MEMORANDUM

To: Edwin and Clover Goodsir, Project Applicants

From: Collin Van Slyke, PWS, Northwest Ecological Services (NES)

Candice Trusty, WPIT, NES

Date: January 11, 2024

RE: Critical Areas Assessment for Parcel #380320540078 – 2302 Alabama Street



BACKGROUND

Northwest Ecological Services, LLC (NES) was retained to complete a critical areas assessment for the entirety of parcel #380320540078, located at 2302 Alabama Street, within Bellingham, Washington city limits (Section 20, Township 38N, Range 03E, W.M.) (Figure 1). Accessible areas within 150 feet of the parcel boundaries were included in the review area per City code (BMC 16.55.290B) (Figure 2). The assessment performed by NES included identification of any wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, and/or shorelines as observed within the review area. It did not include identification of the following critical areas: geologically hazardous areas or critical aquifer recharge areas.

All information contained in this report is based on available information and site conditions at the time of the site visits. This report is intended for inclusion with future wetland, stream, and wildlife habitat permit applications to the City of Bellingham (COB), Washington State Department of Ecology (Ecology), Washington State Department of Fish and Wildlife (WDFW), and the U.S. Army Corps of Engineers (Corps), as may be required.

CURRENT CONDITIONS

A site reconnaissance was conducted by Collin Van Slyke (Professional Wetland Scientist [PWS] #3129) and Ellie Aosved, NES ecologists, on December 7th of 2023. Candice Trusty (Wetland Professional in Training [WPIT]), an NES ecologist, conducted a site visit on January 3rd of 2024 to delineate critical areas and document site conditions (Figure 3). The following is based on observations from the site visits and information gathered during the document review. Photographs taken at the time of the site visits are included with this memo.

The subject parcel is bound by Alabama Street to the north, a single-family residence to the west, and multi-family residences to the east and south. The subject parcel was previously developed with a single-family residence in the northwest portion of the site, which appears to have been removed sometime between 2013 and 2014. The parcel is currently undeveloped







aside from the old, compacted gravel driveway that has grown over with grass and a small set of cement stairs along the sidewalk adjacent to Alabama Street. The parcel and vicinity are zoned for multi-family residential uses.

The subject parcel is within the Whatcom Creek watershed and Fever Creek subbasin. Fever Creek flows from north to south to west, along the eastern and southern boundary of the parcel. The site slopes down from Alabama Street south to the creek at an approximately 6-7 percent gradient. The northern portion of the site is relatively flat, in the area of the previous house site, then slopes down to the creek where there is a bench above the creek. The majority of the northern portion of the parcel lacks trees and shrubs and is currently maintained as lawn. The lawn consists of red fescue (*Festuca rubra*), bluegrass (*Poa sp.*), orchard grass (*Dactylis glomerata*), velvet grass (*Holcus lanatus*), dandelion (*Taraxacum officinale*), clover (*Trifolium sp.*), hairy cat's ear (*Hypochaeris radicata*), vetch (*Vicia sp.*), creeping buttercup (*Ranunculus repens*), and moss. Two Douglas fir (*Pseudotsuga menziesii*) and an apple tree exist along the northern parcel boundary, in the lawn area.

The remainder of the site is vegetated with a variety of trees and shrubs and contains Himalayan blackberry (*Rubus armeniacus*) interspersed throughout, in some areas forming dense patches. Trees observed onsite include black cottonwood (*Populus balsamifera*), one large shore pine (*Pinus contorta*), apple trees (*Malus fusca*), and bitter cherry (*Prunus emarginata*). The understory is dominated by blackberry but also includes snowberry (*Symphoricarpos albus*), Nootka rose (*Rosa nutkana*), English holly (*Ilex aquifolium*), red osier dogwood (*Cornus sericea*), sword fern (*Polystichum munitum*), creeping buttercup, horsetail (*Equisetum arvense*), and the grass species mentioned above.

The entire subject parcel and vicinity are mapped by the NRCS Soil Survey as Urban land-Whatcom – Labounty complex, 0 to 8 percent slopes. This map unit contains 40 percent urban land, 30 percent Whatcom and similar soils (non-hydric), 20 percent Labounty, undrained and similar soils (hydric), and 10 percent minor components. Soils were documented on site at sample plots (SP) 1 and 2. Soils on site are composed of silt loams and show historic burn evidence. The soils on the bench above Fever Creek were documented at SP 1 and did not meet hydric soil indicators. Soils were also documented in the northern lawn area in the location of the previously existing house. Soils in this location (SP 2) met hydric soil indicators. However, the soils have been disturbed, as a house historically occupied this location. No indication of wetland hydrology was observed at this location or anywhere else on site. Datasheets documenting the sample plots are included with this report. No wetlands were identified on site or in the vicinity.

HABITAT CONSERVATION AREAS (HCAs)

Streams

NES delineated the ordinary high water mark (OHWM) of Fever Creek, located along the eastern and southern boundary of the subject parcel (Figure 3). Within the northern portion of the subject parcel, the stream channel is located approximately 10 feet below the grade of the

site. In the southern portion of the site, topography slopes down to a bench just above the stream channel. Fever Creek is conveyed on site from an approximately 5-ft wide concrete culvert in the northeast corner of the review area. The stream flows south along the eastern property boundary, bends 90 degrees west around the southeast corner of the site, and flows west along the southern boundary of the parcel. The stream is conveyed into another 5-ft wide concrete culvert under Xenia Street, approximately 60 feet west of the subject parcel. Fever Creek is a tributary to Whatcom Creek and discharges to Whatcom Creek approximately 0.88-miles southwest of the review area.

At the time of the site assessment, Fever Creek was flowing and was approximately 5-inches deep. A deeper pool (approximately 14 inches deep) exists at the culvert outfall where the stream flows onto the site. The OHWM was determined based on bank erosion, exposed roots, and some wrack. The southern bank was defined by a wooden embankment. Based on the OHWM, the stream elevation regularly increases by approximately 1-2 feet (as observed during the December reconnaissance). The banks are incised along the entire reach and undercut where the stream flows out of the culvert in the northeast corner of the review area.

Within the review area, the stream channel width ranges from approximately 5 to 15 feet. The stream bed is composed of sand, gravel, and cobble. Overhanging vegetation covers approximately 90 to 100 percent of the stream channel. Trash and lawn clippings were observed within the stream and along the stream bank on site. A culvert installed along the eastern boundary of Xenia Street discharges stormwater into the creek. Multiple other small pipes were also observed within the review area that appear to discharge stormwater into the creek from adjacent properties.

Fever Creek is a heavily modified stream, meandering through the Roosevelt neighborhood and light industrial land uses surrounding Iowa Street. Much of the stream is ditched or piped underground via the City stormwater system, including culverting for over one half mile upstream of the confluence with Whatcom Creek.

The entire length of Fever Creek is mapped by WDFW and DNR to be a Type-F stream (Figure 4). The stream is gradient accessible to coho (*Oncorhynchus kisutch*), Dolly Varden/bull trout (*Salvelinus malma/S. confluentus*) and fall chum (*Oncorhynchus keta*). NES did not observe any fish within Fever Creek, and none are anticipated to exist due to multiple downstream fish blockages. Nonetheless, it is considered a Type-F due to the channel morphology capability of supporting fish populations and connectivity to other fish-bearing waters (Whatcom Creek).

Lakes and Ponds

No lakes or ponds were observed or are mapped within the immediate vicinity of the review area.

Wildlife

Big brown bat (*Eptesicus fuscus*) occurrence is mapped by WDFW within the township. The subject site does not contain hibernacula or day roost structures. However, riparian areas exist

on site which may be utilized for foraging habitat. Usage of the site is likely limited to twilight and evening hours during foraging. No bats were observed during the site visits.

NES did not observe any state or federally Threatened, Endangered, or Candidate species, or state Priority species, within the subject parcel or immediate vicinity. No COB mapped Important Wildlife Habitat Areas or Important Wildlife Corridors are mapped within the vicinity of the review area. Wildlife usage of the site is likely limited due to the surrounding roadways and high-density residential development. Overall, the site contains suitable foraging habitat and refugia for wildlife species that are well adapted to the urban environment such as deer, songbirds, raptors, and other small mammals (squirrels, racoon). Songbirds and evidence of deer were observed on site.

WETLANDS

No wetlands were identified by NES within the subject parcel or immediate vicinity. COB mapping does not indicate any site-specific delineations or wetland inventory wetlands within the subject parcel or immediate vicinity.

FREQUENTLY FLOOD AREAS AND SHORELINES

The subject parcel is not within the Federal Emergency Management Agency (FEMA) mapped special flood hazard area (SFHA). COB maps potential wetlands along the majority of the length of Fever Creek (onsite and offsite), within their frequently flooded areas mapping layer. However, the site is not mapped within a floodplain.

The subject parcel is outside of COB shoreline management program (SMP) jurisdiction.

REGULATIONS

Critical areas identified on site are limited to the one perennial, fish-bearing stream (Fever Creek), as detailed in Figure 3. Table 1 summarizes the anticipated regulatory status and current anticipated buffer widths.

Table 1. Critical Areas Summary

	Stroom		Dogulated			
Feature	Stream Type	City of Bellingham	Corps	Ecology	WDFW	Regulated Buffer (ft)
Fever Creek	F	Х	Х	Х	Х	75

City of Bellingham (COB)

The COB critical areas ordinance (CAO) states that no activity may be conducted within a regulated wetland, stream, or buffer without critical areas review and approval. Fever Creek is under the jurisdiction of the COB CAO as a Habitat Conservation Area (HCA). The COB requires a buffer around regulated HCAs to protect functions. **As a fish-bearing stream, Fever Creek is anticipated to require a minimum 75-ft standard buffer.**

The COB requires that buildings and other structures be **set back a minimum of 15 feet from the edge of critical area buffers**, or from the critical areas where no buffer is required (BMC 16.55.340(G)). Uses allowed within the 15-foot setback include: landscaping; uncovered decks; building overhangs; impervious surfaces such as driveways, roads, parking lots, and patios, provided that they conform to applicable water quality standards and that construction equipment does not enter or damage the buffer or critical area. Clearing and grading and wells are also allowed within the setback.

Ecology

Ecology has authority over discharge into all wetlands (including isolated wetlands) and streams and can impose buffers and compensatory mitigation for impacts. Ecology reviews all permits received by the Corps for 401 Water Quality Certification. Ecology requires an "individual" review of all wetland disturbances greater than one-half acre. Water Quality Certification is required for all Individual Permit applications.

WDFW

WDFW requires issuance of a Hydraulic Project Approval (HPA) prior to any activities that may directly or indirectly affect streams or associated wetlands. The WDFW is anticipated to regulate activities occurring below the OHWM of Fever Creek, as it meets the definition of a "water of the state" (RCW 77.55.011(26).

The Corps

The Corps regulates the discharge of dredged or fill material into wetlands, streams, and other drainages that connect to Waters of the United States (WOTUS) under Section 404 of the CWA. The Corps regulates structures and/or work in or affecting the course, condition, or capacity of WOTUS under Section 10 of the Rivers and Harbors Act of 1899. The Corps requires notification for all disturbances to wetlands, streams, and potentially to other drainages (ditches). It is incumbent upon the landowner to disclose disturbances.

The Environmental Protection Agency (EPA) and the Corps have published a final rule defining the scope of waters federally regulated under the Clean Water Act. Jurisdictional waters include Traditional Navigable Waters (TNWs), tributaries, impoundments of jurisdictional waters (lakes and ponds), and adjacent wetlands (CFR Title 33 Chapter II Part 328) (40 CFR 122.2). The recent supreme court case (the Sackett Decision, May 2023) may affect how/ if wetland onsite are regulated, and guidance on this decision has yet to be published.

Only the Corps has the authority to make jurisdictional determinations; however, the following is a description of the anticipated determination. Fever Creek is a perennial stream and tributary to Whatcom Creek which flows into Bellingham Bay (a TNW), and is anticipated to be regulated by the Corps.

Activities in Waters of the United States that require Corps authorization may qualify for authorization under one of the general Nationwide Permits (NWPs) if the activities meet the

criteria. In the more commonly used NWPs, discharge (fill) is limited to under 1/2 acre of wetland, 300 linear feet of stream, and 1/3 acre of tidal waters. Discharge exceeding the NWP thresholds requires an Individual Permit from the Corps. Mitigation is required for most activities. The Corps also has discretion to disallow disturbance to high quality wetlands. As part of their permit review, the Corps must verify the project complies with Section 7 of the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act, and Section 106 of the National Historic Preservation Act, (including archeological sites).

Only the above agencies have the authority to make jurisdictional determinations.

FUTURE DEVELOPMENT PROPOSALS

Local, state, and federal agencies require projects adjacent to wetlands, streams, or wildlife HCAs, and/or shorelines apply mitigation sequencing. The applicant must demonstrate that all reasonable efforts have been taken to mitigate impact to these critical areas in the following, prioritized, order: 1) Avoid, 2) Minimize, 3) Rectify, 4) Reduce, 5) Compensate. The COB CAO allows for reduction of stream buffers by up to 25 percent of the standard buffer. Proposals requiring further reduction are anticipated to require a variance from code.

ATTACHMENTS:

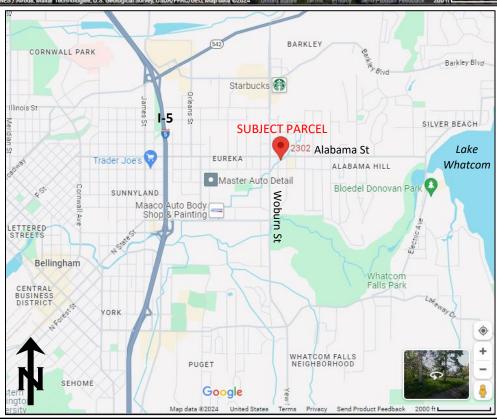
Figures

- 1. Vicinity Maps
- 2. 2022 Aerial Photograph (CityIQ)
- 3. Critical Areas Map (NES)
- 4. WDFW SalmonScape Map

Photo Page

Data Sheets







Vicinity Maps (Google Maps)

2302 Alabama Street (Parcel #380320540078) Critical Areas Assessment Figure 1

JAN 2024



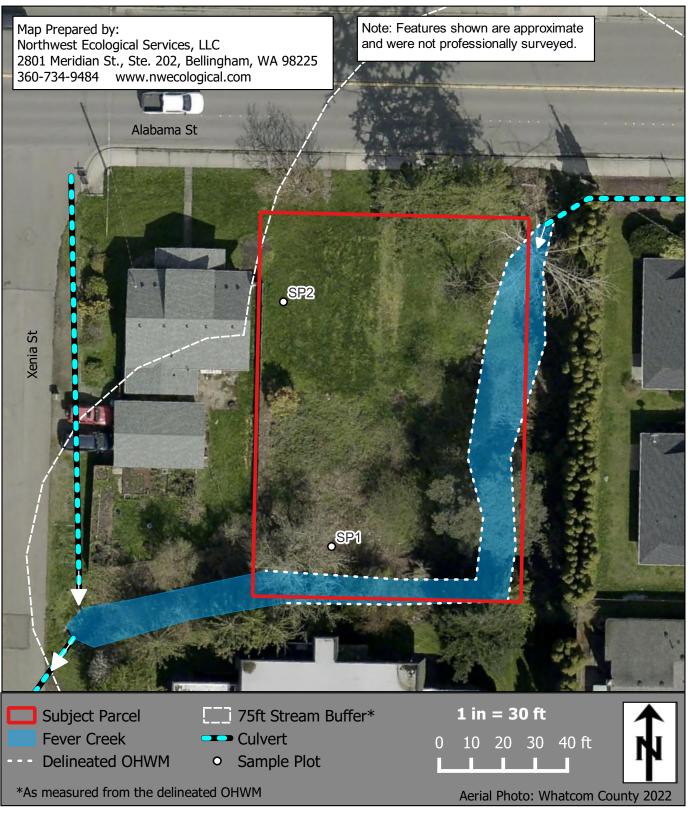


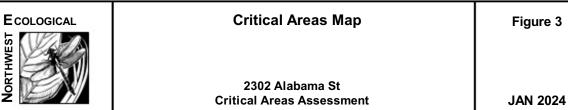
Northwest

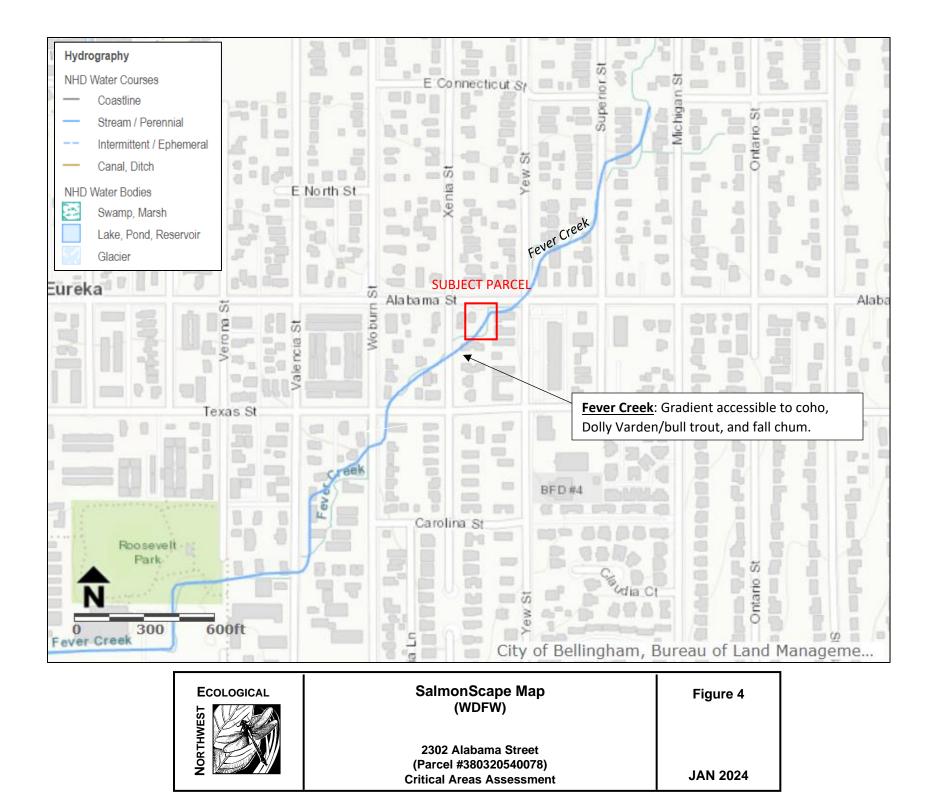
2022 Aerial Photo (Bellingham CitylQ)

2302 Alabama Street (Parcel #380320540078) Critical Areas Assessment Figure 2

JAN 2024









Site Overview: From NW corner of parcel facing south



Site Overview: From NW corner of parcel facing east



Site Overview: From NW corner of parcel facing southeast



Fever Creek, culvert flowing into the review area



Detail of Fever Creek – within northern portion of creek facing north



Detail of Fever Creek – from SW property boundary facing east



Detail of Fever Creek – within northern portion of creek facing south



Fever Creek flowing into culvert under Xenia Street (off site)

WETLAND DETERMINATION DATA FORM - Western Mountain, Valley Coast Region

City/County: City of Bellingham Sample Date: 01/03/2024

Project Site: 2302 Alabama Street

Applicant/Owner: Eddie Goodsir		5	State: WA Sample Point: 1				
Investigator: Candice Trusty	n/Township/F	Range: Section 20, Township 38N, Range 03E					
Landform (hillslope, terrace, etc): terrace	Loca	al Relief (cor	cave, convex	, none): none Subre	gion: LRR A		
Soil Map Unit Name: Urban land-Whatcom-Labounty	complex, 0	to 8 percent	t slopes	NWI Classification: nor	ne		
Are climatic/hydrologic conditions on the site typical	of this time	of year? Ye	s 🛛 No 🗌	(if no, explain in Remarks)			
Are Vegetation ☐, Soil ☐, or Hydrology ☐ signification	cantly distur	rbed? A	Are "Normal C	circumstances" present? Yes	⊠ No □		
Are Vegetation , Soil , or Hydrology natura				plain any answers in Remark			
SUMMARY OF FINDINGS - Attach site map							
Hydrophytic Vegetation Present? Yes ⊠ No [
Hydric Soil Present? Yes ☐ No [\boxtimes		Is the	Sampled Area within a Wetla	nd?		
Wetland Hydrology Present? Yes ☐ No [\boxtimes			Yes 🗌 No 🖂			
Remarks: Upland bench adjacent to Fever Creek. Hy soils were not hydric and no wetland hydrology indic date have been wetter than normal.							
VEGETATION	Absolute	Indicator	Dominant				
Tree Stratum (Plot size: 15 feet)	% Cover	Status	Species?	Dominance Test worksheet			
		-	п	Number of Dominant Speci that are OBL, FACW, or FAC			
		-	П	tilat are OBL, FACW, OF FAC	2+		
		-	П		(A)		
		-		Total number of dominant	3		
Total Cover:	0			species across all strata: (AB			
Sapling/Shrub Stratum (Plot size: 15 feet)				Percent of dominant specie	. ,		
		_	П	that or OBL, FACW, FAC:	66+		
		-	П		(A/AB)		
		-	П	Prevalence Index workshee			
		-		OBL species:	x 1=		
		-	Н	FACW species:	x 2=		
Total Cover:	0			FAC species:	x 3=		
Herb Stratum (Plot size: 5 feet)	0			FACU species:	x 4=		
Poa sp.	60		Ø	UPL species:	x 5=		
Ranunculus repens	30	FAC	X	Total: (A)			
Festuca rubra	10	FAC		` '	(B)		
	-	-		Prevalence Index = B/A =			
Taraxacum officinale	5	FACU		Hydrophytic Vegetation Ind			
Dactylis glomerata	5	FACU		Dominance Test is > 50			
		-		Prevalence Index is ≤3.			
Total Cover:	110			 Morphological Adaptati supporting data in Ren 			
Woody Vine Stratum (Plot size: 30 feet)			ı	supporting data in Ken separate sheet)	naina Ul Ull a		
Rubus armeniacus	60	FAC	⊠	Wetland Non-Vascular I	Plants ¹		
		-		☐ Problematic Hydrophyti			
Total Cover: % Bare Ground in Herb Stratum: 10 (20% cover of moss spp.)	60			Indicators of hydric soil and w must be present.	_		
Remarks: The majority of dominant species observe	d at this loc	ation were h	vdrophytic	Lhadanahada M	lan DrasantO		
	a ac (1115 100)	44511 WOLE II	, a. opriyao.	Hydrophytic Vegetati			
				Yes ⊠ No	· 🗆		

SOIL Sample Point: 1

Depth	th Soil Color			Redox Features							
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc2	Texture		Remarks	
0-16	10YR 3/2	98	10YI	R 4/3	1-2	С	М	silt loam		Concentrations are faint. Some charcoal and colorations from burn are mixed into the layer.	
						-	-				
						-	-				
						-	-				
						-	-				
						-	-				
¹Type: C=	concentration D=	depletion	RM=redu	ced matri	x ² Locati	on: PL=po	re lining l	RC=root	chan	nel M=matrix	
Hydric So	il Indicators: (app	licable to	all LRRs (ınless oth	erwise note	ed)			Indi	cators for Problematic Hydric Soils3:	
Histos	sol (A1)		Г	Sandy R	edox (S5)					2 cm Muck (A10)	
☐ Histic	Epidedon (A2)	l F] Stripped	Matrix (S6)				Red parent material (TF2)		
	Histic (A3)				lucky Mine		xcept MLI	RA 1)	ا ــــــــــــــــــــــــــــــــــــ	Very shallow dark surface (TF12)	
_	gen Sulfide (A4)				leyed Matri			,		Other (Explain in Remarks)	
☐ Deple	ted Below Dark S	urface (A1	.1)	Depleted	d Matrix (F3	3)					
☐ Thick	Dark Surface (A1	2)	1	Redox D	ark Surface	(F6)					
Sandy	Mucky Mineral (S1)	۱Ē] Depleted	d Dark Surf	ace (F7)			3Ind	dicators of hydrophytic vegetation ar	
☐ Sandy Gleyed Matrix (S4) ☐ Redox Depressions (F8)								wet	land hydrology must be present.		
Restrictiv	e Layer (if preser	nt)•									
	туре:							Hydric S	oil Pre	esent? Yes 🗌 No 🖂	
	Depth (inches):						•	.,	•		
Remarks	: Soil at this locat	ion did not	meet NR	CS hydric	soil indicat	ors.					
HYDROL	.OGY										
	hydrology Indicate		is suffici	ent)						Secondary Indicators (2 or more required)	
Surfac	ce Water (A1)			Spar	sely Vegeta	ted Conca	ave Surfa	ce (B8)		☐ Water-stained (B9) (MLRA	
						eaves (B9	aves (B9) (except MLRA 1, 2,			1,2,4A, and 4B)	
Saturation (A3)					4A and 4B)					☐ Drainage Patterns (B10)	
☐ Water	marks (B1)	Salt Crust (B11)						☐ Dry-season Water Table (C2)			
☐ Sediment Deposits (B2) ☐ Aquatic I						rates (B1	.3)		Saturation Visible on Aerial		
☐ Drift Deposits (B3)					Hydrogen Sulfide Odor (C1)					Imagery (C9)	
Algal I	Mat or Crust (B4)	Oxidized Rhizospheres along living roots (C3)					Geomorphic Position (D2)				
☐ Iron Deposits (B5)					ence of Red		Shallow Aquitard (D3)				
					Recent Iron Reduction in Tilled Soils (C6)					Frost-heave Hummocks (D7)	
☐ Inund	ation Visible on A	erial Imag	ery (B7)	_	ted or Stres			RR A)		FAC-neutral (D5)	
Flaid Ot-				Uthe	r (Explain i	n Kemarks	5)				
	ervations:	V00 🗆	No Ed D	anth (in-l-	20).						
	Vater Present?	_	_	epth (inch						Wetland Hydrology Present?	
	ble Present? n Present?	_	_	epth (inch epth (inch	,	General cont	capillary f	:		Yes □ No □	

Remarks: No wetland hydrology indicators were observed at this location.

WETLAND DETERMINATION DATA FORM - Western Mountain, Valley Coast Region

State: WA

City/County: City of Bellingham Sample Date: 01/03/2024

Sample Point: 2

Yes 🛛 No 🗌

Project Site: 2302 Alabama Street

Applicant/Owner: Eddie Goodsir

Investigator: Candice Trusty		Section	n/Township/F	Range: Section 20, Towr	nship 38	BN, Range 03E		
Landform (hillslope, terrace, etc): terrace	Local Relief (concave, convex, none): none Subregion: LRR A							
Soil Map Unit Name: Urban land-Whatcom-Labounty								
Are climatic/hydrologic conditions on the site typical	of this time	of year? Ye	s 🛛 No 🗌	(if no, explain in Remark	ks)			
Are Vegetation ☐, Soil ☐, or Hydrology ☒ signific	cantly distur	bed? A	re "Normal C	Circumstances" present	? Yes 🛚	No 🗌		
Are Vegetation, Soil, or Hydrology natural	lly problema	tic? (If needed, ex	plain any answers in Re	marks.)			
SUMMARY OF FINDINGS - Attach site map	showing s	sampling p	oint location	ns, transects, importa	ant feat	tures, etc.		
Hydrophytic Vegetation Present? Yes ⊠ No [Hydric Soil Present? Yes ⊠ No [Wetland Hydrology Present? Yes □ No [5		Is the Sampled Area within a Wetland? Yes No \(\subseteq \)					
Remarks: Upland lawn, in location of previous house hydric indicators. However, soils have been disturbe was observed at this location. Precipitation condition	d, as a hous	e has histor	ically occipie	d this area. No indicatio				
VEGETATION								
Tree Stratum (Plot size: 15 feet)	Absolute % Cover	Indicator Status	Dominant Species?	Dominance Test worksheet				
	76 COVE	Status	Species	Number of Dominant		:		
		_	П	that are OBL, FACW, o	r FAC:	2		
		-	П			(A)		
				Total number of domin	nant	2		
Total Cover:	0			species across all stra	(AB)			
Sapling/Shrub Stratum (Plot size: 15 feet)	U			Percent of dominant s	necies	(/10)		
Caping office Cactain (Floresizes 20 1000)		-	П	that or OBL, FACW, FA		100		
		-	П			(A/AB)		
		-	П	Prevalence Index work	reheet	(19112)		
				OBL species:		x 1=		
		-	H	FACW species:		x 2=		
Total Cover:	0			FAC species:		x 3=		
Herb Stratum (Plot size: 5 feet)	Ū			FACU species:		x 4=		
Festuca rubra	60	FAC	Ø	UPL species:		x 5=		
Holcus lanatus	30	FAC	×	Total:	(A)	(B)		
Poa sp.	10	-		Prevalence Index = B/		(-/		
Ranunculus repens	7	FAC	П	Hydrophytic Vegetatio		ators.		
Vicia sp.	5	-		Dominance Test is				
Hypochaeris radicata	2	FACU	H	☐ Prevalence Index i				
Total Cover:	114			Morphological Ada				
Woody Vine Stratum (Plot size: 30 feet)				supporting data in separate sheet)				
		-		☐ Wetland Non-Vaso	ular Pla	ants1		
	_	-		Problematic Hydro	phytic \	/egetation1		
Total Cover: % Bare Ground in Herb Stratum: 0 (10% cover of moss spp.)	0			¹ Indicators of hydric soil must be present.	and wetl	and hydrology		
Remarks: The majority of dominant species observe	d at this loca	ation were h	ydrophytic.	Hydrophytic Ve	getation	Present?		

SOIL Sample Point: 2

Depth	Soil Cold	Soil Color		Redox Features							
(inches)	Color (moist)	%	Color ((moist)	%	Type ¹	Loc2	Texture		Remarks	
0-13	10YR 3/1	95	10YF	R 4/4	5	С	М	silt lo	Charcoal and colorations from burn mixed into layer		
13-17	13-17 2.5Y 6/2 80 1			R 5/6	20	С	М	silt loam			
						-	-				
						-	-				
						-	-				
					-						
¹Type: C=	concentration D=	depletion	RM=redu	iced matri	x ² Locati	on: PL=po	re lining l	RC=root	chan	nel M=matrix	
Hydric So	il Indicators: (app	licable to	all LRRs u	unless oth	erwise note	ed)			Indi	cators for Problematic Hydric Soils3	
Histos	ol (A1)] Sandy R	edox (S5)					2 cm Muck (A10)		
☐ Histic	Epidedon (A2)	Stripped Matrix (S6)						Red parent material (TF2)			
☐ Black Histic (A3) ☐ Loamy Mucky M						ral (F1) (e:	xcept ML	/ery shallow dark surface (TF12)			
☐ Hydro	gen Sulfide (A4)			Loamy G	eyed Matri	x (F2)	F2)				
☐ Deplet	ted Below Dark Si	urface (A1	1)	Depleted Matrix (F3)							
☐ Thick Dark Surface (A12) ☐ Redox Dark					ark Surface	e (F6)					
☐ Sandy	Mucky Mineral (S	S1)		Depleted	Dark Surf	ace (F7)		3Ind		dicators of hydrophytic vegetation ar	
Sandy Gleyed Matrix (S4)				Redox D	epressions	(F8)		wetland hydrology mus		and hydrology must be present.	
Restrictiv	e Layer (if presen	t):									
	Туре:						I	Hydric S	oil Pre	esent? Yes 🖂 No 🗌	
	Depth (inches):										
Remarks:	Soil at this locati	on did not	meet NR	CS hydric	soil indicat	ors.					
HYDROL	.OGY										
	nydrology Indicato		is sufficie	ent)						Secondary Indicators (2 or more required)	
Surfac	ce Water (A1)			Span	sely Vegeta	ited Conca	ave Surfa	ce (B8)		☐ Water-stained (B9) (MLRA	
_	gh Water Table (A2)					(DO				1,2,4A, and 4B)	

Wetland hydrology Indicators: Primary Indicators (any one indicator is suffic	ient)	Secondary Indicators (2 or more required)	
□ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Water marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) □ Inundation Visible on Aerial Imagery (B7)	Sparsely Vegetated Concave Surface (B8) Water-stained Leaves (B9) (except MLRA 1, 2, 44 and 48) 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)	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)	
		Wetland Hydrology Present? Yes □ No ⊠ iilable:	