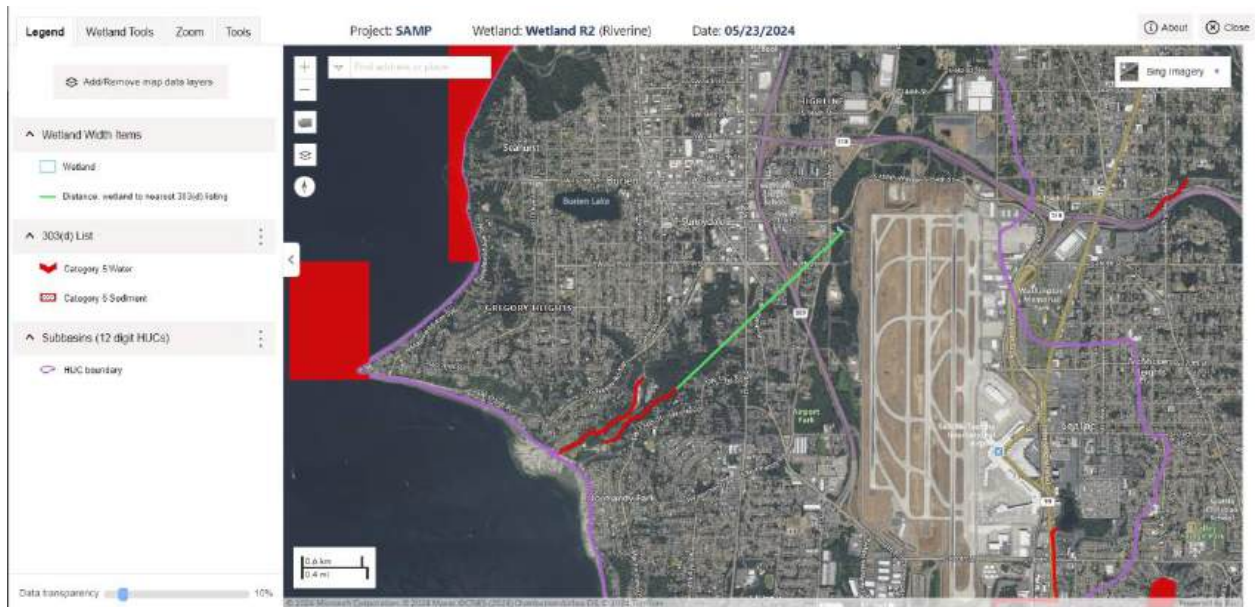
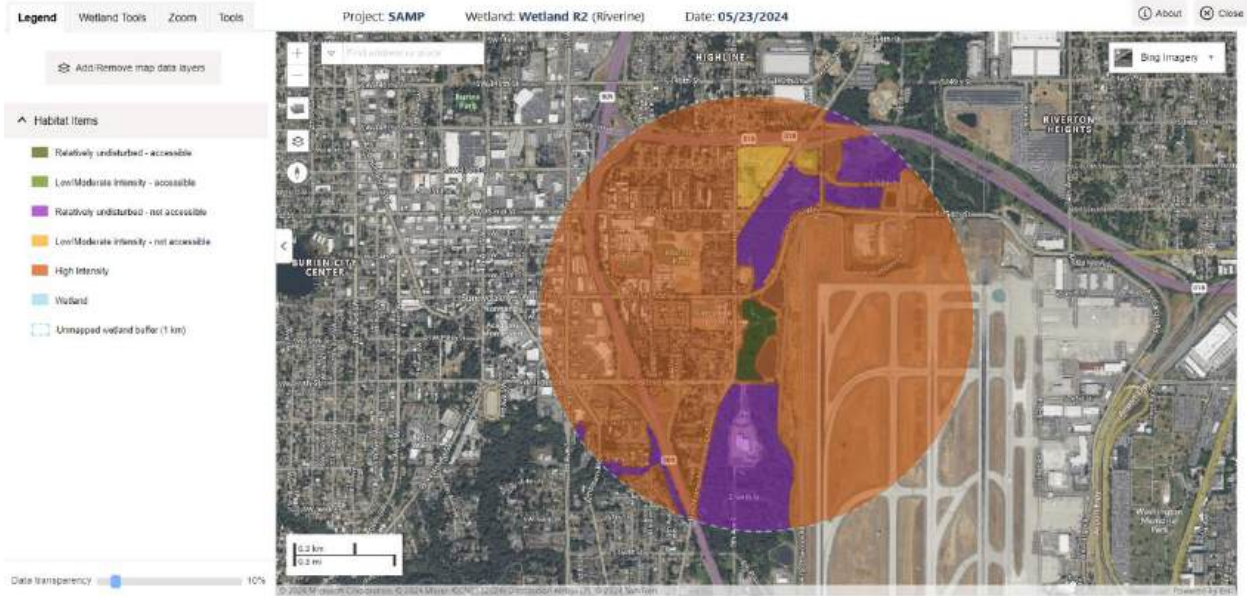
**Final Category: Not
Applicable**

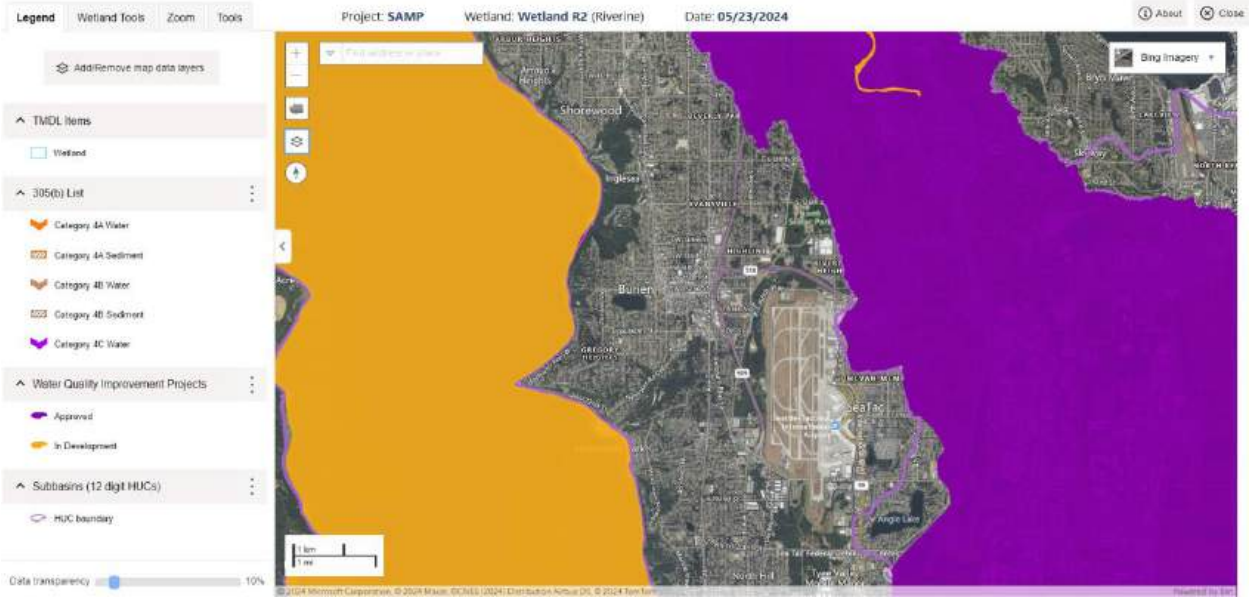












Wetland name or number: Wetland DC

RATING SUMMARY - Western Washington

Name of wetland (or ID#): Wetland DC **Date of site visit:** 02/08/2024
Rated By: K. Moser **Trained by Ecology?** Yes No **Date of Training:** 06/18/2018
HGM Class used for rating: Riverine
Wetland has multiple HGM classes? Yes No

NOTE: Form is not complete without the figures requested (*figures can be combined*).
Source of base aerial photo/map:

OVERALL WETLAND CATEGORY: [Category II] (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

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

Score for each function based on three ratings (order of ratings is not important)
 9 = H,H,H 6 = M,M,M
 8 = H,H,M 5 = H,L,L
 7 = H,H,L 5 = M,M,L
 7 = H,M,M 4 = M,L,L
 6 = H,M,L 3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	M	M	M	
Landscape Potential	H	M	L	
Value	H	H	H	Total
Score Based on Ratings	8	7	6	21

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	
Wetland of High Conservation Value	
Bog	
Forested	
Coastal Lagoon	
Interdunal	
None of the above	Not Applicable

Maps and figures required to answer questions correctly for Western Washington

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 (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	

Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	
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RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

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

R 1.0 Does the site have the potential to improve water quality?

R 1.1 What is the total area of surface depressions within the Riverine wetland that can trap sediments during a flooding event?

No depressions present points = 0 **Score: 0**

R 1.2 What is the structure of plants in the wetland?

Trees or shrubs cover >66% area of the wetland points = 8 **Score: 8**

Total for R 1: **8**

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function of the site?

R 2.1 Is the wetland within an incorporated city or within its UGA?

Yes points = 2 **Score: 2**

R 2.2 Does the contributing basin to the wetland include a UGA or incorporated area?

Yes points = 1 **Score: 1**

R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?

No points = 0 **Score: 0**

Wetland name or number: Wetland DC

R 2.4 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants? Yes	points = 1	Score: 1
R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in question R 2.1-R 2.4? Yes	points = 1	Score: 1
R 2.6 What are the other sources of pollutants coming into the wetland? airplane exhaust		
Total for R 2:		5

Rating of Landscape Potential

[X] 3-4 = H [] 1-2 = M [] 0 = L

Record the rating on the first page

R 3.0 Is the water quality improvement provided by the site valuable to society?		
R 3.1 Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi? Yes	points = 1	Score: 1
R 3.2 Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens? Yes	points = 1	Score: 1
R 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? Yes	points = 2	Score: 2
Total for R 3:		4

Rating of Value

[X] 2-4 = H [] 1 = M [] 0 = L

Record the rating on the first page

<p><u>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</u></p> <p>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</p>		
R 4.0 Does the site have the potential to reduce flooding and erosion?		
R 4.1 What are the characteristics of the overbank storage the wetland provides? If the ratio is 1-<5	points = 2	Score: 2
R 4.2 What are the characteristics of plants that slow down water velocities during floods? Forest or shrubs cover >33% of the wetland area OR emergent plants cover >66% of the wetland area	points = 7	Score: 7
Total for R 4:		9

Rating of Site Potential

[] 12-16 = H [X] 6-11 = M [] 0-5 = L

Record the rating on the first page

Wetland name or number: Wetland DC

R 5.0 Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1 <u>Is the stream or river adjacent to the wetland downcut?</u> Yes	points = 0	Score: 0
R 5.2 <u>Does the up-gradient watershed include a UGA or incorporated area?</u> Yes	points = 1	Score: 1
R 5.3 <u>Is the up-gradient stream or river controlled by dams?</u> No	points = 1	Score: 1
Total for R 5:		2

Rating of Landscape Potential [] 3 = H [X] 1-2 = M [] 0 = L *Record the rating on the first page*

R 6.0 Are the hydrologic functions provided by the site valuable to society?		
R 6.1 <u>What is the distance to the nearest areas downstream that have flooding problems?</u> The sub-basin immediately down-gradient of the wetland has flooding problems	points = 2	Score: 2
R 6.2 <u>Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</u> Yes	points = 2	Score: 2
Total for R 6:		4

Rating of Value [X] 2-4 = H [] 1 = M [] 0 = L *Record the rating on the first page*

HABITAT FUNCTIONS
These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?		
H 1.1 <u>What is the structure of the plant community?</u>		
<input type="checkbox"/> Aquatic Bed		
<input type="checkbox"/> Emergent		
<input type="checkbox"/> Scrub-shrub		
<input checked="" type="checkbox"/> Forested		
<input type="checkbox"/> Multiple strata within the Forested class (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)		
1 structure	points = 0	Score: 0

Wetland name or number: Wetland DC

H 1.2 <u>What are the hydroperiods that meet the size thresholds in the wetland?</u>		
<input type="checkbox"/> Permanently flooded or inundated		
<input type="checkbox"/> Seasonally flooded or inundated		
<input checked="" type="checkbox"/> Occasionally flooded or inundated		
<input checked="" type="checkbox"/> Saturated only		
<input checked="" type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland		
<input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland		
<input type="checkbox"/> Lake Fringe wetland		
<input type="checkbox"/> Freshwater Tidal wetland		
3 types present or Lake Fringe / Freshwater Tidal Fringe	points = 2	Score: 2
H 1.3 <u>What is the richness of the plant species in the wetland?</u>		
5-19 species	points = 1	Score: 1
H 1.4 <u>What is the interspersion of habitats?</u>		
Low	points = 1	Score: 1
H 1.5 <u>What are the special habitat features in the wetland?</u>		
<input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in diameter and 6ft long).		
<input checked="" type="checkbox"/> Standing snags (dbh >4in) within the wetland		
<input checked="" type="checkbox"/> Undercut banks are present for at least 6.6ft (2m) and/or overhanging plants extend at least 3.3ft (1m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33ft (10m)		
<input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)		
<input type="checkbox"/> At least 0.25ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)		
<input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)		
3 habitats selected	points = 3	Score: 3
Total for H 1:		7

Rating of Site Potential

[] 15-18 = H [X] 7-14 = M [] 0-6 = L

Record the rating on the first page

H 2.0 <u>Does the landscape have the potential to support habitat functions of the site?</u>		
H 2.1 <u>What is the percentage of accessible habitat within 1km of the wetland?</u>		
<10% of 1km Polygon	points = 0	Score: 0
H 2.2 <u>What is the percentage of total habitat in a 1km polygon around the wetland?</u>		
Total habitat is 10-50% of the Polygon and in >3 patches	points = 1	Score: 1

Wetland name or number: Wetland DC

H 2.3 What is the land use intensity in the 1km polygon?

50% of the Polygon is high intensity land use

points = -2

Score: -2

Total for H 2:

-1

Rating of Landscape Potential

[] 4-6 = H [] 1-3 = M [X] 0 = L

Record the rating on the first page

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

H 3.1 Does the site provide habitat for species valued in laws, regulations, or policies?

- Aspen Stands
- Biodiversity Areas and Corridors
- Herbaceous Balds
- Old-growth/Mature Forests
- Oregon White Oak
- Riparian
- Westside Prarie
- Fresh Deepwater
- Instream
- Nearshore (Coastal, Open Coast, Puget Sound)
- Caves
- Cliffs
- Snags and Logs
- Talus

The following criteria automatically score 2 points:

- The wetland provides habitat for Threatened or Endangered species
- The wetland is mapped as a location for an individual WDFW priority species
- The wetland is a Wetland of High Conservation Value
- The wetland has been categorized as an important habitat site in a local plan

The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value

points = 2

Score: 2

Total for H 3:

2

Rating of Value

[X] 2 = H [] 1 = M [] 0 = L

Record the rating on the first page

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Estuarine Wetlands

Wetland name or number: Wetland DC

SC 2.0 Wetlands of High Conservation Value
SC 3.0 Bogs
SC 4.0 Forested Wetlands
SC 5.0 Wetlands in Coastal Lagoons

Wetland name or number: Wetland DC

SC 6.0 Interdunal Wetlands

Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form

Final Category: Not Applicable



Wetland DC- Cowardin



Wetland DC- hydroperiods



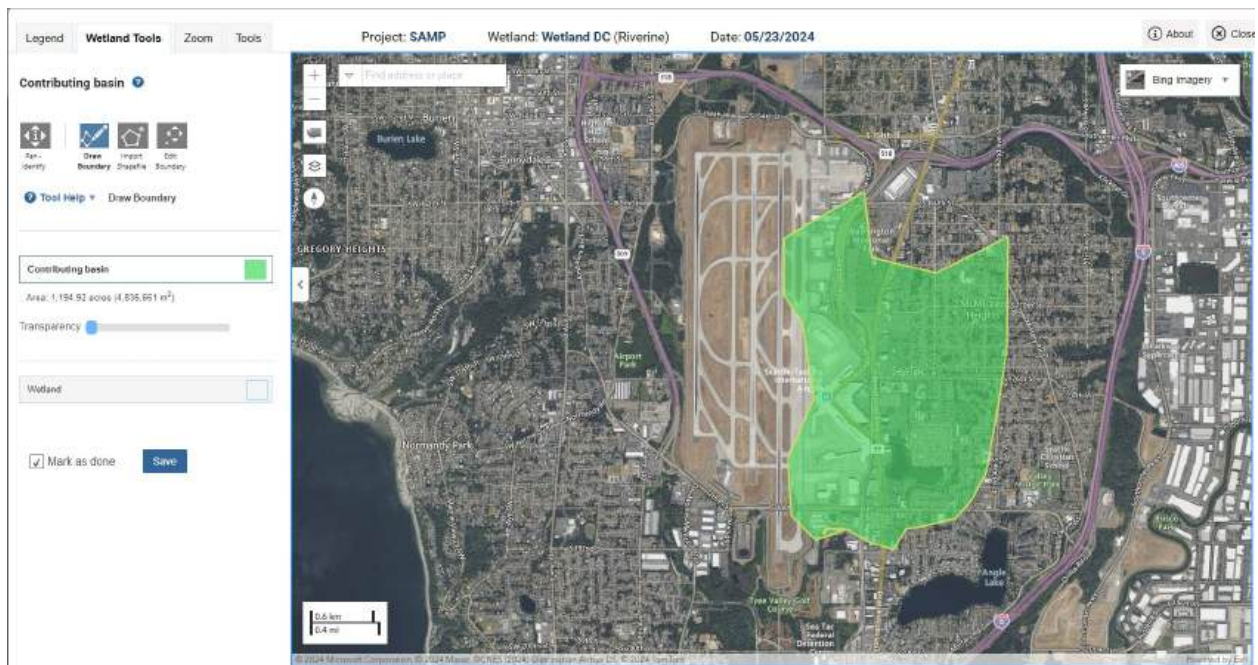
Ponded depressions



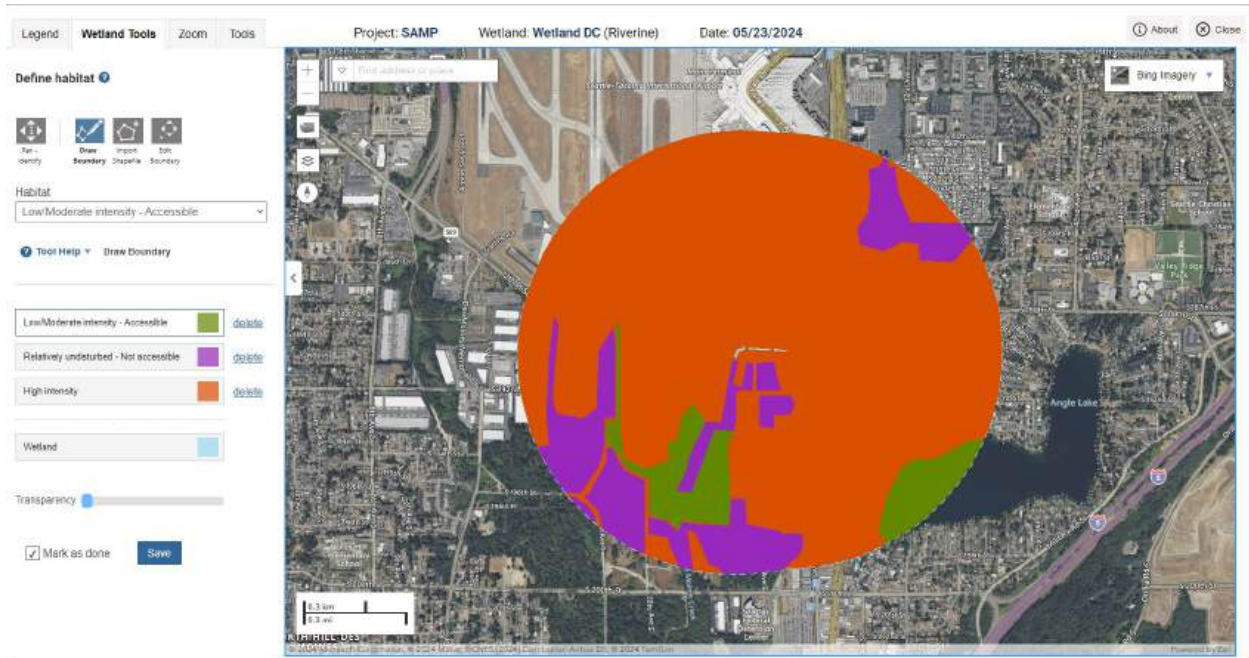
Plant cover



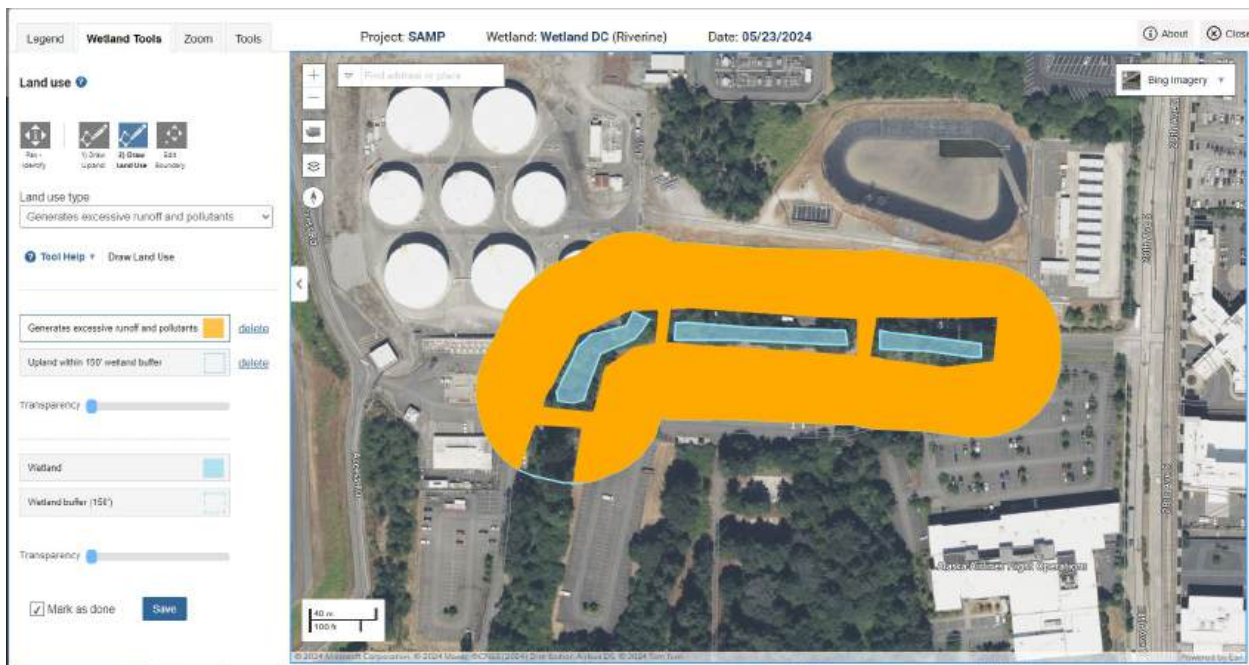
Stream to wetland ratio



Contributing basin



Contributing basin



Land use