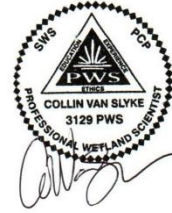


MEMORANDUM

To: Susan Jones, Landowner
From: Collin Van Slyke, Northwest Ecological Services (NES)
Date: November 22, 2024
RE: The Woods at Viewcrest Project:
Wetlands and HCA Report Addendum



PURPOSE

This memorandum was prepared in response to items #1-3 in the August 14, 2024 Request for Additional Information (RFI) issued by the City of Bellingham (COB) and supplements baseline information included in the Wetland Delineation Update & Critical Areas Summary for The Woods at Viewcrest project produced by Northwest Ecological Services (NES) in June 2023. This memorandum is limited to wetlands and Fish and Wildlife Habitat Conservations Areas (HCAs). Other critical areas subject to regulation by the City of Bellingham (geologically hazardous areas) are addressed in separate reports.

NES senior wetland biologist Collin Van Slyke (Professional Wetland Scientist #3129) revisited the project area on May 23rd, 2024 to investigate the adjacent marine waters of Chuckanut Bay for potential wetlands. Prior to the site visit, Mr. Van Slyke reviewed several background resources pertaining to estuarine wetland habitats and existing environmental documentation for the adjacent Chuckanut Creek Pocket Estuary¹. During the May 2024 site visit, NES reviewed all areas within 150 ft of the project area for wetlands and 300 ft for HCAs required by BMC 16.55.290(B)(3) and BMC 16.55.480(B)(2).

FINDINGS

Wetlands Investigation

Datasheets and photographs from the site visit are included with this memo. The site visit occurred during a particularly low tide (-1.67 ft) to permit access across the mudflats and observe presence/absence of wetland criteria throughout the bay.

Much of the shoreline immediately below the mean higher high tide line consists of sandstone boulders, cobble, and gravel, which transitions to mudflat extending seaward. The mudflats were unvegetated and lacked eelgrass. Two sample plots (SP 200 and SP 201) were collected within the adjacent mudflats southeast of the subject parcels documenting vegetation, soil, and hydrology conditions. The datasheets documenting conditions adjacent to the proposed stormwater outfall (SP 200) and the main channel of Chuckanut Creek which exists within the mudflats (SP 201) are

¹ The adjacent waters of Chuckanut Bay extending north from the railroad causeway are often locally referred to as Mud Bay. These waters are herein referred to as the Chuckanut Creek Pocket Estuary to maintain consistency with existing habitat documentation accepted by the City of Bellingham, including the SMP, and encompasses all associated aquatic features/habitats (wetlands, mudflats, and marine waters) existing within.



NW ECOLOGICAL SERVICES

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attached hereto. The sample plots were representative of conditions throughout the bay below the rocky and gravelly beach. As expected during low tide, the soils were saturated to the surface and had been under several feet of water during high tide a few hours prior.

Soils within the sample plots consisted of approximately 0.25 inches of silt atop a fine sand containing shell fragments. The soils did not meet hydric indicators and hydrophytic vegetation (or vegetation of any kind) was not present in the sample plots or anywhere within Chuckanut Bay in the vicinity of the parcels. Due to the lack of hydric soils and hydrophytic vegetation, the mudflats depicted in Figure 1 do not meet wetland criteria defined by the federal, state, or local regulatory agencies and are instead classified as mudflats.

The following excerpts from the Corps of Engineers Wetland Delineation Manual (1987 Manual) and Code of Federal Regulations provide the legal definitions distinguishing wetlands from other aquatic habitats such as mudflats:

“The 1987 Manual is the current Federal delineation manual used in the Clean Water Act Section 404 regulatory program for the identification and delineation of wetlands... The purpose of this manual is to provide users with guidelines and methods to determine whether an area is a wetland for purposes of Section 404 of the Act... Specific objectives of the manual are to...present technical guidelines for identifying wetlands and distinguishing them from aquatic habitats and other nonwetlands.” (Environmental Laboratory, 1987 & 33 C.F.R. § 329.3)

The Corps of Engineers (Federal Register 1982) and the EPA (Federal Register 1980) jointly define wetlands as:

“Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” (Environmental Laboratory, 1987)

The Manual goes on to state:

“A minimum of one positive wetland indicator from each parameter [hydrology, hydric soil, and hydrophytic vegetation] must be found in order to make a positive wetland determination...”

The Environmental Protection Agency (EPA) identifies six categories of special aquatic sites in their Section 404 b.(1) guidelines (Federal Register 1980), including:

- a. Sanctuaries and refuges.*
- b. Wetlands.*
- c. Mudflats.*
- d. Vegetated shallows.*
- e. Coral reefs.*
- f. Riffle and pool complexes.*

Although all of these special aquatic sites are subject to provisions of the Clean Water Act, this manual considers only wetlands. By definition, wetlands are vegetated. Thus,

unvegetated special aquatic sites (e.g., mudflats lacking macrophytic vegetation) are not covered in this manual.” (Environmental Laboratory, 1987)

As observed during the May 2024 NES site visit, the mudflats within the Chuckanut Creek Pocket Estuary did not meet hydric soil indicators and were unvegetated during the growing season, both of which are required for wetland designation.

Rather the area in question plainly fits the EPA definition of mudflats:

“Mud flats are broad flat areas along the sea coast and in coastal rivers to the head of tidal influence and in inland lakes, ponds, and riverine systems. When mud flats are inundated, wind and wave action may resuspend bottom sediments. Coastal mud flats are exposed at extremely low tides and inundated at high tides with the water table at or near the surface of the substrate. The substrate of mud flats contains organic material and particles smaller in size than sand. They are either unvegetated or vegetated only by algal mats.” (40 CFR §230.42)

There has been some confusion among the public regarding the classification of the adjacent marine waters due to its identification in the Bellingham CityIQ Wetlands: Other Inventory dataset. This dataset references the U.S. Fish and Wildlife Service (UFWWS) National Wetland Inventory (NWI) data which identifies the area as E2USN: Estuarine Intertidal Unconsolidated Shore.

The following is an excerpt from the 1987 manual regarding NWI classifications:

“Consideration should be given to the relationship between the technical guideline for wetlands and the classification system developed for the Fish and Wildlife Service (FWS), U.S. Department of the Interior, by Cowardin et al. (1979). The FWS classification system was developed as a basis for identifying, classifying, and mapping wetlands, other special aquatic sites, and deepwater aquatic habitats. Using this classification system, the National Wetland Inventory (NWI) is mapping the wetlands, other special aquatic sites, and deepwater aquatic habitats of the United States...

The technical guideline for wetlands as presented in the manual includes most, but not all, wetlands identified in the FWS system. The difference is due to two principal factors: a. The FWS system includes all categories of special aquatic sites identified in the EPA Section 404 b.(1) guidelines [see above]. ...

The FWS system requires that a positive indicator of wetlands be present for any one of the three parameters, while the technical guideline for wetlands requires that a positive wetland indicator be present for each parameter [vegetation, soils, and hydrology].” (Environmental Laboratory, 1987)

For these reasons, the Chuckanut Creek Pocket Estuary is correctly classified as E2USN under the Cowardin/FWS system, but that does not imply the entirety of the estuary is wetland by definition.

While the majority of the Chuckanut Creek Pocket Estuary meets the definition of mudflats, vegetated wetlands do exist along the periphery in places (Figure 1). However, aside from Wetlands A-D documented within the NES June 2023 Wetland Delineation Update, no other wetlands were identified within 150 feet of the subject parcels.

The most notable wetland in the Chuckanut Creek Pocket Estuary is the Chuckanut Village Marsh (a Category I estuarine wetland) located approximately 1,000 ft northeast of the subject parcels. This wetland, along with two other wetlands identified in COB CityIQ were delineated and documented in association with the COB Public Works culvert replacement project located at the terminus of Fairhaven Avenue. Notably, no other wetlands were identified by the permitting agencies (COB, WDFW, and the Corps) in the vicinity of the culvert project, including the immediately adjacent marine waters/mudflats.

An additional estuarine wetland is apparent in aerial photos along the eastern side of the bay near the mouth of Chuckanut Creek, approximately 1,500 ft away from the subject parcels.

During the May 2024 site visit, the Chuckanut Village Marsh appeared to exist as previously documented, 1,000 ft northeast of the subject parcels. An additional vegetated fringe wetland (Wetland OS-1) was observed extending southeast along the shoreline, 240 ft northeast of the subject parcels (Figure 1). This 10-15 foot wide swath contained salt-tolerant hydrophytic vegetation including Pacific silverweed (*Potentilla anserina*), Baltic rush (*Juncus balticus*), and Lyngbye's sedge (*Carex lyngbyei*). Soils in this area consisted of sand and small gravel and are assumed to meet hydric indicators, though they were too rocky to be excavated with a hand shovel. Wetland OS-1 appears to be periodically inundated by the tide, as evidenced by rack deposited within the herbaceous vegetation. Wetland OS-1 appeared to lack a vegetated connection to the Chuckanut Village Marsh, but it qualifies as an estuarine intertidal emergent wetland. Wetland OS-1 is located approximately 240 ft northeast of the subject parcels at its closest point and 870 ft northeast of the proposed stormwater outfall, far outside of any potential regulatory buffer associated with the wetland.

HCAs

Additional HCAs not previously identified in the 2023 NES Critical Areas Summary or the 2024 Raedeke Wildlife Habitat Assessment include the designation of an Important Wildlife Habitat Area (per the 2021 COB Wildlife Corridor Analysis Report) within the project area. Important Wildlife Corridors are mapped along the shoreline near the southwest and southeast property corners, connecting to other Important Wildlife Habitat Areas to the east and west. This is described in detail in the 2024 Raedeke assessment. The corridor along the shoreline will be preserved and protected via a conservation easement as part of the proposed project.

The Bellingham Habitat Restoration Technical Assessment (COB, 2015) does not map any portion of the project site or immediate vicinity as within a wetland or forested area recommended for restoration or protection, but the site is within forest block #007 within a tier 2 watershed. Within the text of the document this block is described as rating very high for biodiversity and habitat functions and is recommended for protection.

REGULATORY SUMMARY

As described above, the aquatic features contained within the Chuckanut Creek Pocket Estuary (known locally as Mud Bay) include the mouth of Chuckanut Creek at the eastern extent, the Chuckanut Village Marsh at the northeastern end, Wetland OS-1, additional wetlands along the eastern shore, and tidal mudflats encompassing the majority of the estuary.

The features within the Chuckanut Creek Pocket Estuary are regulated by the Bellingham Municipal Code (BMC) under the Shoreline Management Program (Title 22) and the Critical Areas Ordinance

(BMC 16.55). BMC 16.55 requires identification and analysis of regulated critical areas within various prescribed distances from the subject parcels:

Wetlands: 16.55.290(B)(3) states “*a wetland delineation report shall provide an analysis of all wetlands and buffers on site and within 150 feet of the lot or parcel boundaries.*” The NES June 2023 Critical Areas Report documents all wetlands within 150 ft of the subject parcels. As confirmed within this June 2024 addendum, no other wetlands associated with Mud Bay exist within the adjacent 150 foot review boundary.

Wetland OS-1 is located approximately 240 ft northeast of the subject parcels at its closest point and 870 ft northeast of the proposed stormwater outfall. The maximum buffer required by COB code for any wetland category is 200 ft. Therefore Wetland OS-1 does not have a buffer extending into the parcel or any proposed development.

Fish and Wildlife Habitat Conservations Areas (HCAs): The site is identified as an Important Wildlife Habitat Area by the 2021 COB Wildlife Corridor Analysis Report. Therefore the site appears to meet the WDWF definition of a Biodiversity Area Priority Habitat. Priority habitats and species (PHS) identified by WDFW are regulated by the COB CAO as HCAs [BMC16.55.470(A)(1)(c)].

BMC 16.55.480(B)(2) states critical areas reports shall address “all habitat conservation areas and recommended buffers within 300 feet of the project area.” With the addition of the wildlife habitat area and corridors noted above, the NES June 2023 Critical Areas Report identifies all areas meeting the definition of an HCA within 300 feet of the subject property.

ATTACHMENTS

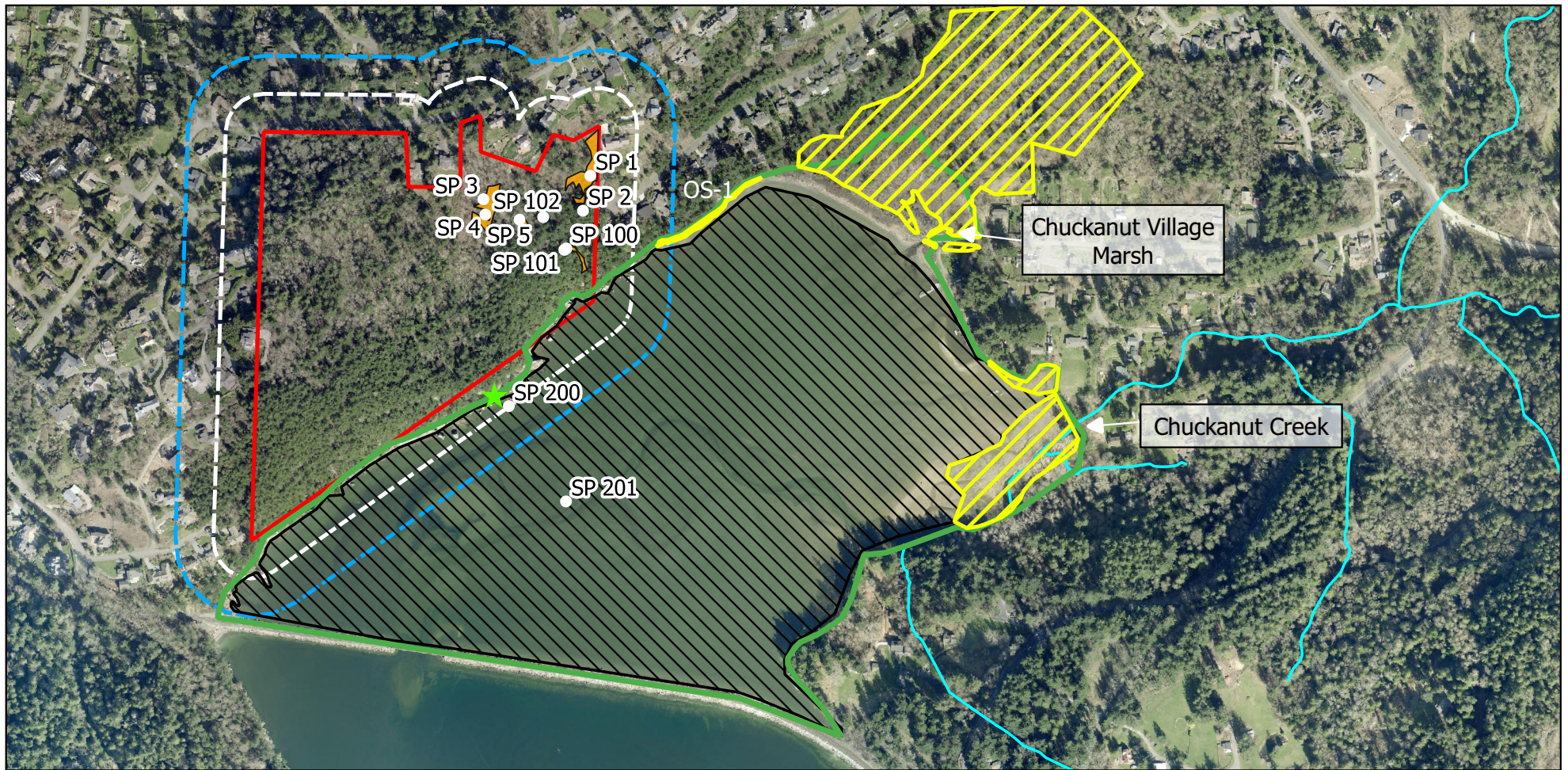
Figure 1. Wetlands and HCA Map

Photo Page

Data Sheets

REFERENCES

- Brinson, M. 1993. A Hydrogeomorphic Classification for Wetlands. U.S. Army Corps of Engineers, Washington D.C. Tech. Report WRP-DE-4.
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- Washington State Department of Fish and Wildlife. 2020c. PHS Data on the Web Interactive Map. Online at [<http://apps.wdfw.wa.gov/phsontheweb/>]. Accessed October 2020. [Cited in text as WDFW, 2020c]



ECOLOGICAL NORTHWEST	Wetlands and HCA Map The Woods at Viewcrest Critical Areas Addendum	Figure 1 August 2024
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Project area looking landward from mudflats near SP 200



Project area looking landward from mudflats near SP 201



Overview of mudflats looking towards railroad causeway from SP 201



Soils at SP 200



Soils at SP 201



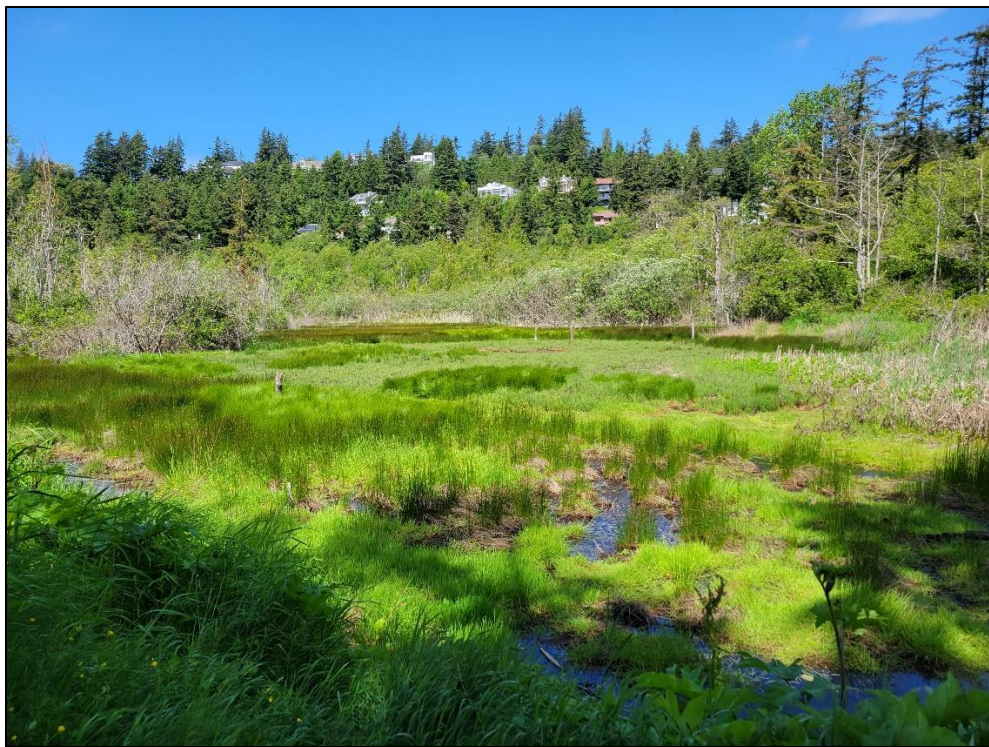
Example of gravelly shoreline



Rack line in Wetland OS -1



Wetland OS-1 (right) transitioning to gravel and mudflat extending waterward



Chuckanut Village Marsh looking north from Fairhaven Ave



Gravel berm/dune separating Chuckanut Village Marsh (right) from mudflats (left)

WETLAND DETERMINATION DATA FORM – Western Mountain, Valley Coast Region

Project Site: Viewcrest	City/County: Bellingham	Sample Date: 05/23/24
Applicant/Owner: Jones	State: WA	Sample Point: 200
Investigator: Van Slyke	Section/Township/Range: 13/37N/02E	
Landform (hillslope, terrace, etc): mudflat	Local Relief (concave, convex, none) : none	Subregion: LRR A
Soil Map Unit Name: none	NWI Classification: E2USN	
Are climatic/hydrologic conditions on the site typical of this time of year? Yes ☒ No ☐ (if no, explain in Remarks)		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)		

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

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: Plot located in vicinity of proposed stormwater outfall. Unvegetated mudflats lacking hydric soil indicators.	

VEGETATION

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Indicator Status	Dominant Species?	Dominance Test worksheet	
		-	☐	Number of Dominant Species that are OBL, FACW, or FAC:	
		-	☐	0	
		-	☐	(A)	
		-	☐	Total number of dominant species across all strata:	
Total Cover:	0			(AB)	
Sapling/Shrub Stratum (Plot size: 15 feet)				Percent of dominant species that are OBL, FACW, FAC:	
		-	☐	0	
		-	☐	(A/AB)	
		-	☐	Prevalence Index worksheet	
		-	☐	OBL species:	x 1=
		-	☐	FACW species:	x 2=
Total Cover:	0			FAC species:	x 3=
Herb Stratum (Plot size: 5 feet)				FACU species:	x 4=
		-	☐	UPL species:	x 5=
		-	☐	Total:	(A) (B)
		-	☐	Prevalence Index = B/A =	
		-	☐	Hydrophytic Vegetation Indicators:	
		-	☐	☐ Dominance Test is > 50%	
		-	☐	☐ Prevalence Index is ≤3.0 ¹	
Total Cover:	0			☐ Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
Woody Vine Stratum (Plot size: 30 feet)				☐ Wetland Non-Vascular Plants ¹	
		-	☐	☐ Problematic Hydrophytic Vegetation ¹	
		-	☐	¹ Indicators of hydric soil and wetland hydrology must be present.	
Total Cover:	0				
% Bare Ground in Herb Stratum: 0					
Remarks: Unvegetated mudflat				Hydrophytic Vegetation Present? Yes ☐ No ☒	

SOIL

Sample Point: 200

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

Depth (inches)	Soil Color		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-0.25	2.5Y 3/1	100			-	-	silt	
0.25-16+	Glau N 3/	100			-	-	fine sand	with shell fragments
					-	-		
					-	-		
					-	-		
					-	-		
					-	-		
					-	-		

¹Type: C=concentration D=depletion RM=reduced matrix ²Location: PL=pore lining RC=root channel M=matrix**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.**Restrictive Layer (if present):**

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Soil at this location did not meet NRCS hydric soil indicators.

HYDROLOGY**Wetland hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Stresses Plants (D1) (LRR A)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-stained (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)
☐ Frost-heave Hummocks (D7)
☐ FAC-neutral (D5)

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches):Water Table Present? Yes ☒ No ☐ Depth (inches): surfaceSaturation Present? Yes ☒ No ☐ Depth (inches): surface (include capillary fringe)**Wetland Hydrology Present?**Yes ☒ No ☐

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

Remarks: Soil was saturated to the surface during a -1.67' tide.

WETLAND DETERMINATION DATA FORM – Western Mountain, Valley Coast Region

Project Site: Viewcrest	City/County: Bellingham	Sample Date: 05/23/24
Applicant/Owner: Jones	State: WA	Sample Point: 201
Investigator: Van Slyke	Section/Township/Range: 13/37N/02E	
Landform (hillslope, terrace, etc): mudflat	Local Relief (concave, convex, none) : none	Subregion: LRR A
Soil Map Unit Name: none	NWI Classification: E2USN	
Are climatic/hydrologic conditions on the site typical of this time of year? Yes ☒ No ☐ (if no, explain in Remarks)		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐		
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)		

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

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: Plot located adjacent to main channel created by Chuckancut Creek within the mudflat during -1.67' tide. Unvegetated mudflats lacking hydric soil indicators.	

VEGETATION

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Indicator Status	Dominant Species?	Dominance Test worksheet	
		-	☐	Number of Dominant Species that are OBL, FACW, or FAC:	
		-	☐	0	
		-	☐	(A)	
		-	☐	Total number of dominant species across all strata:	
Total Cover:	0			0 (AB)	
Sapling/Shrub Stratum (Plot size: 15 feet)		-	☐	Percent of dominant species that are OBL, FACW, FAC:	
		-	☐	0	
		-	☐	(A/AB)	
Prevalence Index worksheet					
		-	☐	OBL species:	x 1=
		-	☐	FACW species:	x 2=
Total Cover:	0			FAC species:	x 3=
Herb Stratum (Plot size: 5 feet)		-	☐	FACU species:	x 4=
		-	☐	UPL species:	x 5=
		-	☐	Total:	(A) (B)
		-	☐	Prevalence Index = B/A =	
		-	☐	Hydrophytic Vegetation Indicators:	
		-	☐	☐ Dominance Test is > 50%	
		-	☐	☐ Prevalence Index is ≤3.0 ¹	
Total Cover:	0			☐ Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
Woody Vine Stratum (Plot size: 30 feet)		-	☐	☐ Wetland Non-Vascular Plants ¹	
		-	☐	☐ Problematic Hydrophytic Vegetation ¹	
		-	☐	¹ Indicators of hydric soil and wetland hydrology must be present.	
Total Cover:	0				
% Bare Ground in Herb Stratum: 0					
Remarks: Unvegetated mudflat				Hydrophytic Vegetation Present?	
				Yes ☐ No ☒	

SOIL

Sample Point: 201

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

Depth (inches)	Soil Color		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-0.25	2.5Y 3/1	100			-	-	silt	
0.25-16+	Glau N 2.5/	100			-	-	fine sand	
					-	-		
					-	-		
					-	-		
					-	-		
					-	-		
					-	-		

¹Type: C=concentration D=depletion RM=reduced matrix ²Location: PL=pore lining RC=root channel M=matrix**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.**Restrictive Layer (if present):**

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Soil at this location did not meet NRCS hydric soil indicators.

HYDROLOGY**Wetland hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Stresses Plants (D1) (LRR A)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-stained (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)
☐ Frost-heave Hummocks (D7)
☐ FAC-neutral (D5)

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches):Water Table Present? Yes ☒ No ☐ Depth (inches): surfaceSaturation Present? Yes ☒ No ☐ Depth (inches): surface (include capillary fringe)**Wetland Hydrology Present?**Yes ☒ No ☐

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

Remarks: Soil was saturated to the surface during a -1.67' tide.