



## ATTACHMENT A

### **Wetland Delineation Methodology**

## WETLAND IDENTIFICATION AND DELINEATION

Parametrix biologists used the methods specified in the U.S. Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987) and the indicators described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Corps 2010) to delineate on-site wetlands.

Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater 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. An area must meet these three criteria or exhibit at least one positive field indicator of wetland vegetation, soils, and hydrology to be considered a wetland. Wetland determination data forms from the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Corps 2010) were recorded for each wetland.

### Vegetation

During the field investigations, the biologists observed the dominant plant species and recorded each on a data form for each sample plot. They evaluated dominant plants and their wetland indicator status to determine whether the vegetation was hydrophytic. Hydrophytic vegetation is generally defined as vegetation adapted to prolonged saturated soil conditions. To meet the hydrophytic vegetation criterion, more than 50 percent of the dominant plants must be Facultative, Facultative Wetland, or Obligate, based on the plant indicator status category assigned to each plant species by the Corps (Corps 2020).

Scientific and common plant names follow currently accepted nomenclature. Most names are consistent with Flora of the Pacific Northwest (Hitchcock and Cronquist, 2nd Edition 2018), Plants of the Pacific Northwest Coast (Pojar and MacKinnon 2004), and the U.S. Department of Agriculture (USDA) PLANTS Database (USDA 2020). However, scientific names listed in the 2020 National Wetland Plant List (Corps 2020) were used as the final authority in preparing determination forms and determining species indicator status.

### Soils

Generally, an area must have hydric soils to be a wetland. Hydric soil forms when soils are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper layers. Biological activities in saturated soil result in reduced oxygen concentrations that create a preponderance of organisms using anaerobic processes for metabolism. Over time, anaerobic biological processes produce certain color patterns in mineral soils and/or enhance accumulation of organic soils (e.g., peat), which are used as field indicators of hydric soil. Typically, low-chroma colors are formed in the soil matrix. Bright-colored redoximorphic features form within the matrix under a fluctuating water table. Other important hydric soil indicators include organic matter accumulations in the surface horizon, reduced sulfur odors, and organic matter staining in the subsurface. Soils were examined by excavating sample plots to a depth of 16 inches or more, wherever feasible, to observe soil profiles, colors, and textures. Munsell color charts (Munsell Color 2015) were used to describe soil colors and the Field Book for Describing and Sampling Soils (Schoeneberger et al. 2012) was used to describe the soil texture class.

### Hydrology

The study area was examined for evidence of hydrology. An area is considered to have wetland hydrology when soils are ponded or saturated consecutively for 12.5 percent of the growing season (Environmental Laboratory 1987). The growing season generally occurs from late February (February 27) to late November (November 21) (based on SeaTac Airport weather station climate data). Therefore, ponding or saturation must be present for approximately 33 consecutive days within the growing season. Wetland hydrology is determined by the identification of specific indicators described in the regional supplement (Corps 2010). The observation of one primary indicator or two secondary indicators is a positive indication of wetland hydrology. The project is located in Major Land Use Area 2, within Land Resource Region A (Corps 2010; NRCS 2006). Within these regions, primary and secondary indicators of hydrology are described by group and comprise:

- Group A (Observation of Surface Water or Saturated Soils): Surface inundation, high water table, and saturated soils.
- Group B (Evidence of Recent Saturation): Water marks, sediment and drift deposits, algal mats, iron deposits, surface soil cracks, inundation visible on aerial imagery, sparsely vegetated concave surfaces, salt crusts, and aquatic invertebrates. *Secondary*: Water-stained leaves and drainage patterns.
- Group C (Evidence of Current or Recent Soil Saturation): Hydrogen sulfide odor, oxidized rhizospheres along living roots, presence of reduced iron, and recent iron reduction in tilled soils. *Secondary*: Dry-season water table and saturation evident on aerial imagery.
- Group D (Evidence from Other Site Conditions or Data): Stunted or stressed plants. *Secondary*: geomorphic position, shallow aquitard, vegetation Facultative-neutral test, raised ant mounds, and frost-heave hummocks.



## ATTACHMENT B

### **Sound Transit's Stream Habitat Assessment Guidelines**



# **STREAM HABITAT ASSESSMENT GUIDELINES**

January 2016

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# SOUND TRANSIT STREAM HABITAT ASSESSMENT GUIDELINES

## 1. Introduction

Sound Transit projects often intersect with and affect streams. To comply with local, state, and federal rules and regulations, Sound Transit assesses stream conditions, determines stream impacts that will occur as a result of a project, and mitigates those impacts as appropriate. The analytical methodologies used and level of detail needed to meet these requirements depends on a variety of factors including: 1) the stage of project development and complexity of the project, 2) the extent to which Sound Transit has property access to streams, and 3) the magnitude of impact. Less detailed information is typically collected during planning and early design stages such as during SEPA/NEPA environmental review and preliminary engineering because rights-of-entry are not granted onto privately owned properties, thus restricting access to streams. Also, at this stage, multiple alternative alignments may be under consideration, making more labor-intensive field investigations less feasible from the standpoint of cost and time. At later stages of project development, once the project to be built is selected or final design is underway, more detailed analyses may be appropriate depending on access, the magnitude of potential impacts, and the types of environmental permits that may be necessary to construct the project.

Various methodologies exist on how to approach stream assessments in Washington and no one methodology is required, or is applicable to all projects or to all stages of project development. In addition, Native American tribes with fishing rights often request specific information about the effects of a project on both existing fish use and potential fish use of a stream. In this context, Sound Transit seeks to achieve greater consistency in how it approaches the assessment of streams at various stages of project development and under various conditions. The purpose of this document is to establish general guidelines for applying various stream assessment methods to Sound Transit projects based on the most commonly used methodologies in Washington. The information presented herein is for guidance only and is based on some of the most common scenarios encountered on Sound Transit projects. Sound Transit recognizes that other scenarios are possible and that professional judgment will be necessary when considering the best approach for specific projects. Proper application of professional judgment may reduce the collection of extraneous information, and reduce project effort and expense. The intent of these guidelines is to provide some level of consistency in Sound Transit's approach to assessing streams so that local, state, and federal regulators generally know what to expect during project reviews.

For the purposes of this document, project development is categorized into two phases: the initial environmental review and preliminary engineering phase (Phase 1) and the permitting/final design phase (Phase 2). These are further described below:

- **Phase 1 Projects** – Planning stage that includes environmental review under SEPA/NEPA and conceptual and preliminary design. At this stage, various alignments or sites may initially be under consideration, and Sound Transit may or may not have rights-of-entry to the properties being evaluated. In general, objectives at this stage of project development are to:

- 1) Identify streams within the study area
- 2) Characterize in-stream and riparian conditions (including fish use and barriers to fish use of the stream) based on readily available information and visual observations as possible
- 3) Determine potential impacts to streams for the alternative(s) under consideration during the environmental review process, and
- 4) Identify conceptual-level mitigation opportunities for impacts to streams (aquatic and riparian habitats).

Phase 1 projects may include Endangered Species Act consultation, with the overall objective of being able to make and support accurate effect determinations for federally listed aquatic species potentially occurring in affected streams. Phase 1 of Sound Transit's project development culminates with completion of the NEPA/SEPA environmental review process and Sound Transit's selection of a specific project alternative to build.

- **Phase 2 Projects** – Final project design stage that includes environmental permitting and detailed mitigation to address project-related impacts to streams. At this stage, full access is typically available for the project. The overall objective is to secure necessary environmental permits/approvals including but not limited to local critical areas permits, a Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife (WDFW), a Clean Water Act Section 404 permit from the United States Army Corps of Engineers (Corps), and a 401 Water Quality Certification or Coastal Zone Management Consistency Determination from the Washington State Department of Ecology (Ecology).

Section 2 of this guidance document, **Using the Stream Assessment Flowcharts**, helps guide the reader in determining the appropriate level of data collection during the two project phases described above. To do this, a flowchart has been created for Phase 1 and Phase 2 projects, taking into account various project variables. The flowcharts and overview of how to use them are provided in Section 2. The flowcharts in Section 2 are supported by additional tools and more detailed information on various methodologies described in **Section 3 - Data Collection for Key Aquatic Habitat Elements**. Both Section 2 and Section 3 are organized around five stream features, referred to as Key Aquatic Habitat Elements and described below.

General recommendations for the appropriate use of these guidelines, as well as a discussion of their limitations, are provided in **Section 4 - Considerations and Limitations**.

## 2. Using the Stream Assessment Flowcharts

The flowcharts should be used to determine the appropriate data needs and level of field assessment that will be required for a project. Working through the flowcharts with site specific information will require the collection of qualitative and/or quantitative information on various Key Aquatic Habitat Elements. These elements are the key habitats and stream features that may be impacted by a project and are directly related to ecological functions that support a stream ecosystem. The Key Aquatic Habitat Elements are:

- *riparian vegetation,*
- *physical in-stream habitat,*
- *biological connectivity,*



- *water quality and quantity, and*
- *fish presence, fish habitat use, and stream typing.*

Information would be gathered during site visits or collected using specific survey techniques. The various “levels” of data collection for each Key Aquatic Habitat Element have been classified into one of three categories, or “Tracks”. Tracks A, B, and C represent an increasing level of detail for data collection and generally correlate to the phase of the project, the extent to which access is available, and/or the magnitude of stream impact.

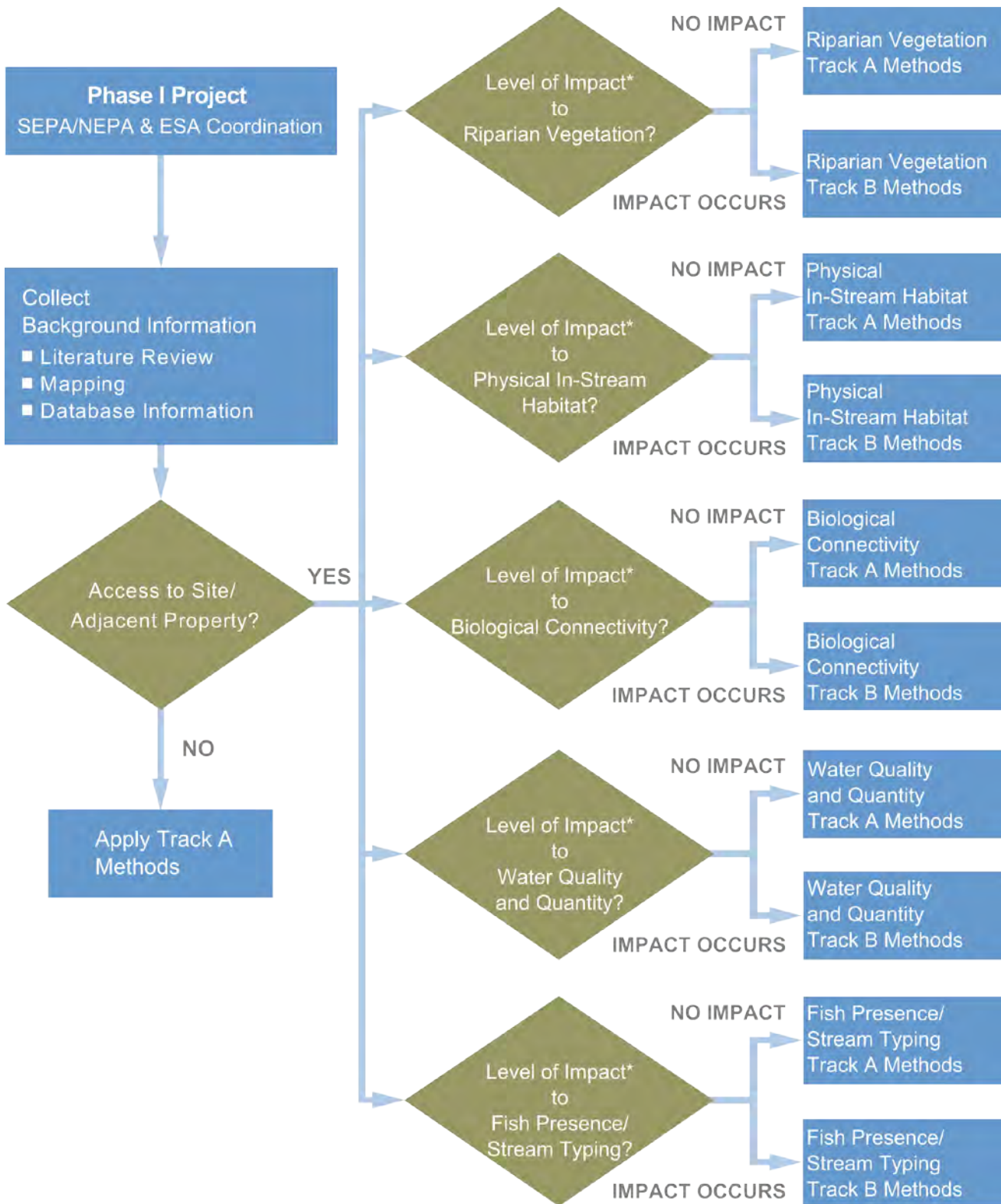
## 2.1 Phase I Projects

Figure 1 on page 4 is the stream assessment flowchart for planning-level projects. It shows the general process to follow when considering potential stream impacts associated with Phase 1 projects. For all Phase 1 projects that include stream habitats, regardless of access or impact level, the first step is to collect background information on each of the Key Aquatic Habitat Elements associated with each stream in the study area. To help guide these efforts, see **Section 3 – Data Collection for Key Aquatic Habitat Elements**. Section 3 includes more detailed information on specific data sources to consult when collecting this information. The information gathered will help form the basis of the *Existing Conditions* or *Affected Environment* section of the environmental document being prepared for the project.

After collecting background information, some level of data should also be collected in the field. The data collected and the stream assessment methods used will vary for Phase 1 projects depending on 1) whether or not impacts are anticipated impact, and 2) whether or not the project team has right-of-entry to parcels that contain streams.

If access is limited, Track A Methods should be used for each Key Aquatic Habitat Element to the extent feasible. Areas where access to streams is not limited include existing Sound Transit right-of-way, WSDOT right-of-way, or other publicly-owned rights-of-way such as parks. In these areas, the project team should consider the anticipated level of impact to each Key Aquatic Habitat Element. The level of analysis required for a given Key Aquatic Habitat Element should be commensurate with the potential for impacts at a given site. In order to appropriately size the analysis, the flowchart requires consideration of whether or not impacts are expected to occur within the stream environment, looking in turn at each of the Key Aquatic Habitat Elements. For Phase 1 projects, a simple determination of either “Impact” or “No Impact” should be made for each Key Aquatic Habitat Element as presented in Table 1 (see page 5). The results of this analysis will help determine the level of data collection and analysis appropriate for each ecological function. If impacts are anticipated, the project study team should coordinate with Sound Transit environmental staff before initiating Track B data collection efforts as the data may already have been gathered by others or a shift in the project footprint may occur that negates the need to do more detailed surveys.

Depending on the outcomes from using the stream assessment flowchart for Phase 1 projects, various levels of data collection (either Track A or Track B) will need to be conducted. For information on specific stream habitat assessment methods to use under Track A or Track B, refer to **Section 3 – Data Collection for Key Aquatic Habitat Elements**. Tables 3 and 4 in that section outline pertinent assessment methods for each Key Aquatic Habitat Element, including detailed information on specific analysis metrics and survey methods that may be appropriate under Tracks A and B.



\*See Table 1 in *Sound Transit Stream Habitat Assessment Guidelines* document to assess level of impact

Figure 1  
Stream Assessment Flowchart for Sound Transit Phase 1 Projects

**Table 1 Impact Classification for Phase I Projects Based on Impacts to Key Aquatic Habitats**

Key Aquatic Habitat Element	Impact Classification	
	No Impact	Impact
Riparian Vegetation	No clearing within riparian zone	Clearing riparian vegetation, OR Removing significant trees <sup>1</sup>
Physical In-Stream Habitat	No in-water work or disturbance to bed and streambank below OHWM <sup>2</sup>	Working in-water involving bank hardening, OR Installing fish habitat features (e.g., LWD <sup>3</sup> or boulders), OR Altering substrate
Biological Connectivity	No installation, removal, or alteration of culverts, bridges, weirs, or other potential passage barriers	Replacing or installing culverts, weirs, or bridges in non-fish bearing waters
Water Quality and Quantity	No new stormwater discharges or increases in impervious surface	Adding new stormwater discharges or increasing impervious surface
Fish Presence, Fish Habitat Use, and Stream Typing	No in-water or riparian impacts	In-water or riparian impacts occur

<sup>1</sup> Significant trees should be defined using the local jurisdiction's Critical Areas and/or Urban Forestry code sections. If significant trees are not defined by local code, assume significant trees are those trees 6-inches or greater dbh (diameter breast height).

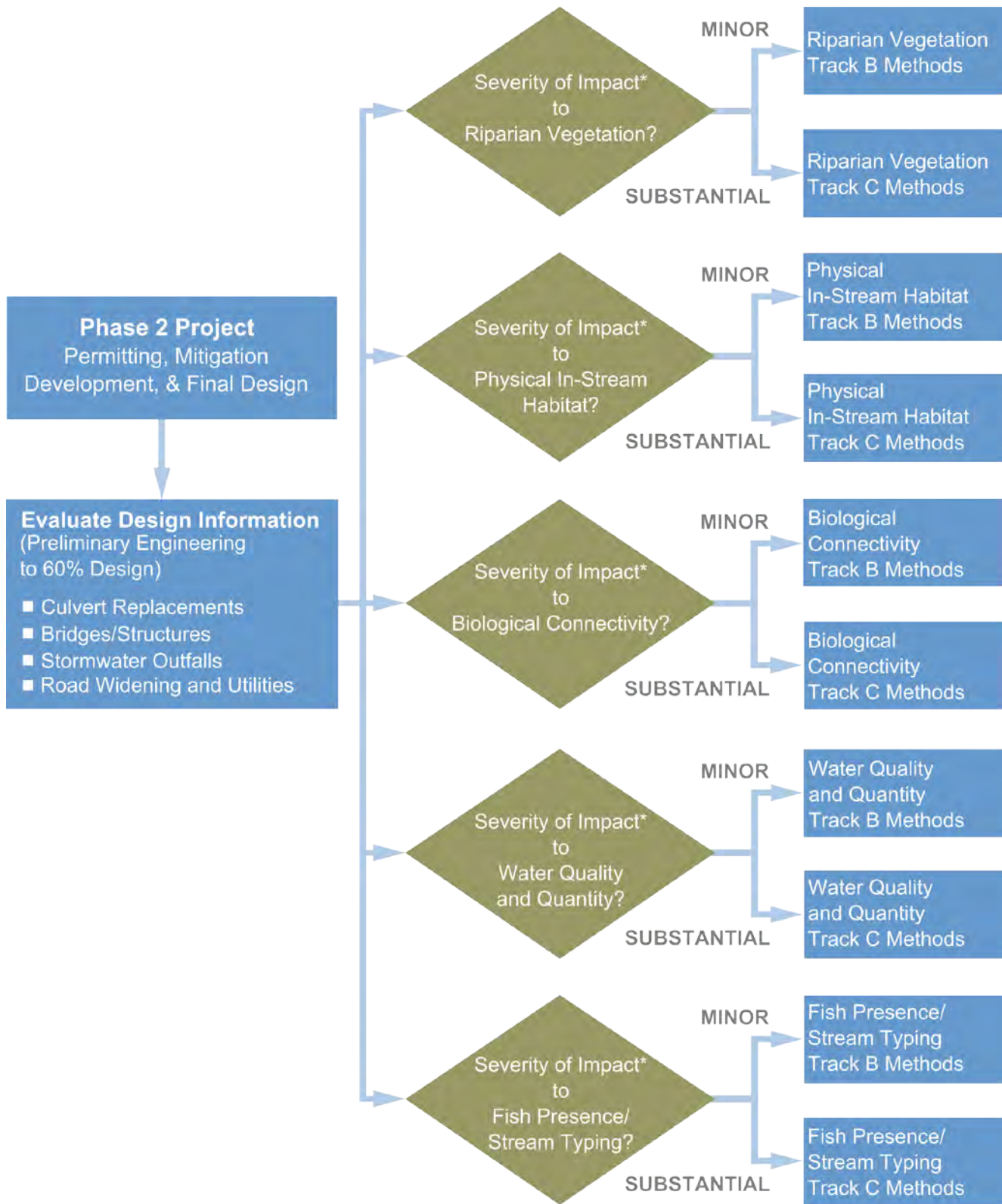
<sup>2</sup> OHWM – ordinary high watermark

<sup>3</sup> LWD – large woody debris

## 2.2 Phase 2 Projects

Figure 2 on page 6 is the stream assessment flowchart for projects in final design. It shows the general process to follow when assessing streams in greater detail for Phase 2 projects that involve stream impacts. For Phase 2 projects, access to all riparian areas is assumed for purposes of conducting field work using either Track B or Track C methods. In the unusual event that access to all parcels is not available during Phase 2, Track A methods should be used to the extent feasible.

Using more detailed project design drawings, the level of data collection for Phase 2 projects will vary depending on the severity of impacts to Key Aquatic Habitat Elements. For each stream impact area, impacts should be classified as either a “Minor Impact” or “Substantial Impact”. Table 2 on page 7 should be utilized to help classify potential Phase 2 project impacts on each Key Aquatic Habitat Element, based on specific project activities and quantification of expected impacts to each habitat element. However, it should be noted that the criteria may be adjusted based on the relative severity of project impacts within each project area. The project study team should coordinate with Sound Transit environmental staff to confirm the impact classification and intended data collection track before initiating data collection, as some or all of the data may already have been gathered by others, or a shift in alignment may occur that negates the need to do more detailed survey.



\*See Table 2 in *Sound Transit Stream Habitat Assessment Guidelines* document to assess level of impact

Figure 2  
Stream Assessment Flowchart for Sound Transit Phase 2 Projects

**Table 2 Impact Classification for Phase 2 Projects Based on Impacts to Key Aquatic Habitats**

Key Aquatic Habitat Element	Impact Classification	
	Minor Impact	Substantial Impact
Riparian Vegetation	Clearing less than 5,000 square feet of riparian vegetation, OR Removing 1 to 5 significant trees <sup>a</sup>	Clearing riparian vegetation in amounts exceeding minor impacts <sup>1</sup>
Physical In-Stream Habitat	In-water work involving bank hardening of <20 linear feet, OR Installing fish habitat features (e.g., LWD <sup>2</sup> or boulders), OR Altering substrate < 100 square feet	In-water work exceeding thresholds for minor impacts, OR stream straightening (meander loss) OR Site will be used as a compensatory mitigation site
Biological Connectivity	Replacing or installing culverts or weirs in non-fish bearing waters	Replacing or installing culverts, fishways, or weirs in fish-bearing waters
Water Quality and Quantity	Adding new stormwater discharges or increasing impervious surface where all stormwater is treated and detained and no 303(d) listed or TMDL <sup>3</sup> reaches	Adding new stormwater discharges or increasing impervious surfaces where discharge to 303(d)/TMDL <sup>3</sup> reach occurs, OR where full treatment and detention does not occur
Fish Presence, Fish Habitat Use, and Stream Typing	Minor impacts to one or more key aquatic habitats listed above	Substantial impacts to physical habitat or riparian vegetation aquatic habitat elements, OR project involves any changes (negative or positive) in fish passage conditions, OR where stream diversions/fish removal activities occur

<sup>1</sup> Significant trees should be defined using the local jurisdiction's Critical Areas and/or Urban Forestry code sections. If significant trees are not defined by local code, assume significant trees are those trees 6-inches or greater dbh (diameter breast height).

<sup>2</sup> LWD – large woody debris

<sup>3</sup> TMDL – total maximum daily load

Depending on the outcomes from using the stream assessment flowchart for Phase2 projects, various levels of data collection (either Track B or Track C) will need to be conducted for each Key Aquatic Habitat Element as appropriate. For information on specific stream habitat assessment methods to use under Track B or Track C, refer to **Section 3 - Data Collection for Key Aquatic Habitat Elements**. Tables 3 and 4 in that section outline pertinent assessment methods for each Key Aquatic Habitat Element, including detailed information on specific analysis metrics and survey methods that may be appropriate under Tracks B and C.

## 3. Data Collection For Key Aquatic Habitat Elements

Once the user has taken their Phase 1 or Phase 2 project through the appropriate flowchart in Section 2, Section 3 should be consulted to obtain more detailed information on specific data sources and stream assessment methodologies. Table 3 summarizes the recommended data to be collected for streams during all stages of project development. This includes background information, which should be collected in all cases, as well as field data collection for Tracks A, B, and C, which will depend on the anticipated level of impact to each Key Aquatic Habitat Element. The information in Table 3 is organized by Key Aquatic Habitat Element. Collection and assessment techniques for each Key Aquatic Habitat Element are described in more detail below. These data needs and assessment procedures have been selected to be generally applicable over the wide range of project types and permitting scenarios encountered by Sound Transit. During project development, the recommendations provided below may need to be adjusted based on project-specific input from regulatory agencies and Tribal entities.

### 3.1 Riparian Vegetation

For detailed information on specific riparian habitat assessment techniques and methods, see the *Oregon Riparian Assessment Framework* (Clarke, 2004) or Winward (2000). A common method for estimating canopy coverage is presented in (Daubenmire, 1959).

#### 3.1.1 Background Information

1) Review existing literature –Reports or data sources that may contain information for reach or sub-basin scale riparian conditions include:

- The Washington State Conservation Commission Limiting Factors Analysis, organized by Water Resource Inventory area ( <http://scc.wa.gov/directory/> or <http://www.eopugetsound.org/articles/water-resource-inventory-areas-puget-sound> )
- Information on rare plants distribution from the Washington Department of Natural Resources Natural Heritage Program Database at: [http://www.dnr.wa.gov/ResearchScience/HowTo/ConservationRestoration/Pages/amp\\_nh\\_data\\_instructions.aspx](http://www.dnr.wa.gov/ResearchScience/HowTo/ConservationRestoration/Pages/amp_nh_data_instructions.aspx)
- Local watershed analysis or stream assessment reports
- Local Shoreline Master Program Inventory reports <http://www.ecy.wa.gov/programs/sea/shorelines/smp/citizen.html>

2) Review aerial photographs and any available site photos.

- Google Earth – also view past riparian conditions using historic photos on site
- Bing Maps – Birds Eye View feature is useful for assessing riparian conditions
- Digital or hardcopy orthophotos

3) Based on the results of steps 1) and 2) above, summarize the following:

- General vegetation type (forested, shrub, herbaceous, none (bare earth/built)),
- Tree canopy type (deciduous, coniferous, or mixed)
- Approximate density of vegetation types (dense or sparse),
- Approximate width of buffer on each streambank at project site (based on aerial photos), and
- Estimated average riparian buffer width upstream and downstream of project site.

**Table 3. Overview of Data Collection Needs For Key Aquatic Habitat Elements**

Key Aquatic Habitat Element <sup>1</sup>	Background Information <sup>2</sup>	Track A <sup>3</sup> – Limited Site Access or No Impact	Track B – Site Access and Minor Impacts	Track C – Site Access and Substantial Impacts OR Site to be Used as Compensatory Mitigation
Riparian Vegetation	<ol style="list-style-type: none"> <li>Review existing literature</li> <li>Review aerial photographs and existing site photos</li> <li>Characterization should include: <ul style="list-style-type: none"> <li>vegetation type (i.e., forested, shrub, herbaceous, built, coniferous, deciduous, genus and species if possible),</li> <li>relative vegetation densities</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Site visit with qualitative description of riparian conditions: <ul style="list-style-type: none"> <li>vegetation type, height, and relative density</li> <li>width/length of riparian zone</li> <li>presence of overhanging or fallen vegetation/stream cover</li> <li>presence of invasive plant species (estimate percent cover if possible )</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Collect qualitative and quantitative field data from riparian zone including: <ul style="list-style-type: none"> <li>approximate height for each vegetation layer</li> <li>approximate tree/shrub densities</li> <li>identify invasive species and observed snags/dead and down trees</li> <li>width, length, and area of functioning riparian zone</li> <li>stream banks vegetation type, height, and density</li> <li>percent vegetation that covers the stream</li> <li>qualitative evaluation of known limiting riparian factors such LWD<sup>3</sup> or shade limitations</li> </ul> </li> </ol>	Collect Track B data, supplemented by tree counts, GPS survey, or professional land survey within forested riparian impact area to include: <ul style="list-style-type: none"> <li>tree species</li> <li>tree diameters</li> <li>estimated tree heights</li> <li>locations of snags/dead and down</li> </ul>
Physical In-Stream Habitat	<ol style="list-style-type: none"> <li>Review existing literature</li> <li>Review aerial photographs, topographic maps and site photos</li> <li>Characterization should include: <ul style="list-style-type: none"> <li>stream width</li> <li>dominant in-stream sediment</li> <li>LWD<sup>4</sup> presence</li> <li>channel morphology</li> <li>streambank condition</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Site visit to qualitatively assess the following through visual observations: <ul style="list-style-type: none"> <li>stream width</li> <li>LWD presence</li> <li>general channel morphology</li> <li>general bank condition</li> <li>dominant stream substrate</li> <li>relative amount of instream cover and refuge</li> </ul> </li> </ol> <p><b>ALSO SEE TABLE 4 FOR MORE DETAILS</b></p>	<ol style="list-style-type: none"> <li>Site visit to quantitatively assess the following conditions within, upstream, and downstream of project site: <ul style="list-style-type: none"> <li>wetted and OHWM<sup>5</sup> stream width</li> <li>LWD size, location, and type</li> <li>channel morphology - pool, riffle, run, glide</li> <li>bank condition - stability/armoring</li> <li>stream substrate - dominant/subdominant and particle distribution</li> </ul> </li> </ol> <p><b>ALSO SEE TABLE 4 FOR MORE DETAILS</b></p>	Same as Track B, but specific habitat impacts or intended use for mitigation may require: <ol style="list-style-type: none"> <li>Track B data collection over a wider area</li> <li>GPS/professional survey of habitat elements delineated in Track B, or</li> <li>detailed quantitative analysis of habitat elements (e.g., bulk substrate analysis, micro-channel morphology)</li> </ol> <p><b>ALSO SEE TABLE 4 FOR MORE DETAILS</b></p>
Biological Connectivity	<ol style="list-style-type: none"> <li>Review existing literature on existing fish passage conditions/barriers and check the WDFW Fish Passage Barrier Map</li> <li>If no barriers are recorded online, Track B/C methods may be required regardless of impact level</li> <li>Review aerial photographs to identify potential barriers at site, upstream, or downstream</li> <li>Review topographic maps and watershed analyses</li> </ol>	<ol style="list-style-type: none"> <li>Site visit to qualitatively assess the following information on man-made fish passage structures: <ul style="list-style-type: none"> <li>type/material of structure</li> <li>approximate size/configuration of structure</li> <li>condition of structure (i.e. wear, damage, etc.)</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Site visit to quantitatively assess man-made structures: <ul style="list-style-type: none"> <li>relative inlet and outlet elevations</li> <li>stream channel bankfull width</li> </ul> </li> <li>If necessary, conduct WDFW Level A Culvert analysis per WDFW (2009) to assess status as fish passage barrier. Check with WDFW prior to conducting the analysis; they may already have that information, particularly if the culvert is on WSDOT right-of-way</li> </ol>	Same as Track B, but in some cases coordination with design team on conducting a WDFW Level B culvert analysis per WDFW (2009) may be necessary to accurately assess barrier status
Water Quality and Quantity	<ol style="list-style-type: none"> <li>Review existing literature/databases for information on: <ul style="list-style-type: none"> <li>water quality/contaminants,</li> <li>stream temperatures,</li> <li>flow data</li> <li>water quality/quantity limiting factors</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Site visit with qualitative description of: <ul style="list-style-type: none"> <li>type/material of outfall/drainage structure</li> <li>approximate size/configuration/condition of outfall/drainage structure</li> <li>visual estimate of streamflow and stream velocity</li> <li>stream temperature</li> <li>presence of septic systems within the project area</li> <li>Water source (stormwater, other?)</li> </ul> </li> </ol>	No additional effort	No additional effort
Fish Presence, Fish Habitat Use, and Stream Typing	<ol style="list-style-type: none"> <li>Review existing literature/databases for information on: <ul style="list-style-type: none"> <li>fish presence and fish habitat use</li> <li>stream typing</li> <li>contributing basin area</li> <li>natural/manmade barriers downstream</li> </ul> </li> </ol>	If result of background information does not provide complete or definitive results, conduct site visit and make preliminary determination based on WAC 222-16-031. Qualitatively assess the following: <ul style="list-style-type: none"> <li>stream width/OHWM,</li> <li>flow conditions,</li> <li>fish observations</li> </ul>	If result of background information does not provide complete or definitive results proceed with one or more of the following options, as appropriate: <ol style="list-style-type: none"> <li>Request government/Tribal fish use/stream typing assistance</li> <li>Utilize a qualified biologist to estimate fish presence/absence based on habitat conditions within, upstream, and downstream of site</li> </ol> Conduct reconnaissance site visit to identify natural downstream barriers	Same as Track B, but in extraordinary circumstances, fish sampling by a qualified biologist may be appropriate <sup>6</sup> . Sampling techniques could potentially include: <ul style="list-style-type: none"> <li>snorkel surveys</li> <li>minnow traps</li> <li>electrofishing</li> </ul>

<sup>1</sup> See text in Section 3 – Data Collection for Key Aquatic Habitat Elements for more specific information on each habitat element

<sup>2</sup> Background information should be compiled regardless of access situation or level of impacts

<sup>3</sup> If lack of access, the information for Track A should be collected in the field from adjacent publicly accessible properties or right of way to the extent possible/practical

<sup>4</sup> LWD – large woody debris

<sup>5</sup> OHWM – ordinary high water mark

<sup>6</sup> If information collected as part of Track A or Track B does not provide the required level of certainty on fish presence and stream typing, and no natural barrier exists downstream, generally assume fish presence and consult with ST environmental staff. These activities will require a Scientific Collection Permit from WDFW, and in accordance with WAC 220-20-045. Electrofishing, per requirements in WAC 220-20-045, should only be used to assess fish presence under extraordinary circumstances where such actions are pre-approved by ST (e.g., this information is tied to a permit condition or the information is crucial for design of a substantial design element such as road or culvert)

### **3.1.2 Track A Information**

After collecting and synthesizing relevant background information on riparian vegetation conditions within the project area, conduct a reconnaissance-level site visit within existing Sound Transit or public right-of-way/easement areas. Provide qualitative description of riparian conditions including the following:

- Note buffer vegetation type – e.g., forested, shrub, herbaceous, none (bare earth/built). Identify shrub and/or tree species if possible, including any observed invasive species.
- Note relative buffer vegetation density (e.g., sparse, moderately dense, dense) and approximate height of each vegetation layer, particularly the tree layer
- Note observable width/length of riparian zone
- Note extent and type of overhanging vegetation and any observed any observed LWD originating in riparian zone. Estimate percent overhead cover in stream thalweg.
- Note and describe extent of vegetation overhanging stream channel, fallen vegetation
- Qualitative evaluation of potential limiting riparian factors such (LWD or shade limitations)

### **3.1.3 Track B Information**

Collect similar information as listed in Track A; however site access will allow for on-site evaluation of the riparian condition based on qualitative and quantitative field data gathered from within the riparian zone.

- Identify shrub or tree species within the riparian zone, including any observed invasive species.
- Estimate or measure canopy cover and ground cover within the riparian zone (Daubenmire, 1959) for dominant species. If measuring, use plots or intercept along a measuring tape.
- Approximate average diameter (diameter breast height – DBH) of trees within riparian zone using representative measurements
- Width and length of functioning riparian zone and
- Riparian interaction with stream banks (e.g., overhanging vegetation, bank stabilization by roots),
- Measure average in-stream riparian cover in the stream thalweg using a densitometer (average riparian cover measured facing upstream, downstream, left bank, and right bank).
- Observations or qualitative evaluation of reach or basin scale limiting riparian factors (such as large-scale LWD or shade limitations).

### **3.1.4 Track C Information**

If the project involves substantial impacts to the riparian corridor, particularly forested riparian areas, it may be necessary to supplement the data collection efforts from above with a more accurate tree survey conducted with GPS survey or professional land survey. Within forested buffer impact areas, detailed survey of the following parameters may be appropriate:

- Tree locations
- Tree species
- Tree diameters
- Estimated tree heights
- Locations of snags and dead/ down woody debris



## 3.2 Physical In-Stream Habitat

There are literally hundreds of formal assessment protocols prepared for the evaluation of stream environments and habitats. Assessment methods to assess physical in-stream habitat for Pacific Northwest streams are also numerous (e.g. Overton et al. 1997, Pleus and Schuett-Hames 1998, Barbour et al. 1999). In addition, several agencies in the region have developed their own protocols that use unique suites of channel features and channel feature definitions. These protocols generally address measurement of the same in-stream habitat parameters (e.g., woody debris, channel morphology, streambank condition) with varying levels of detail. In order to cover the range of data requirements for both Phase 1 and Phase 2 Sound Transit projects, the discussion of field methods (Tracks A, B and C) for an assessment of this Key Aquatic Habitat Element is focused on these in-stream habitat parameters. Table 4 on page 13 details the specific metrics/measurements that may be applicable for each parameter under Tracks A, B, and C, with recommendations for specific methods or protocols, where appropriate. Table 5 summarizes the methodological references noted in Table 4 for various in-stream habitat parameters.

In addition, other authors have compared and contrasted various protocols and assessments from a nation-wide perspective (Somerville, 2010), with a focus on those assessments prepared for application in the Pacific Northwest region (Johnson et al., 2001; Stolnack et al. 2005). These review documents are excellent sources to consult prior to undertaking a detailed physical habitat assessment, especially in cases where the assessment is focused on specific in-stream habitat parameters.

### 3.2.1 Background Information

- 1) Review existing literature on physical in-stream habitat conditions, including stream size (width), presence of LWD and complex habitat features, approximate stream gradient/channel morphology, stream substrate and sediment condition, and bank condition. Reports that may contain information reach or sub-basin scale physical conditions include:
  - The Washington State Conservation Commission Limiting Factors Analysis, organized by Water Resource Inventory area ( <http://scc.wa.gov/directory/> or <http://www.eopugetsound.org/articles/water-resource-inventory-areas-puget-sound> )
  - Salmon recovery plans – Puget Sound: [http://www.psp.wa.gov/SR\\_map.php](http://www.psp.wa.gov/SR_map.php) King County: <http://www.kingcounty.gov/environment/animalsAndPlants/salmon-and-trout.aspx>
  - Shoreline Master Program Inventory reports for local jurisdictions <http://www.ecy.wa.gov/programs/sea/shorelines/smp/citizen.html>
  - Williams et al. (1975)
  - Local watershed analysis or stream assessment reports
  
- 2) Review aerial photographs, topographic maps, and any available site photos.
  - Google Earth – also view past stream habitat conditions using historic photos on site
  - Bing Maps – Birds Eye View feature is useful for assessing some in-stream conditions
  - Digital or hardcopy orthophotos
  - Topographic maps (LIDAR data if available) to determine stream gradients. LIDAR data can be obtained from the Puget Sound LIDAR Consortium at <http://pugetsoundlidar.ess.washington.edu/>

- 3) Use the results of 1) and 2) above to describe the following in-stream habitat conditions at the site/stream reach to the extent feasible:
- general horizontal and vertical channel form (stream gradient and channel morphology) including the presence and quality of pools and riffles and channel confinement/entrenchment
  - dominant in-stream substrates (cobble, gravel, fines, etc.) and general sediment transport dynamics (source, transport, or response reach),
  - presence/absence of LWD, or frequency of LWD (if available),
  - streambanks condition, including bank stability and presence of bank hardening/revetments

### **3.2.2 Track A Information**

After collecting and synthesizing relevant background information on in-stream physical habitat conditions within the project area, conduct a site visit within existing Sound Transit or public right-of-way/easement areas. Provide qualitative descriptions, based on visual observations, of on-site in-stream habitat conditions as detailed in Table 4 on the following page. The primary Channel Geomorphological Units (CGU) used for the assessment will likely be limited to fast/slow habitat types, as the evaluation will be based on visual observations only.

### **3.2.3 Track B Information**

Collect similar information as listed in Track A; however site access will allow for better evaluation of in-stream physical habitat conditions, based on qualitative and quantitative field data gathered from within the stream. Information on specific recommended measurements, including appropriate references, is presented in Table 4. The primary Channel Geomorphological Units (CGU) used for the assessment will likely include a moderate detail (pools, riffles, and runs/glides at a minimum). Pools may be further classified into the type of pool (e.g., lateral scour, medial scour, boulder-formed pocket pool).

### **3.2.4 Track C Information**

If the project involves substantial impacts to in-stream habitat, particularly impacts to the stream bed, stream banks, or local hydraulics, or if the site is to be used for compensatory mitigation, it may be necessary to supplement the data collection efforts from above with more detailed measurements as listed in Table 4.

**Table 4. Specific Metrics for Assessment of Physical In-Stream Habitat Parameters**

Parameter	Metric/Measurement	Track A – Limited Site Access and Low Impact	Track B – Site Access and Moderate Impacts	Track C– Site Access and Substantial Impacts OR Site to be Used as Compensatory Mitigation
Channel Form and Profile	Macrohabitat - habitat type	Visual characterization of Channel Geomorphological Units (CGUs) into slow/fast water habitats.	Classify and measure macrohabitat unit length using classification including pools, riffles, runs, and/or glides. Depending on specific impacts, additional detail may be appropriate (Arend 1999).	Same as Track B. If substantial alteration of stream hydraulics, may be useful to classify and measure CGUs using detailed classification system (Arend 1999).
	Macrohabitat - pool characteristics	Visual observation of water depths of slow/fast water habitat approximate depth.	Measure maximum pool depths and residual pool depths. Classifying pools based on minimum functional pool width/depth (Pleus et al., 1999).	Same as Track B
	Stream Reach Classification	N/A	N/A	If substantial alteration of stream hydraulics, may be useful to use existing geomorphic classification system to classify project reach - Montgomery and Buffington (1998).
	Stream Slope	Estimate stream slope using topographic maps or LIDAR data if available.	Measure using clinometer or auto-level.	Same as Track B. If substantial alteration of stream hydraulics, may be useful to conduct longitudinal profile study.
	Stream Patterns	Visual observation of channel patterns (e.g., sinuous versus straight channel).	Visual observation of channel patterns (e.g., sinuous versus straight channel).	Same as Track B. If substantial alteration of stream hydraulics, may be useful to measure meander length, radius of curvature, sinuosity, and meander belt width.
	Confinement	Visual assessment of channel confinement and entrenchment.	Measure channel confinement/entrenchment. The entrenchment ratio is the ratio of the width of the flood-prone area to the surface width of the bankfull channel. The flood-prone area width is measured at the elevation that corresponds to twice the maximum depth of the bankfull channel.	Same as Track B. If substantial alteration of stream hydraulics, may be useful to survey complete stream cross-section.
	Channel Dimension/Shape	Visual estimation of bankfull width.	Measure average bankfull width and depth in project area.	Same as Track B. If substantial alteration of stream hydraulics, may be useful to survey complete stream cross-section.
Streambank Condition	Stability	Visual observation of nature and extent of unstable banks.	Measure extent of and location of unstable banks with type of instability (slide, slump, slough, etc.).	Same as Track B. If substantial specific impact to this habitat element or the element is crucial to a key design feature, may be useful to use GPS or PLS to survey location of features.
	Bank Hardening/Revetments	Visual observation of nature and extent of bank hardening/revetments.	Measure extent and location of bank hardening/revetments with type of hardening (riprap, earthen, structural, etc.).	Same as Track B. If substantial specific impact to this habitat element or the element is crucial to a key design feature, may be useful to use GPS or PLS to survey location of features.
Substrate/Sediment	Particle Frequency	Visual estimate of dominant and subdominant substrate over project area.	Visually estimate dominant and subdominant substrate within each CGU. Supplement data with pebble counts at representative pool tail outs (Bunte and Abt 2001).	Same as Track B. If substantial alteration of stream hydraulics, may be useful to use grid surface sampling or sub-surface volumetric sampling (Bunte and Abt 2001).
	Percentage of Fine Sediments/Embeddedness	Visual estimate of amount of surface fines in pools.	Visually estimate percentage of surface fines in each pool CGU. Estimate substrate embeddedness in riffles and pools.	Same as Track B. If substantial alteration of stream hydraulics, may be useful to use grid surface sampling or sub-surface volumetric sampling (Bunte and Abt 2001).
Large Woody Debris	LWD Presence, Frequency, and Location	Visual count of observed pieces of woody debris (>6 feet in length and 0.5 feet in diameter).	Measure location and presence of each piece of LWD (>6 feet in length and 0.5 feet in diameter) and debris jams. Relative position of LWD (thalweg center, thalweg edge, bankfull, bankfull edge).	Same as Track B. If substantial alteration of stream hydraulics or LWD composition, may be useful to measure additional parameters, including mapping/GPS of LWD orientation.
	Debris Jams	Visual observations of presence/absence of LWD jams, including approximate location and size of jam.	Measure location and orientation of each LWD jam, including number of pieces of debris in jam.	Same as Track B. If substantial specific impact to this habitat element or the element is crucial to a key design feature, may be useful to use GPS or PLS to survey location of features.
	LWD Size	Visual estimate of LWD size (length and width).	Measure LWD size (length and width) for each piece of LWD.	Same as Track B. If substantial specific impact to this habitat element or the element is crucial to a key design feature, may be useful to use GPS or PLS to survey location of features.
	Age and Type	Visual estimate of LWD age and composition (deciduous or coniferous).	Measure LWD species (coniferous, deciduous, or unknown) and LWD age class (Shuett-Hames et al., 1999a).	Same as Track B. If substantial specific impact to this habitat element or the element is crucial to a key design feature, may be useful to use GPS or PLS to survey location of features.
Cover and Refuge	Pool quality	Visual observation of relative pool size, location, depth, and cover.	Assess pool quality using a Pool Quality Index (Platts et al. 1983).	Same as Track B
	Undercut banks	Visual observations of presence/absence of undercut banks.	Measure location and presence of undercut banks.	Same as Track B. If substantial specific impact to this habitat element or the element is crucial to a key design feature, may be useful to use GPS or PLS to survey location of features.
	Off-channel/side-channel habitat	Visual observations of presence/absence of off-channel/side-channel habitat, including associated wetlands. Indicate presence of beaver dams or beaver activity within project area.	Include side-channel habitat in channel form and profile, LWD, streambank condition, and sediment measurements. Measure location, area, and water depth of off-channel areas. Record features of beaver dams and associated habitat.	Same as Track B. If substantial specific impact to this habitat element or the element is crucial to a key design feature, may be useful to use GPS or PLS to survey location of features.
	In-stream cover/protection	Visual observation of aquatic macrophytes, habitat boulders, and other in-stream structures providing cover.	Measure location and presence of aquatic macrophytes, habitat boulders, and other in-stream structures providing cover.	Same as Track B

Table 5 below summarizes the methodologies Sound Transit recommends for assessing in-stream habitat parameters.

**Table 5. Methodological References for Physical In-Stream Habitat Parameters**

Metric/Measurement	Methodology Reference
<b>Habitat Unit Classification and Measurement</b>	Arend, K.K. 1999. Macrohabitat Identification. Pages 75-93 in M.B. Bain and N.J. Stevenson, editors. Aquatic habitat assessment; common methods. American Fisheries Society. Bethesda, Maryland.
<b>Pool Characteristics</b> <ul style="list-style-type: none"> <li>• measurement of maximum pool depths and residual pool depths</li> <li>• classification of pools based on minimum functional pool width/depth</li> </ul>	Pleus, A. E., D. Shuett-Hames, and L. Bullchild. 1999. TFW Monitoring Program method manual for the habitat unit survey. Prepared for the WA State Dept. of Natural Resources under the Timber, Fish, and Wildlife Agreement. TFW-AM9-99-003. DNR #105. June. 31 pp.
<b>Stream Reach Classification</b>	Montgomery DR, Buffington JM. 1998. Channel Processes, Classification and Response. In Naiman, R. and Bilby, R. (Eds) River Ecology and Management: Lessons from the Pacific Coastal Ecoregion, New York, NY: Springer-Verlag.
<b>Sediment Characteristics</b> <ul style="list-style-type: none"> <li>• Particle Frequency</li> <li>• Percentage of Fine Sediments/Embeddedness</li> </ul>	Bunte, K. and Abt. S.R. 2001. Sampling surface and subsurface particle size distributions in wadeable gravel and cobble bed streams for analyses in sediment transport, hydraulics and streambed monitoring. General Technical Report RMRS-GRT-74. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 428 pp.
<b>Large Woody Debris</b> <ul style="list-style-type: none"> <li>• LWD Presence, Frequency, and Location</li> <li>• Location, orientation, and number of pieces in each LWD jam</li> <li>• LWD size (length and diameter)</li> <li>• LWD species and age class</li> </ul>	Shuett-Hames, D., A. E. Pleus, J. Ward, M. Fox, and J. Light. 1999a. TFW Monitoring Program method manual for the large woody debris survey. Prepared for the Washington State Dept. of Natural Resources under the Timber, Fish, and Wildlife Agreement. TFW-AM9-99-004. DNR #106. March. 33 pp.
<b>Pool Quality Index</b>	Platts, W. S., W. F. Megahan, and G. W Minshall. 1983. Methods for evaluating stream, riparian, and biotic conditions. Gen. Tech. Rep. INT-138. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station. 70 p. <a href="http://www.fs.fed.us/rm/pubs_int/int_gtr138.pdf">http://www.fs.fed.us/rm/pubs_int/int_gtr138.pdf</a>

### 3.3 Biological Connectivity

An analysis of biological connectivity and associated fish passage conditions may be a key element of Sound Transit projects, particularly for the creation, reconstruction, or removal of stream crossings (roads or bridges). Fish passage structures are regulated under the Washington State Hydraulic Code (WAC 220-110-170). Therefore, where such actions may occur, it is important to have early coordination with the project design team to determine and coordinate on overall project design and permitting needs.

Any definitive evaluation of fish passage conditions should be conducted using the *Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual* (WDFW, 2009). Likewise, design of stream crossings should utilize the standards and procedures in the *WDFW Water Crossing Design Guidelines* document (Barnard, et al. 2013).

### **3.3.1 Background Information**

Review existing literature on biological connectivity and fish passage conditions, including the presence of any known or potential man-made or natural barriers to fish passage, including type, size, and location of such features. Data sources that may contain information reach or sub-basin scale biological connectivity and fish passage conditions include:

- WDFW Fish Passage Program: Data and Maps  
[http://wdfw.wa.gov/conservation/habitat/fish\\_passage/data\\_maps.html](http://wdfw.wa.gov/conservation/habitat/fish_passage/data_maps.html)
- WSDOT Fish Passage Reports  
<http://www.wsdot.wa.gov/environment/biology/fp/fishpassage.htm#reports>
- Topographic maps of stream for assessment of steep downstream reach gradients /natural barriers
- Local watershed analysis or stream assessment reports

### **3.3.2 Track A Information**

After collecting and synthesizing relevant background information on biological connectivity habitat conditions within the project area, conduct a site visit within existing Sound Transit or public right-of-way/easement areas. Provide qualitative descriptions, based on visual observations, of biological connectivity habitat and fish passage conditions, including the following:

- Location and approximate dimensions of structures including length, width, and height
- Type of structures – Culvert, bridge, fishway, weir structure, etc.
- Material of structures - Concrete, stone/rip-rap, aluminum, PVC, etc. Note presence of culvert corrugation and liners
- Approximate size/configuration of structures – For culverts note type of structure (round, box, bottomless box, squash, arch, elliptical, etc.) and whether structure is countersunk
- Approximate condition of structure – Note any deterioration or damage to structure
- Presence of natural streambed material within culvert and estimate of percent of culvert opening affected by sedimentation
- Presence and relative extent of any backwater at culvert inlet
- Presence and height of any perch at culvert outlet
- Presence of any plunge pool at culvert outlet and estimated depth of pool

### **3.3.3 Track B Information**

Collect similar information as listed in Track A, however site access will allow for better evaluation of connectivity and fish passage condition based on qualitative and quantitative field data gathered from within the stream. The use of the Level A Methodology and Field Form from WDFW (2009) is highly recommended for assessment purposes as it will ensure all essential information is captured. In addition to information collected in the Track A analysis on culvert shape, the following data should be recorded per WDFW (2009):

- Measure relative inlet and outlet elevations (preferable) or measured slope of culvert
- Measure culvert dimensions
- Measure stream channel width (bankfull width)
- Measure water surface drop at outfall
- Measure maximum plunge pool depth

### **3.3.4 Track C Information**

If the project involves substantial impacts fish passage structures, particularly the alteration of an existing potential barrier and the Level A Analysis (WDFW, 2009) is not conclusive on barrier status (Level A does not provide conclusive barrier status in all cases), it may be necessary to coordinate with the design team to determine if a Level B analysis is required. This analysis is usually completed by a hydrologist, geomorphologist, or engineer and requires measurement of additional upstream and downstream parameters including channel width, depth, slope, and characterization of bed material. For specific methods, data requirements, and analysis tools, see WDFW (2009).

## **3.4 Water Quality and Quantity**

### **3.4.1 Background Information**

Review existing literature on water quality and flow conditions, including known impairments of water quality and temperature, and stream flow characteristics. Include any information on impairments or limiting factors from the literature or databases. Data sources that may contain information reach or sub-basin scale water quality and flow conditions include:

- Washington Streamflow Data - USGS  
Historic data = <http://wa.water.usgs.gov/data/realtime/adr/interactive/>  
Realtime data= <http://waterdata.usgs.gov/wa/nwis/current?type=flow>
- 303(d) list - Washington State Department of Ecology <http://www.ecy.wa.gov/programs/wq/303d/>
- King County Hydrologic Information Center  
<http://green.kingcounty.gov/WLR/Waterres/hydrology/default.aspx>
- Streams Water Quality Monitoring Data  
<http://green.kingcounty.gov/WLR/Waterres/StreamsData/StreamList.aspx>
- Local watershed analysis or stream assessment reports

### **3.4.2 Track A Information**

After collecting and synthesizing relevant background information on water quality and quantity conditions within the project area, conduct a site visit within existing Sound Transit or public right-of-way/easement areas. Provide qualitative description of water quality and flow conditions including the following:

- Note any drainage outfalls, including type/size/location of structure, possible source and volume of outflow during time of site visit.
- Visually estimate streamflow (in cubic feet per second) and stream velocity (feet/second).

### **3.4.3 Track B and C Information**

In almost all cases, the information gathered during the Background Information and Track A investigations will be sufficient to effectively characterize water quality and flow. However, in certain rare circumstances, additional site-specific water quality and flow measurements may be appropriate. As these circumstances are rare, and any such measurements should be tailored to specific project requirements (e.g., permit conditions), such additional measurements are not discussed in this document.

### 3.5 Fish Presence, Fish Habitat Use, and Stream Typing

There is a difference between fish presence and fish habitat use, and just because fish may not be present at a given time of the year does not mean that a particular stream or stream habitat is not used by fish. Fish presence may respond to seasonal use of a given stream or habitat type as well as a particular life stage of a given fish species. For these reasons, the general best approach is to assume fish habitat use wherever suitable fish habitat exists, and consult with Sound Transit environmental staff before collecting additional data on fish presence.

The determinations of fish habitat use, and the related element of stream typing, are key in determining the potential severity of project impacts, the width of regulated stream buffers, and the requirements for ensuring fish passage at crossing structures. Although for rivers and larger streams, extensive information exists on fish habitat use and stream type, this information is often times lacking for smaller first and second order tributary streams. The following methods utilize an extensive search of background information coupled with measurements of a stream's physical characteristics to evaluate the potential for fish habitat use based on the presence of suitable fish habitat.

#### 3.5.1 Background Information

Review existing literature on fish habitat use and stream typing conditions, including any documented presence of fish species potentially or known to be present. It should also include documented or potentially present suitable fish habitat within the project area. Include any existing stream typing information from the literature or databases. Data sources that may contain information reach or sub-basin scale biological connectivity and fish passage conditions include:

- WDFW Priority Habitats and Species Online Mapper  
<http://apps2.dfw.wa.gov/prodphsontheweb/viewer.aspx?auth=dchBC3QPoGho84hRndFNAYiX2awipVxGmK5mj/T0HbP429kXX73bzQ==>
- WDFW SalmonScape Database <http://apps.wdfw.wa.gov/salmonscape/>
- DNR Water Typing Online Mapper  
[http://www.dnr.wa.gov/businesspermits/topics/forestpracticesapplications/pages/fp\\_watertyping.aspx](http://www.dnr.wa.gov/businesspermits/topics/forestpracticesapplications/pages/fp_watertyping.aspx)
- The Washington State Conservation Commission Limiting Factors Analysis, organized by Water Resource Inventory area ( <http://scc.wa.gov/directory/> or <http://www.eopugetsound.org/articles/water-resource-inventory-areas-puget-sound> )
- Wild Fish Conservancy Water Type Assessments and Interactive Maps  
<http://wildfishconservancy.org/resources/maps>
- Fish distribution in WRIA 8: <http://www.govlink.org/watersheds/8/reports/fish-maps/default.aspx>
- A Catalog of Washington Streams and Salmon Utilization (Williams et al., 1975)
- Local jurisdiction Critical/Sensitive Area maps
- Local watershed analysis or stream assessment reports

#### 3.5.2 Track A Information

After collecting and synthesizing relevant background information on fish habitat use and stream typing within the project area, conduct a site visit within existing Sound Transit or public right-of-way/easement areas. Visually observe for the presence of fish. If the background information or visual observation does not clearly indicate fish use status of a particular stream, it may be difficult to determine fish use and therefore stream typing)

at a site based upon the direct observation of salmonids. Due to poor visibility, low escapement levels, the existence of human-made barriers, or other factors, fish may not be observed during the field visit.

The Forest Practices Rule (WAC 222-16-031) is used to define water types. Based on the WAC, there are a number of methods to determine if a site has the potential to provide fish habitat. Satisfaction of one or more of the following criteria qualifies a water body as fish bearing or potential fish habitat:

- Watercourses shown by DNR as containing fish on DNR stream typing maps, the WDFW Priority Habitats and Species database, or the WDFW SalmonScape database.
- Watercourses with documented salmonid use determined by visual observation, electrofishing, or verification by local biologists.
- Estimate scour line width. Watercourses having average scour line widths (bankfull widths) in excess of 0.6 meters (2 feet) in Western Washington, provided the stream gradient is less than 20 percent.

Note that seasonally dry streams (ephemeral or intermittent) can provide fish habitat during periods of flow. When evaluating dry stream channels, consider the physical characteristics of the channel and proximity to known fish-bearing water. Also, consider the timing of fish presence for species in the area that may enter the habitat when flow is present. For example, chum salmon often use streams that may only flow for a few months out of the year; they will spawn in the channel during the fall when flow is present and fry will out-migrate in the spring immediately after emergence. In another example, off-channel rearing habitat and floodplain habitat may be used by juvenile salmonids during winter months, even though the channel is dry during the summer.

### **3.5.3 Track B Information**

Better site access will allow for a more comprehensive analysis of evaluation of bankfull width, and greater opportunity to visually observe for fish presence. However, increased site access will not necessarily provide definitive results. If the result of background information and Track A does not provide complete or definitive results, the following options may be considered, as appropriate:

- Request fish use/stream typing assistance from WDFW, Tribal entities, or local government agencies. Assistance may consist of local knowledge of fish distribution or technical assistance with fish presence studies.
- Utilize a qualified fisheries biologist to estimate fish habitat use based on habitat conditions, within, upstream, and downstream of site, noting that absence of fish during a site investigation does not by itself confirm perennial absence.
- If background information indicates a potentially natural downstream fish barrier, conduct downstream reconnaissance to locate and assess natural barrier. Note that lack of fish access for anadromous species does not indicate absence of resident fish species (e.g., resident cutthroat trout or sculpin).
- Watercourses with documented salmonid use determined by visual observation, electrofishing, or verification by local biologists.



### 3.5.4 Track C Information

In extraordinary circumstances (e.g., this information is tied to a permit condition or the information is crucial for design of a substantial design element such as road or culvert), electrofishing, per the requirements in WAC 220-20-045 can be used to establish fish presence and stream typing. This pathway should only be used under careful consideration and in consultation with WDFW. Electrofishing, or other fish sampling methods, should be pre-approved by Sound Transit environmental staff and conducted by experienced fisheries biologists.

## 4. Considerations and Limitations

The purpose of this report, including associated flowcharts and tables, is to serve as a guide for assessing streams that are potentially affected by Sound Transit projects. Due to variation in the specific type and severity of project impacts, coupled with property access issues and the unique requirements of multiple regulatory agencies that are commonly involved, it is difficult to craft a “one size fits all” survey protocol. This difficulty is illustrated by an analysis of the stream assessment methods used by two large governmental agencies involved in transportation projects: the Washington State Department of Transportation and the King County Road Services Division. Neither of these agencies has specific stream assessment protocols for determining project impacts. This is also common for most local governments, as a sufficiently broad, detailed, and inclusive stream assessment survey protocol to cover all available project permitting and design needs would be inherently detailed. This in turn can lead to the potential collection of a substantial amount of information, extraneous to the needs of the project, resulting in an increase in project effort and expense.

Therefore, one should consider some project-specific elements prior to assessing streams. This will allow the user to specifically tailor the stream assessment methods in order to both “right size” the analysis methods and to ensure that information is collected in an efficient way that anticipates current and future information needs. These elements can be assessed by asking and answering the following project-specific questions:

- **Which specific habitat elements and sub-elements will be affected (e.g., in-stream substrate, stream banks, riparian zone width, etc.)?** Think carefully about the specific project impacts or mitigation needs and the information that should be collected to compare or assess these impacts or evaluate appropriate mitigation.
- **What project stage or stages is data from the stream assessment to be used -- programmatic planning, alternative comparison, initial permitting, project design, or mitigation design?** The stream assessment should be tailored to a level of detail that addressed the current project planning, design, or permitting phase and that will support the related documents and plans.
- **If the general purpose of the stream assessment is to help compare project options, is this comparison for programmatic options, many specific design alternatives, a small number of design alternatives, or is the purpose to compare a single alternative with a no-build option?** Based on the specific answer, the stream assessment should be tailored to allow for adequate analysis of impacts, without collecting extraneous information. Conversely, if only one site/alignment is being evaluated and access is not limited, collecting more detailed information early on may be beneficial in the long-term, especially if mitigation is necessary.

- **If the purpose of the stream assessment is to compare among a limited number of specific design options, do the alternatives impact stream habitats in similar manners and locations?** If impacts to streams from most or all of the alternatives will occur in the same geographic area(s), more robust initial stream assessment methods may be appropriate in order to minimize multiple assessments during the project lifecycle, thereby maximizing efficiency and limiting costs.
- **What is the project timeframe for alternative comparison, design, and permitting?** Expedited timeframes may require a more robust initial stream assessment method, in order to quickly advance design and permitting, or to avoid the risk of unexpected delay at a late stage of the project.
- **Are other project staff collecting similar or ancillary field data on stream conditions?** It is important to coordinate with other project staff on their data acquisition needs prior to selecting final assessment methods. For example, structural or civil engineers may be performing detailed hydraulic or hydrological analyses within the same stream reaches, and potentially eliminating the need for some channel morphology or sediment data collection during the stream assessment.

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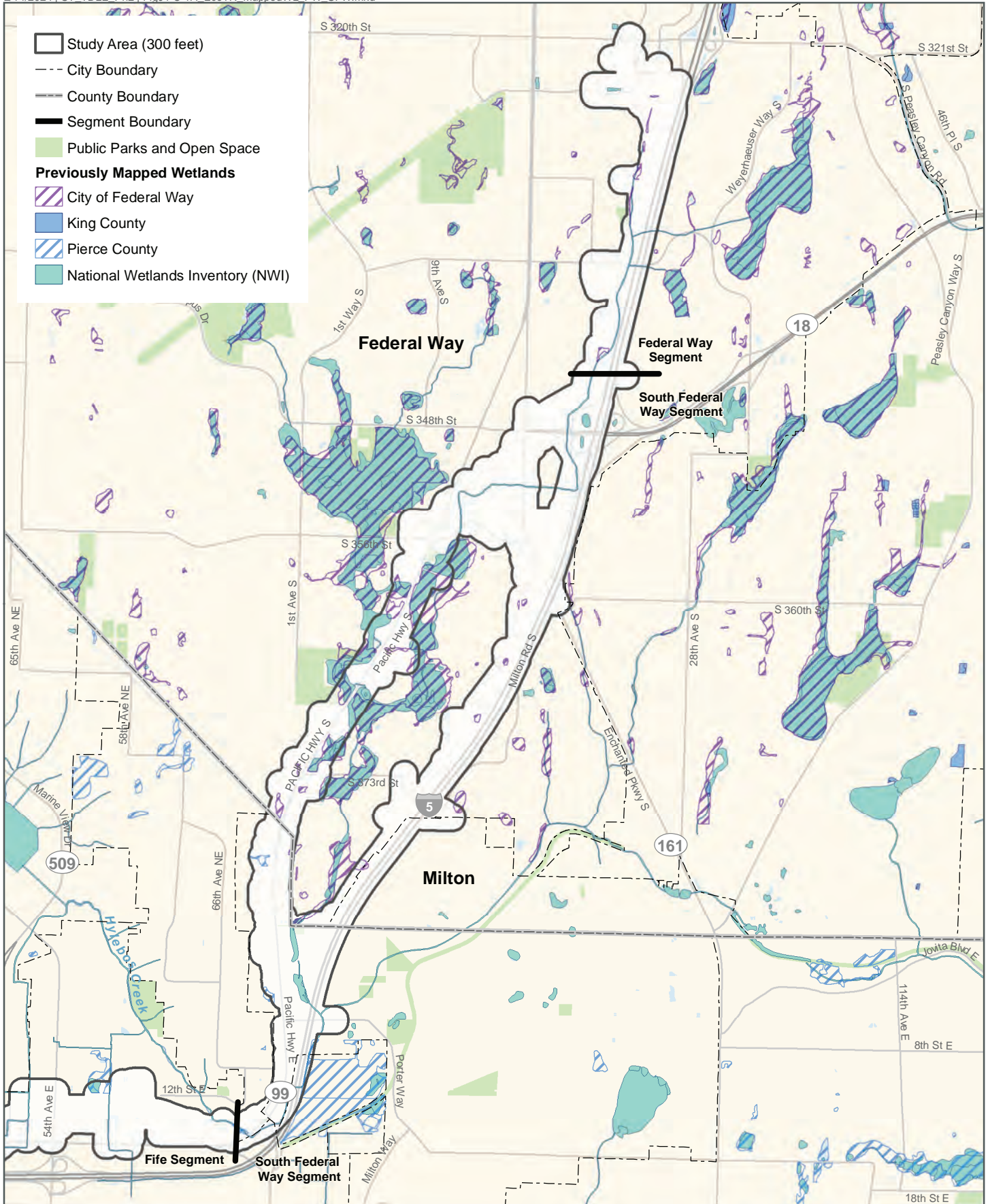
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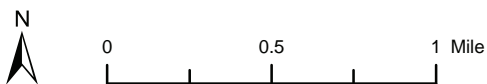
## ATTACHMENT C

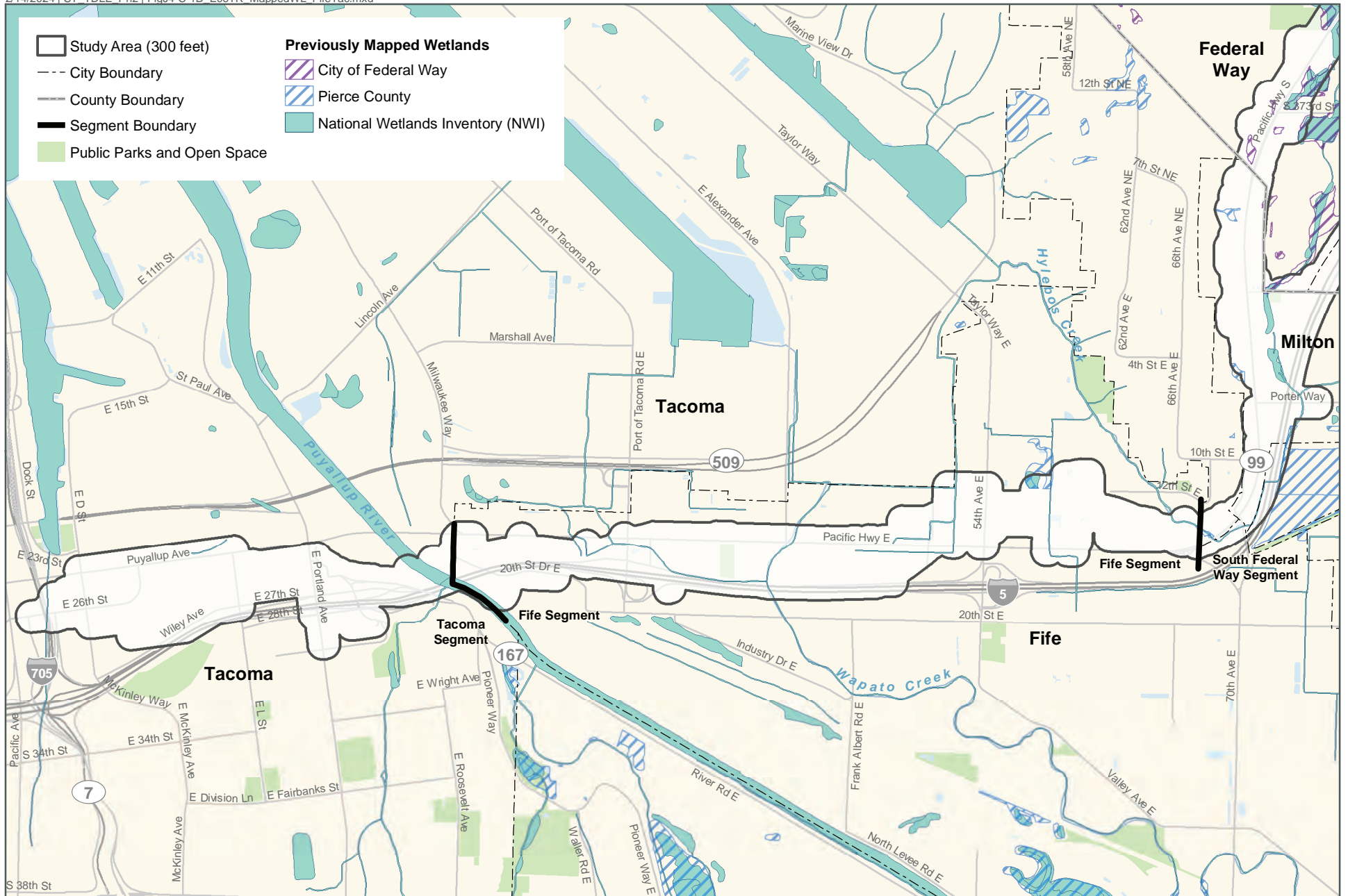
### **Wetland and Stream Background Research Information**



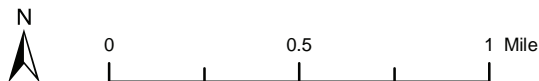
Data Sources: King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023); USFWS NWLI.

**FIGURE J4.C-1A**  
 Previously Mapped Wetlands  
 Federal Way and South Federal Way Segments  
 Tacoma Dome Link Extension

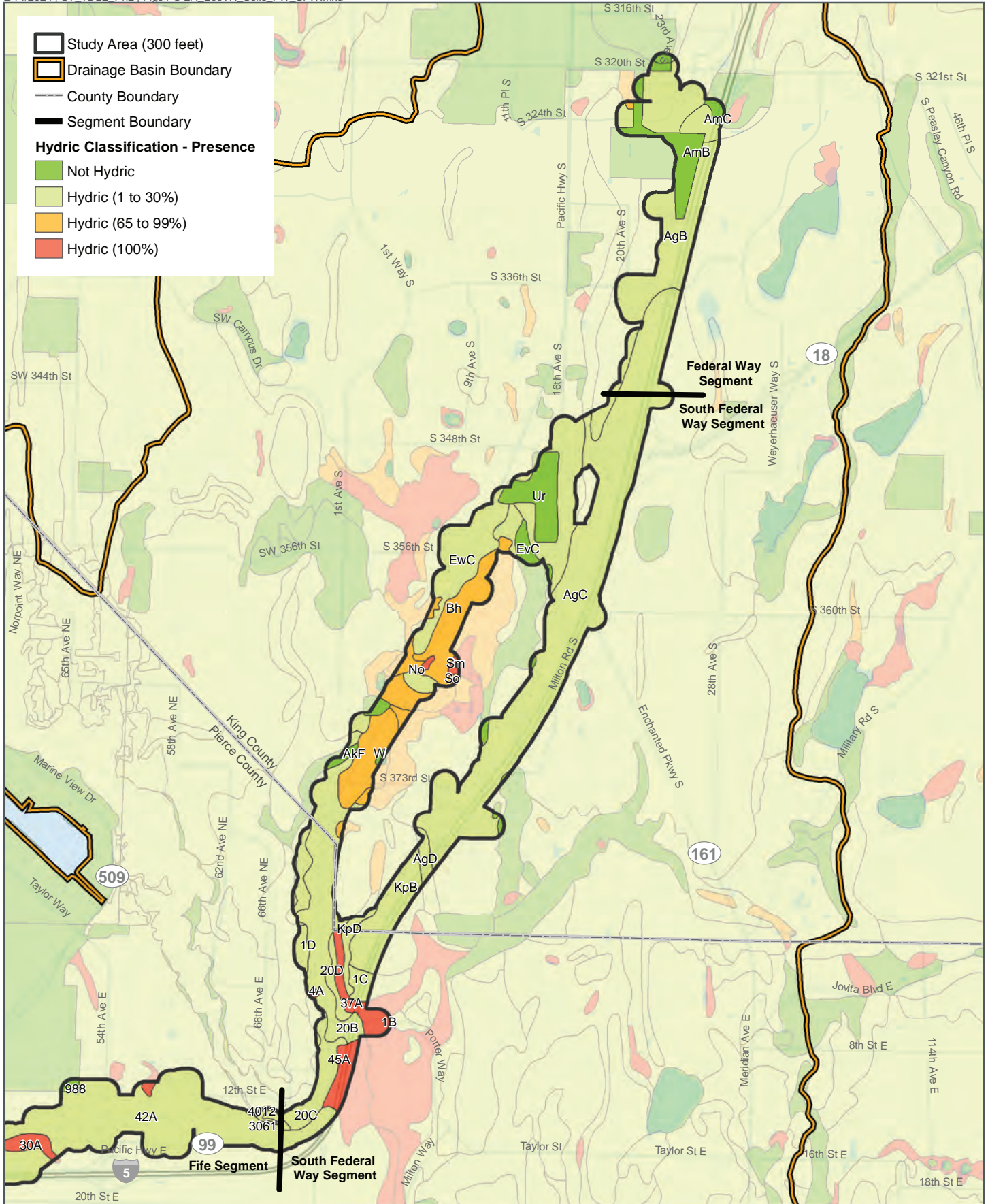




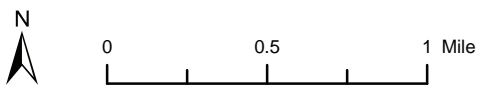
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**FIGURE J4.C-1B**  
 Previously Mapped Wetlands  
 Fife and Tacoma Segments  
 Tacoma Dome Link Extension

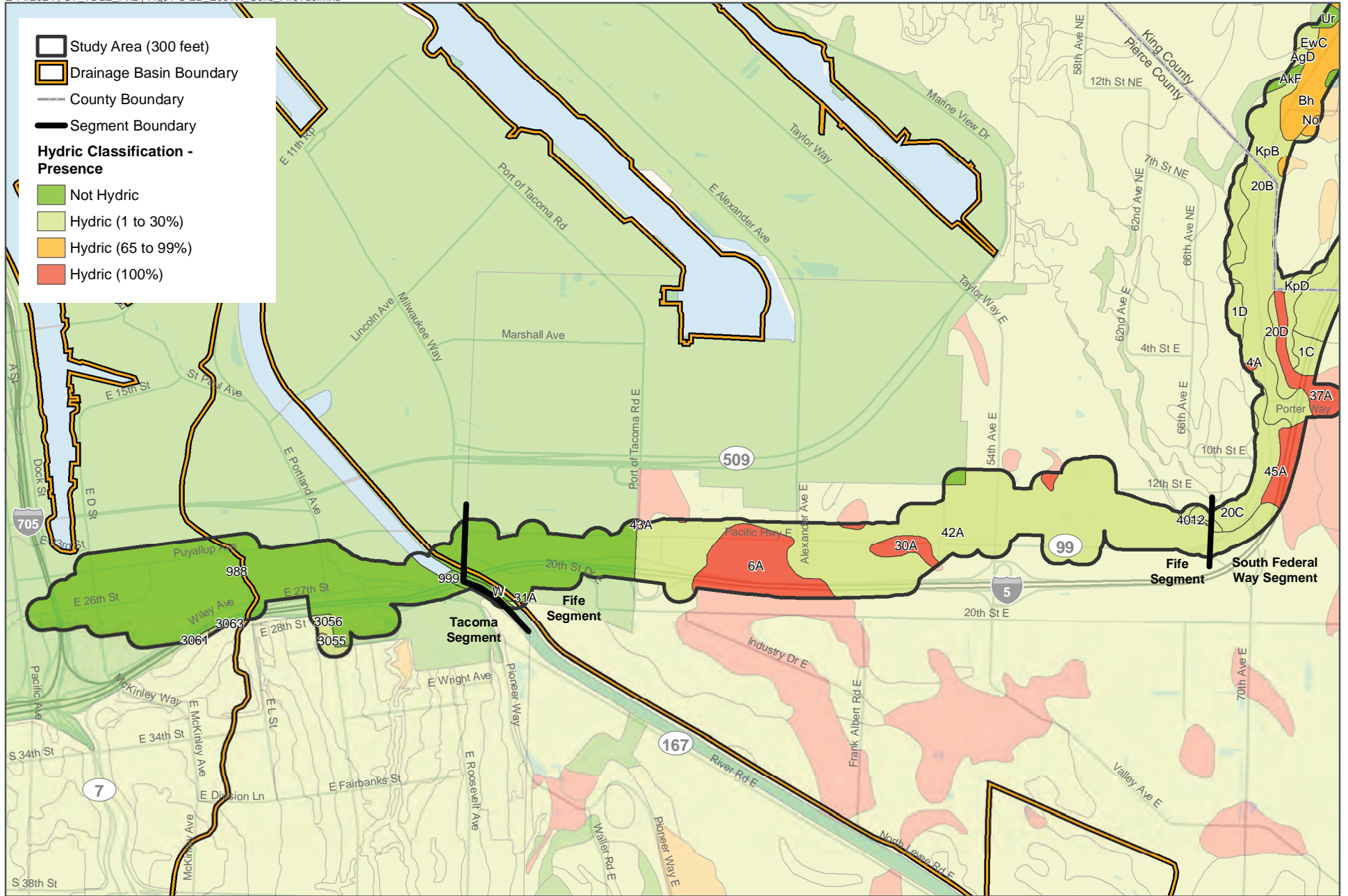


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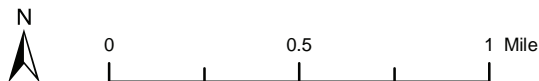


**FIGURE J4.C-2A**  
 Study Area Soils Map  
 Federal Way and South Federal Way Segment  
 Tacoma Dome Link Extension





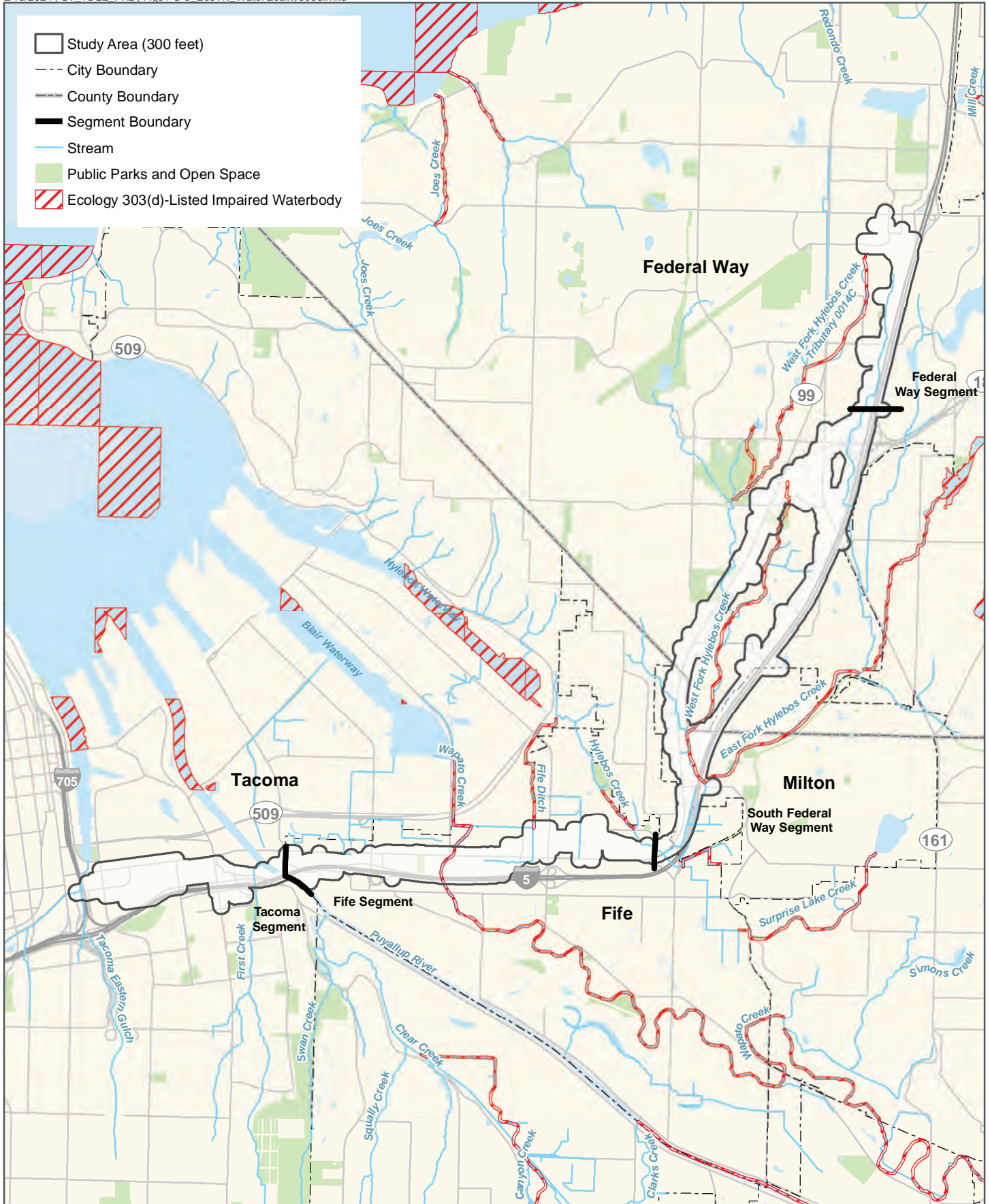
Data Sources: King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023); NRCS (2023).



**FIGURE J4.C-2B**  
 Study Area Soils Map  
 Fife and Tacoma Segments  
 Tacoma Dome Link Extension

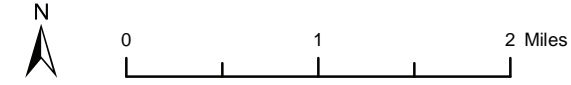
**Table J4.C-1 Study Area Soils (as shown on Figures J4.C-2A and J4.C-2B)**

Map Code	Soil Description
988	Urban land, 0 to 5 percent slopes
999	Water, fresh
3055	Urban land-Alderwood complex, 0 to 5 percent slopes
3056	Urban land-Alderwood complex, 5 to 12 percent slopes
3061	Alderwood-Everett complex, 0 to 12 percent slopes
3063	Alderwood-Everett complex, 35 to 60 percent slopes
4012	Alderwood-Kitsap complex, 12 to 60 percent slopes
1B	Alderwood gravelly sandy loam, 0 to 8 percent slopes
1D	Alderwood gravelly sandy loam, 15 to 30 percent slopes
20B	Kitsap silt loam, 2 to 8 percent slopes
20C	Kitsap silt loam, 8 to 15 percent slopes
20D	Kitsap silt loam, 15 to 30 percent slopes
30A	Puget silty clay loam
31A	Puyallup fine sandy loam
37A	Semiahmoo muck
42A	Sultan silt loam
43A	Tacoma silt loam
45A	Tisch silt
4A	Bellingham silty clay loam
6A	Briscot loam
AgB	Alderwood gravelly sandy loam, 0 to 8 percent slopes
AgC	Alderwood gravelly sandy loam, 8 to 15 percent slopes
AgD	Alderwood gravelly sandy loam, 15 to 30 percent slopes
AkF	Alderwood and Kitsap soils, very steep
AmB	Arents, Alderwood material, 0 to 6 percent slopes
AmC	Arents, Alderwood material, 6 to 15 percent slopes
Bh	Bellingham silt loam
EvC	Everett very gravelly sandy loam, 8 to 15 percent slopes
EwC	Everett-Alderwood gravelly sandy loams, 6 to 15 percent slopes
KpB	Kitsap silt loam, 2 to 8 percent slopes
KpD	Kitsap silt loam, 15 to 30 percent slopes
No	Norma sandy loam
Sm	Shalcar muck
So	Snohomish silt loam
Ur	Urban land
W	Water



Data Sources: King and Pierce County; Cities of Federal Way, Fife, Milton, Tacoma (2023); Ecology (2023).

**FIGURE J4.C-3**  
Impaired Water Bodies  
Ecology 303(d) Listings  
Tacoma Dome Link Extension





## ATTACHMENT D

### **Wetland Determination Forms**

**Table D-1 Summary of Wetland Determination Sample Plots**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFI-01-SP1	Wetland	PEM	Dominance Test	Other	Primary: A1, A2, A3 Secondary: D5	Hydric Soils Rationale: Soils consist of recently reworked soils on a roadway construction site. Soils lack indicators, which may reflect altered conditions from site development, and the abundant gravel appears to be fill material. Hydric soils determination is supported by hydrophytic vegetation and strong hydrology indicators.
WFI-01-SP2	Upland	n/a	Dominance Test	none	none	
WFI-02-SP1	Wetland	PEM	Dominance Test	F6	Primary: A2, A3 Secondary: D2	
WFI-02-SP2	Wetland	PEM	Dominance Test	A11, F3, F6	Primary: A2, A3	
WFI-02-SP3	Upland	n/a	Dominance Test	F6	none	
WFI-02-SP4	Wetland	PEM	Dominance Test	F3	Primary: A2, A3 Secondary: D2, D5	
WFI-02-SP5	Upland	n/a	Dominance Test	A11, F3	Secondary: D5	
WFI-03-SP1	Wetland	PSS	Dominance Test	Other	Primary: A1, A2, A3, C4 Secondary: D2	Hydric Soils rationale: Alpha alpha dipyrindyl test was positive within the top two layers, confirming presence of iron. Geomorphic position, hydrophytic plants, and strong hydrology support presence of hydric soils.
WFI-03-SP2	Upland	n/a	Dominance Test	none	none	
WFI-03-SP3	Wetland	PSS	Dominance Test	F3	Primary: A2, A3 Secondary: D2, D5	
WFI-03-SP4	Upland	n/a	Dominance Test	none	Secondary: D5	
WFI-03-SP5	Upland	n/a	Dominance Test	none	none	
WFI-03-SP6	Wetland	PEM	Dominance Test	A4, Other	Primary: A2, A3, C1, C4 Secondary: D2	Hydric Soil Rationale: Hydrogen sulfide odor supported by a positive alpha alpha dipyrindyl test for presence of reduced iron
WFI-03-SP7	Upland	n/a	Dominance Test	none	Secondary: D5	
WFI-04-SP1	Upland	n/a	none	F6	none	
WFI-04-SP2	Wetland	PSS	Dominance Test	F6	Primary: A2, A3, B1, B2, B3 Secondary: D5	
WFI-05-SP1	Upland	n/a	Dominance Test	none	none	

Table D-1 Summary of Wetland Determination Sample Plots (continued)

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFI-05-SP2	Wetland	PEM	Dominance Test	Other	Primary: A1, A2, A3, B1 Secondary: D2	Hydric Soil Rationale: Soils are disturbed and recently hydroseeded with erosion potential. Hydric soils were assumed based on hydrology.
WFI-06-SP1	Upland	n/a	Dominance Test	none	none	
WFI-06-SP2	Wetland	PEM	Dominance Test	other	Primary: A1, A2, A3, B1 Secondary: D2	Hydric Soil Rationale: Soils are disturbed and recently hydroseeded with erosion potential. Hydric soils were assumed based on hydrology.
WFI-06-SP3	Wetland	PEM	Dominance Test	A11, F3, F6	Primary: A3	
WFI-06-SP4	Upland	n/a	Dominance Test	none	none	
WFI-06-SP5	Wetland	PEM	Dominance Test	F3, A11	Primary: A2, A3 Secondary: D2, D5	
WFI-06-SP6	Upland	n/a	Dominance Test	none	none	
WFI-07-SP1	Upland	n/a	Dominance Test	none	none	
WFI-07-SP2	Wetland	PEM	Dominance Test	other	Primary: A1, A2, A3, B1 Secondary: D2	Hydric Soil Rationale: Soils are disturbed and recently hydroseeded with erosion potential. Hydric soils were assumed based on hydrology.
WFI-07-SP3	Wetland	PEM	Dominance Test	F6	Primary: A2, A3, C3 Secondary: D2	
WFI-07-SP4	Upland	n/a	Dominance Test	none	none	
WFI-09-SP1	Wetland	PSS	Dominance Test	F6	Primary: B1, B2, B3 Secondary: D2, D5	
WFI-09-SP2	Upland	n/a	Dominance Test	none	none	
WFI-12-SP1	Wetland	PEM	Dominance Test	F3, A11	Other Secondary: D5	Wetland Hydrology Rationale: Wetland hydrology assumed, supported by hydrophytic vegetation and strong hydric soils. Wetlands in the area appear to be tidally influenced. Biologists observed water table fluctuations in real time that corresponded with tidal fluctuations that were crossed checked in tide charts. This was observed within soils pits in wetlands not connected by surface water. We're assuming that this is a result of change in pressure head from tidal influences in the aquifer. Therefore, wetland hydrology is assumed to be present, despite observations of saturation below a 12-inch depth.
WFI-12-SP2	Upland	n/a	Dominance Test	none	none	

**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFW-01-SP1	Wetland	PFO	Dominance Test	A12	Secondary: D2, D5	
WFW-01-SP2	Wetland	PFO	Dominance Test	A12	Secondary: D2, D5	
WFW-01-SP3	Upland	n/a	none	none	none	
WFW-01-SP4	Wetland	PEM	Dominance Test	other	Secondary: D2, D5	Notes: Overall wetland Cowardin class is PFO; sample point is in a PEM community. Hydric Soils rationale: Sample plot nearly meets indicator for F6, Redox Dark Surface. Dark surface layers may have redox that is difficult to see. Given presence of hydrophytic vegetation and geomorphic position below OHWM of East Fork Hylebos Creek, soil is likely seasonally flooded for 14 or more consecutive days during the growing season, and therefore hydric soils presumed to exist.
WFW-01-SP5	Upland	n/a	none	none	none	
WFW-01-SP6	Wetland	PFO	Dominance Test	F6	Primary: B1 Secondary: B9, D2	
WFW-01-SP7	Upland	n/a	none	none	none	
WFW-01-SP8	Wetland	PFO	Dominance Test	Other	Primary: B1 Secondary: D5	Hydric Soils rationale: Sample plot nearly meets redox dark surface. Given presence of water marks in the area and presence of hydrophytic vegetation, it is assumed that the area is inundated for 14 or more consecutive days during growing season and therefore hydric soil is present.
WFW-03-SP1	Wetland	PFO	Dominance Test	F6	Primary: A2, A3	
WFW-03-SP2	Upland	n/a	Dominance Test	none	none	
WFW-04-SP1	Wetland	PFO	Dominance Test	F6	Primary: A2, A3 Secondary: D5	
WFW-04-SP2	Upland	n/a	Dominance Test	none	none	
WFW-05-SP1	Wetland	PFO	Dominance Test	A12	Primary: A1, A2, A3	
WFW-05-SP2	Upland	n/a	none	none	none	
WFW-06-SP1	Wetland	PSS	Dominance Test	F6	Primary: A1, A2, A3	
WFW-06-SP2	Upland	n/a	none	none	none	
WFW-07-SP1	Wetland	PEM	Dominance Test	Other	Primary: A2, A3 Secondary: D2, D5	Hydric Soil Rationale: Soils appear to be a fluvial entisol with an aquic moisture regime. Hydric soils supported by hydrophytic vegetation and strong hydrology indicators.

**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFW-07-SP2	Upland	n/a	Dominance Test	none	none	
WFW-07-SP3	Wetland	PSS	Dominance Test	A11, F3	Primary: A3, B2, B3 Secondary: D2, D5	
WFW-07-SP4	Upland	n/a	none	none	none	
WFW-08-SP1	Wetland	PSS	Dominance Test	Other	Primary: A1, A2, A3, B1 Secondary: D2, D5	Hydric Soil Rationale: Stream has been heavily modified, evidenced by quarry spalls at 4.5 inches below ground surface, and appears to be used as a constructed stormwater facility. Soil appears to be a fluvial entisol with aquic moisture regime. Supported by strong hydrophytic vegetation, geomorphic position on stream bench, significant organics in soils, and strong wetland hydrology indicators
WFW-08-SP2	Upland	n/a	none	none	none	
WFW-08-SP3	Wetland	PEM	Dominance Test	Other	Primary: A2, A3, B1 Secondary: D2, D5	Hydric Soil Rationale: Stream has been heavily modified, evidenced by quarry spalls at 7 inches below ground surface, and appears to be used as a constructed stormwater facility. Soil appears to be a fluvial entisol with aquic moisture regime. Supported by strong hydrophytic vegetation, geomorphic position on stream bench, and strong wetland hydrology indicators.
WFW-09-SP1	Wetland	PSS	Dominance Test	A11 and F3	Primary: A2, A3, C3 Secondary: D2, D5	
WFW-09-SP2	Upland	n/a	Dominance Test	none	Secondary: D5	
WFW-10-SP01	Wetland	PFO	Dominance Test	Other	Primary: A2, A3 Secondary: D2, D5	Hydric Soil Rationale: Soils appear to be a fluvial entisol with an aquic moisture regime. Hydric soils supported by hydrophytic vegetation and strong hydrology indicators.
WFW-10-SP02	Upland	n/a	Dominance Test	none	none	
WFW-10-SP03	Wetland	PFO	Dominance Test	A4, A11	Primary: A2, A3 Secondary: D2	
WFW-10-SP04	Upland	n/a	none	none	none	
WFW-10-SP05	Wetland	PFO	Dominance Test	F6	Primary: A3 Secondary: D2	
WFW-10-SP06	Upland	n/a	Dominance Test	none	none	
WFW-10-SP07	Wetland	PFO	Dominance Test	F6	Primary: A2, A3 Secondary: D5	
WFW-10-SP08	Upland	n/a	Dominance Test	none	Secondary: D5	
WFW-10-SP09	Wetland	PFO	Dominance Test	A11	Primary: A3	



**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFW-10-SP10	Upland	n/a	None	none	none	
WFW-10-SP11	Upland	n/a	none	none	none	
WFW-10-SP12	Wetland	PFO	Dominance Test	Other	Primary: A2, A3 Secondary: D2, D5	Hydric Soil Rationale: Soils appear to be a fluvial entisol with an aquic moisture regime. Hydric soils supported by strong hydrophytic vegetation and strong hydrology indicators.
WFW-10-SP13	Wetland	PFO	Dominance Test	F6	A2, A3	
WFW-11-SP1	Wetland	PFO	Dominance Test	A11, F3	Primary: A2, A3 Secondary: D2, D5	
WFW-11-SP2	Upland	n/a	none	none	none	
WFW-11-SP3	Wetland	PEM	Dominance Test	F6	Primary: A2, A3 Secondary: D5	
WFW-11-SP4	Upland	n/a	Dominance Test	none	none	
WFW-12-SP1	Wetland	PEM	Dominance Test	other	Primary: A2, A3, B1 Secondary: D2, D5	Hydric Soil Rationale: Sample point is approximately 2m from wetted stream and is within the floodplain. The stream has been highly modified. Soils are a fluvial entisol with aquic moisture regime. Soils have high organic content that may also mask redox. Supported by strong hydrophytic vegetation and wetland hydrology
WFW-12-SP2	Upland	n/a	Dominance Test	none	none	
WFW-13-SP1	Wetland	PSS	Dominance Test	A11, F3	Primary: A3, B8 Secondary: D2	
WFW-13-SP2	Upland	n/a	none	none	none	
WFW-14-SP1	Wetland	PEM	Dominance Test	F3	Primary: C3 Secondary: D2	
WFW-14-SP2	Upland	n/a	Dominance Test	none	none	
WFW-14-SP3	Upland	n/a	Dominance Test	none	none	
WFW-15-SP1	Wetland	PFO	Dominance Test	A11	A3	
WFW-15-SP2	Upland	n/a	none	none	none	
WFW-15-SP3	Wetland	PFO	Dominance Test	F6	Primary: A2, A3 Secondary: D2, D5	
WFW-15-SP4	Upland	n/a	none	none	none	
WFW-15-SP5	Wetland	PFO	Dominance Test	F6	Primary: A2, A3 Secondary: D2	

**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFW-16-SP1	Wetland	PEM	Dominance Test	A11, F3	Primary: A3 Secondary: B10, D5	
WFW-16-SP2	Upland	n/a	none	A11, F3	none	
WFW-16-SP3	Wetland	PSS	Dominance Test	A11, F3	Primary: A2, A3 Secondary: D5	
WFW-16-SP4	Upland	n/a	Dominance Test	A11, F3	none	
WFW-17-SP1	Wetland	PFO	Dominance Test	A11	Primary: A2, A3	
WFW-17-SP2	Upland	n/a	Dominance Test	none	Primary: A2, A3	
WFW-18-SP1	Wetland	PSS	Dominance Test	F3	Primary: A1, A2, A3 Secondary: D5	The sample is located within the a PSS community that includes a some tree cover in this sample point.
WFW-18-SP2	Upland	n/a	Dominance Test	none	Primary: A2, A3	
WFW-21-SP1	Wetland	PSS	Dominance Test	F6	Primary: A2, A3, B1, B2, B3 Secondary: D2, D5	
WFW-21-SP2	Upland	n/a	none	A11, F3	none	
WFW-22-SP1	Wetland	PSS	Dominance Test	A11, F3	Primary: A1, A2, A3, B4 Secondary: D2, D5	
WFW-22-SP2	Upland	n/a	Dominance Test	F3	none	
WFW-23-SP1	Wetland	PEM	Dominance Test	A11, F3	Primary: A1, A2, A3	
WFW-23-SP2	Upland	n/a	none	none	none	
WFW-24-SP1	Wetland	PFO	Dominance Test	A11, F3	Primary: B1, B2, B3, B5, B8 Secondary: B9, D2	
WFW-24-SP2	Upland	n/a	Dominance Test	none	Secondary: B9, C9	
WFW-25-SP1	Wetland	PFO	Dominance Test	A11, F3,	Primary: A3 Secondary: D2	
WFW-25-SP2	Wetland	PFO	Dominance Test	A11, F3	Primary: A1, A2, A3, C1 Secondary: B9, C9	
WFW-26-SP1	Upland	n/a	Dominance Test	none	Secondary: D5	

Table D-1 Summary of Wetland Determination Sample Plots (continued)

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFW-26-SP2	Wetland	PFO	Dominance Test	A11, F3	Primary: A3 Secondary: D2, D5	
WFW-26-SP3	Upland	n/a	Dominance Test	none	none	
WFW-27-SP1	Wetland	PSS	Dominance Test	A11, F3	Primary: A2, A3 Secondary: D2	
WFW-27-SP2	Upland	n/a	Dominance Test	F3	Secondary: D5	
WFW-34-SP1	Upland	n/a	Dominance Test	none	Secondary: D5	
WFW-34-SP2	Wetland	PFO	Dominance Test	other	Primary: A2, A3 Secondary: D2, D5	Naturally problematic soils; No hydric soil indicators, but dark organics may be masking redox features. Strong hydrophytic vegetation and hydrology indicators support the determination of wetland.
WFW-36-SP1	Wetland	PFO	Dominance Test	F6	Primary: A2, A3, C3 Secondary: B10, D5	
WFW-36-SP2	Upland	n/a	Dominance Test	none	none	
WFW-36-SP3	Wetland	PEM	Dominance Test	F3, A11	Primary: A2, A3 Secondary: D2, D5	
WFW-36-SP4	Upland	n/a	Dominance Test	none	none	
WFW-37-SP1	Wetland	PFO	Dominance Test	A4, A11, F3	Primary: A2, A3, C1, C3	
WFW-37-SP2	Upland	n/a	Dominance Test	none	none	
WFW-37-SP3	Wetland	PSS	Dominance Test	F3	Primary: A2, A3 Secondary: D5	
WFW-37-SP4	Upland	n/a	Dominance Test	none	none	
WFW-37-SP5	Wetland	PEM	Dominance Test	other	Primary: A1, A2, A3 Secondary: C9, D2, D5	Sample point located in 2 to 3 feet of standing water of a pond feature that is part of the broader wetland. Inundated soils not observed, presumed hydric based on on strong hydrophytic vegetation and wetland hydrology.
WFW-37-SP6	Upland	n/a	Dominance Test	F6	none	
WFW-38-SP1	Upland	n/a	Dominance Test	none	none	
WFW-38-SP2	Wetland	PFO	Dominance Test	A1, A4	Primary: A2, A3, C1 Secondary: D2, D5	
WFW-39-SP1	Upland	n/a	Dominance Test	none	none	

**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WFW-39-SP2	Wetland	PFO	Dominance Test	A1	Primary: A3 Secondary: D2, D5	
WFW-39-SP3	Upland	n/a	Dominance Test	none	none	
WFW-39-SP4	Wetland	PFO	Dominance Test	A11, F3	Primary: C3 Secondary: D2, D5	
WFW-42-SP1	Upland	n/a	Dominance Test	none	none	
WFW-42-SP2	Wetland	PEM	Rapid Test, Dominance Test	A11	Primary: A3, C3 Secondary: D2, D5	
WFW-43-SP1	Wetland	PFO	Dominance Test	A4, F6	Primary: A2, A3, C1	
WFW-43-SP2	Upland	n/a	none	none	none	
WFW-44-SP1	Wetland	PEM	Rapid Test, Dominance Test	A4, F6	Primary: A2, A3, C4	
WFW-44-SP2	Upland	n/a	Dominance Test	none	none	
WFW-45-SP1	Wetland	PFO	Dominance Test	F6	Primary: C3 Secondary: B10, D5	
WFW-45-SP2	Upland	n/a	Dominance Test	F3	none	
WFW-46-SP1	Wetland	PSS	Dominance Test	F1	Primary: A2, A3	
WFW-46-SP2	Upland	n/a	none	none	none	
WMI-02-SP1	Wetland	PEM	Dominance Test	F3	Primary: A2, A3 Secondary: D5	
WMI-02-SP2	Upland	n/a	Dominance Test	none	Secondary: D5	
WMI-03-SP1	Upland	n/a	Dominance Test	F3	Secondary: D5	
WMI-03-SP2	Wetland	PEM	Dominance Test	F3	Primary: A2, A3 Secondary: D2, D5	
WMI-04-SP1	Upland	n/a	Dominance Test	A11, F3	Secondary: D2, D5	
WMI-04-SP2	Wetland	PSS	Dominance Test	F7	Primary: A3 Secondary: D2, D5	
WMI-04-SP3	Upland	n/a	Dominance Test	A11, F3	Secondary: D2, D5	
WMI-04-SP4	Upland	n/a	Dominance Test	A11	Secondary: D2, D5	

**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

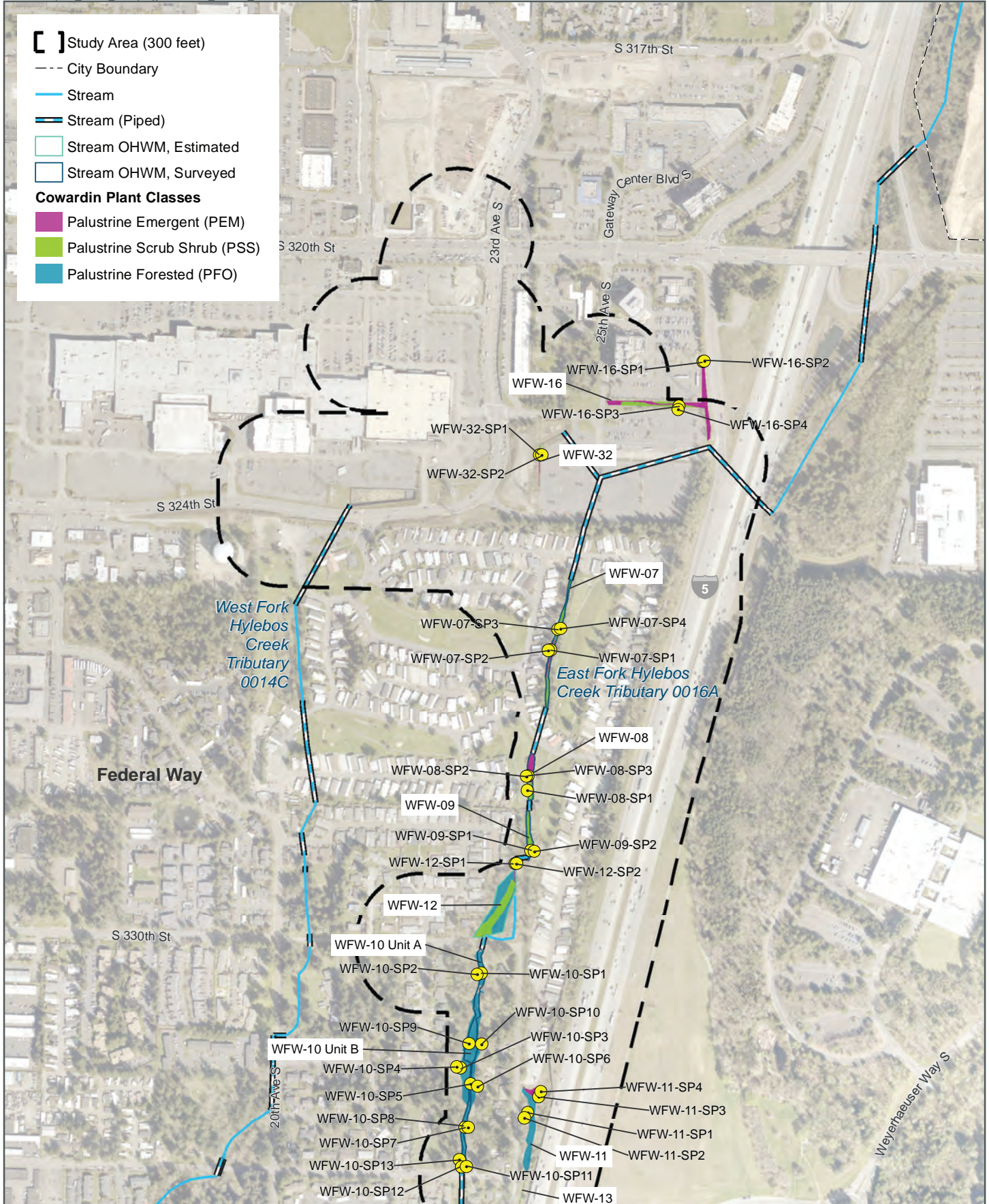
Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WMI-04-SP5	Upland	n/a	Dominance Test	none	none	
WMI-06-SP1	Wetland	PEM	Dominance Test	F3	Primary: A2, A3 Secondary: D2, D5	
WMI-06-SP2	Upland	n/a	Dominance Test	A11, F3	none	
WMI-07-SP3	Upland	n/a	Dominance Test	F3	none	
WMI-07-SP4	Wetland	PSS	Dominance Test	F3	Primary: A2, A3	
WMI-07-SP5	Upland	n/a	none	none	none	
WMI-07-SP6	Wetland	PEM	Rapid Test, Dominance Test	F6	Primary: A2, A3 Secondary: D2, D5	
WMI-08-SP1	Upland	n/a	none	F3	none	
WMI-08-SP2	Wetland	PSS	Dominance Test	F3	Primary: A3 Secondary: D5	
WMI-08-SP3	Upland	n/a	Dominance Test	none	Secondary: D5	
WMI-08-SP4	Wetland	PEM	Dominance Test	A11, F3	Primary: A2, A3 Secondary: D2, D5	
WMI-09a-SP1	Wetland	PFO	Dominance Test	F3	Primary: A2, A3 Secondary: D5	
WMI-09a-SP2	Upland	n/a	none	none	none	
WMI-09a-SP3	Wetland	PFO	Dominance Test	F1	Primary: A2, A3 Secondary: D2, D5	
WMI-09a-SP4	Upland	n/a	none	none	none	
WMI-09a-SP5	Wetland	PFO	Dominance Test	A1, A4, F1	Primary: A2, A3, C1 Secondary: D2, D5	
WMI-09a-SP6	Wetland	PFO	Dominance Test	F3	Primary: A2, A3, C3	
WMI-09a-SP7	Upland	n/a	Dominance Test	none	none	
WMI-09a-SP8	Wetland	PEM	Rapid Test for Hydrophytic Vegetation	F3	Primary: A3 Secondary: D2 D5	
WMI-09a-SP9	Upland	n/a	Dominance Test	none	none	
WMI-09b-SP1	Wetland	PSS	Dominance Test	A1, A4	Primary: A3, C1, C4 Secondary: D2, D5	

**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WMI-09b-SP2	Upland	n/a	Dominance Test	none	none	
WMI-09b-SP3	Wetland	PEM	Dominance Test	F3	Primary: A3, C3 Secondary: D5	
WMI-09b-SP4	Upland	n/a	Dominance Test	none	none	
WMI-09b-SP5	Wetland	PFO	Dominance Test	F3	Primary: A2, A3, C3, C4 Secondary: D5	
WMI-09b-SP6	Upland	n/a	Dominance Test	none	none	
WMI-10-SP1	Upland	n/a	none	none	none	
WMI-10-SP2	Wetland	PSS	Dominance Test	F3	Primary: C3	
WMI-11-SP-1	Wetland	PFO	Dominance Test	F3	Primary: B2, C3 Secondary: D2, D5	
WMI-11-SP-2	Upland	n/a	Dominance Test	F3	none	
WMI-12-SP1	Wetland	PFO	Dominance Test	F3	Primary: C3 Secondary: D5	
WMI-12-SP2	Upland	n/a	Dominance Test	F3	none	
WMI-12-SP3	Wetland	PFO	Dominance Test	F3, F6	Primary: C3 Secondary: D2, D5	
WMIFW-01-SP01	Wetland	PSS	Dominance Test	A4, F6	Primary: A2, A3, C1 Secondary: D2, D5	
WMIFW-01-SP02	Upland	n/a	Dominance Test	none	none	
WMIFW-01-SP03	Wetland	PSS	Dominance Test	A4, A11, F2, F3	Primary: A1, A2, A3, C1	
WMIFW-01-SP04	Upland	n/a	none	none	Primary: A3	
WMIFW-01-SP05	Upland	n/a	none	F3	none	
WMIFW-01-SP06	Wetland	PFO	Dominance Test	A11, F2	Primary: A2, A3 Secondary: D2, D5	
WMIFW-01-SP07	Upland	n/a	none	none	none	
WMIFW-01-SP08	Wetland	PSS	Dominance Test	A4, A11, F3	Primary: A1, A2, A3, C1 Secondary: D2, D5	
WMIFW-01-SP09	Wetland	PEM	Dominance Test	A11, F3	Primary: A3 Secondary: D2, D5	
WMIFW-01-SP10	Upland	n/a	Dominance Test	none	Secondary: D5	

**Table D-1 Summary of Wetland Determination Sample Plots (continued)**

Sample Point	Wetland Determination (wetland/upland)	USFWS Wetland Sample Point Classification	Vegetation	Soils	Hydrology	Report Notes
WMIFW-11-SP11	Wetland	PEM	Dominance Test	F6	Primary: A3 Secondary: D5	
WMIFW-11-SP12	Upland	n/a	Dominance Test	F3	Secondary: D5	
WPCFI-02-SP1	Wetland	PEM	Dominance Test	A4, A11, F3, F6	Primary: A3, C1, C3 Secondary: D2, D5	
WPCFI-02-SP2	Wetland	PSS	Dominance Test	F3	Primary: A3 Secondary: D2	
WPCFI-02-SP3	Upland	n/a	Dominance Test	none	Secondary: D5	
WTA-01-SP1	Wetland	PSS	Problematic Hydrophytic Vegetation	F6	Primary: B1, B2, B3, C3 Secondary: B10, D2	Hydrophytic Vegetation Rationale: Vegetation dominated by two non-native, weedy species. Bohemian knotweed, which has a FACU indicator, is commonly found in riverine areas that are regularly flooded.
WTA-01-SP2	Upland	n/a	Dominance Test	none	none	
SP FW V1	Upland	n/a	Dominance Test	none	none	
SP FW V2	Upland	n/a	none	none	none	
SP FW V3	Upland	n/a	none	none	none	
SP FW V4	Upland	n/a	none	none	none	
SP FW V5	Upland	n/a	none	none	Primary: A1, A2, A3	
SP FW V6	Upland	n/a	Dominance Test	none	Primary: A2, A3	
SP FW V7	Upland	n/a	Dominance Test	none	Primary: A2, A3	
SP FW V8	Upland	n/a	Dominance Test	n/a	none	



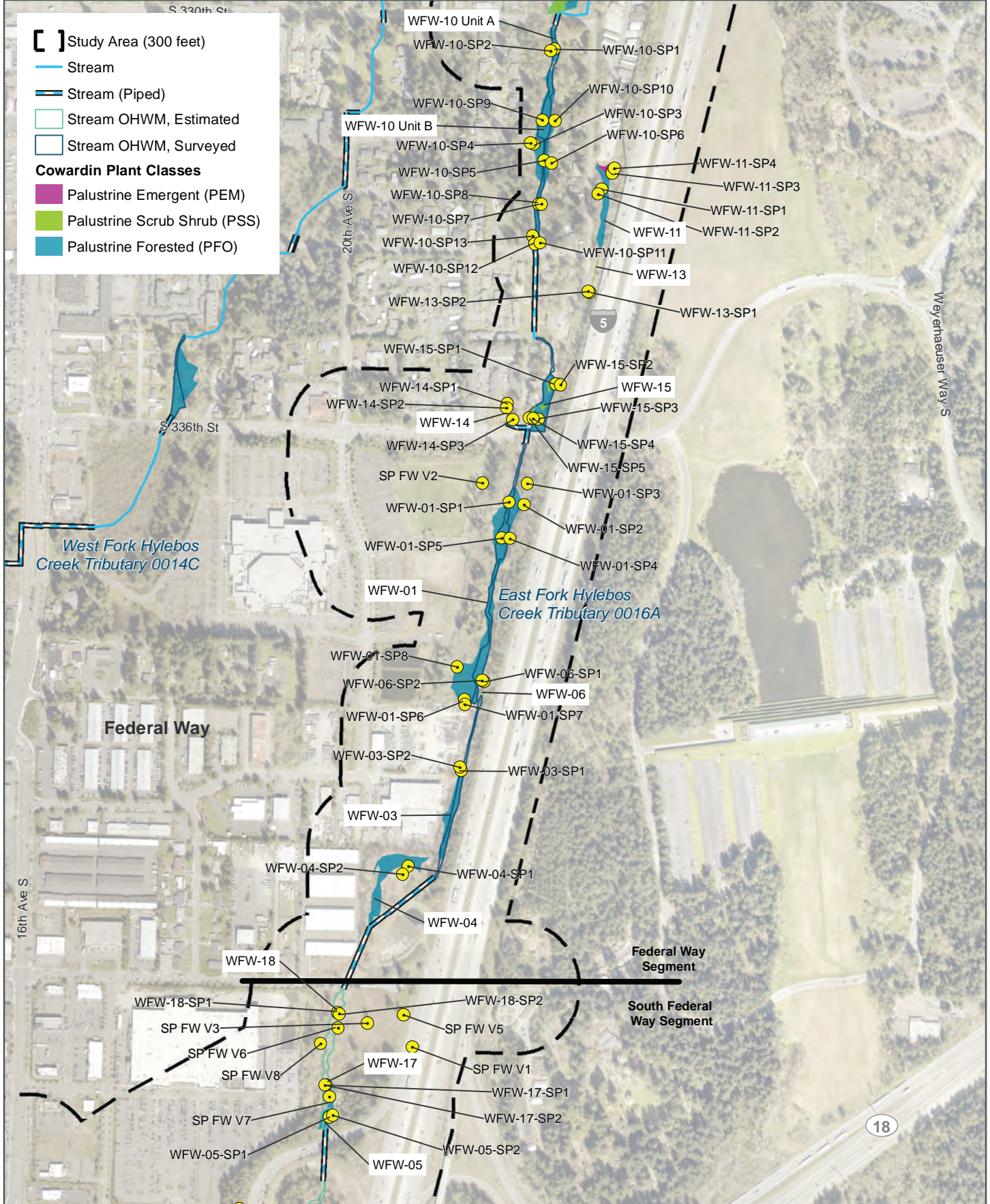
Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).



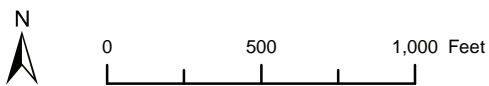
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**FIGURE J4.D-1A**  
**Wetland Determination Sample Points**  
**Federal Way Segment**  
*Tacoma Dome Link Extension*





Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

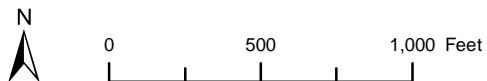


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**FIGURE J4.D-1B**  
Wetland Determination Sample Points  
Federal Way Segment  
Tacoma Dome Link Extension

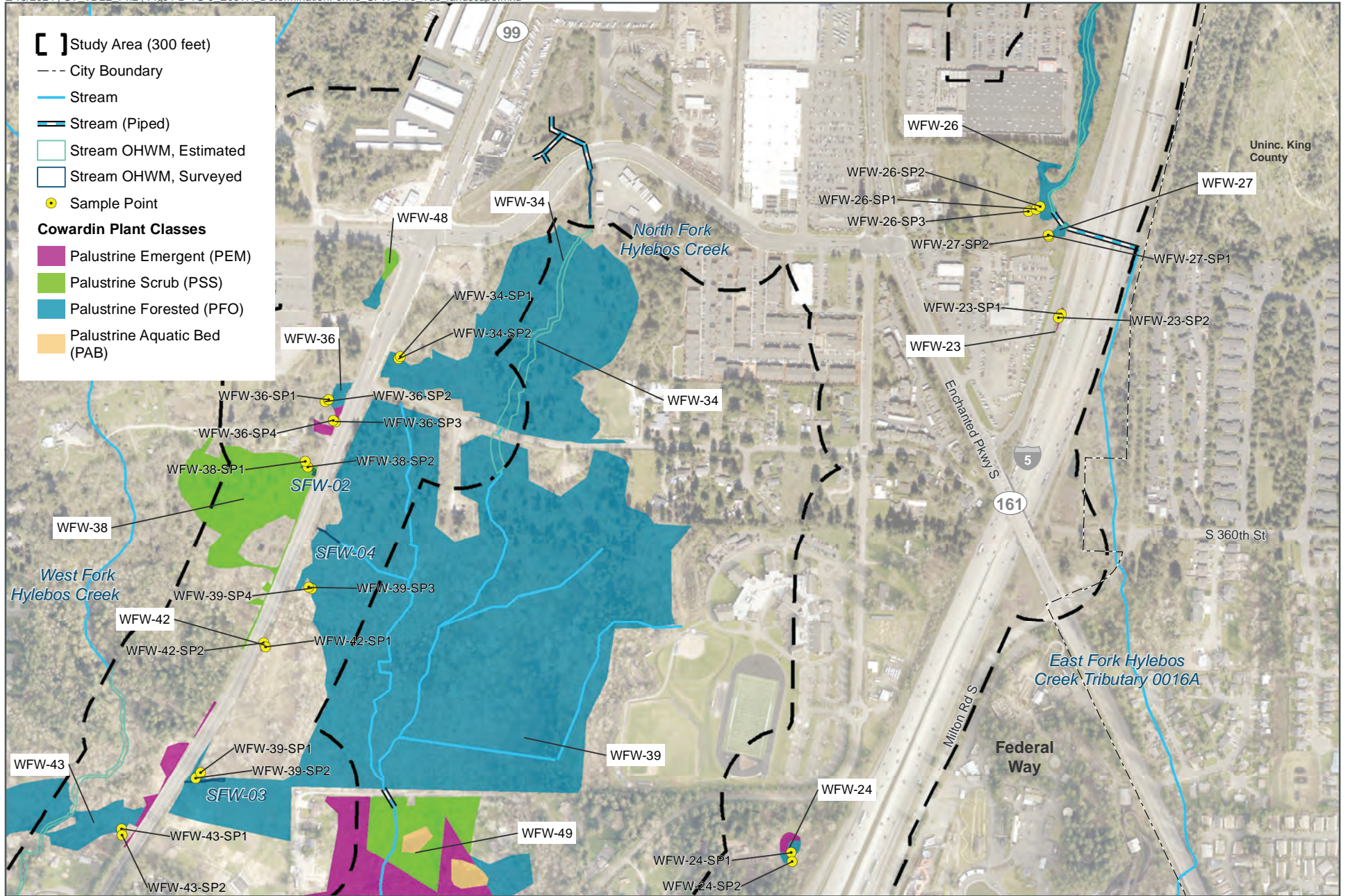


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

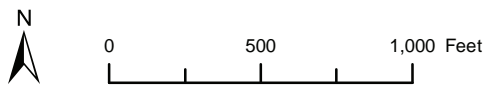


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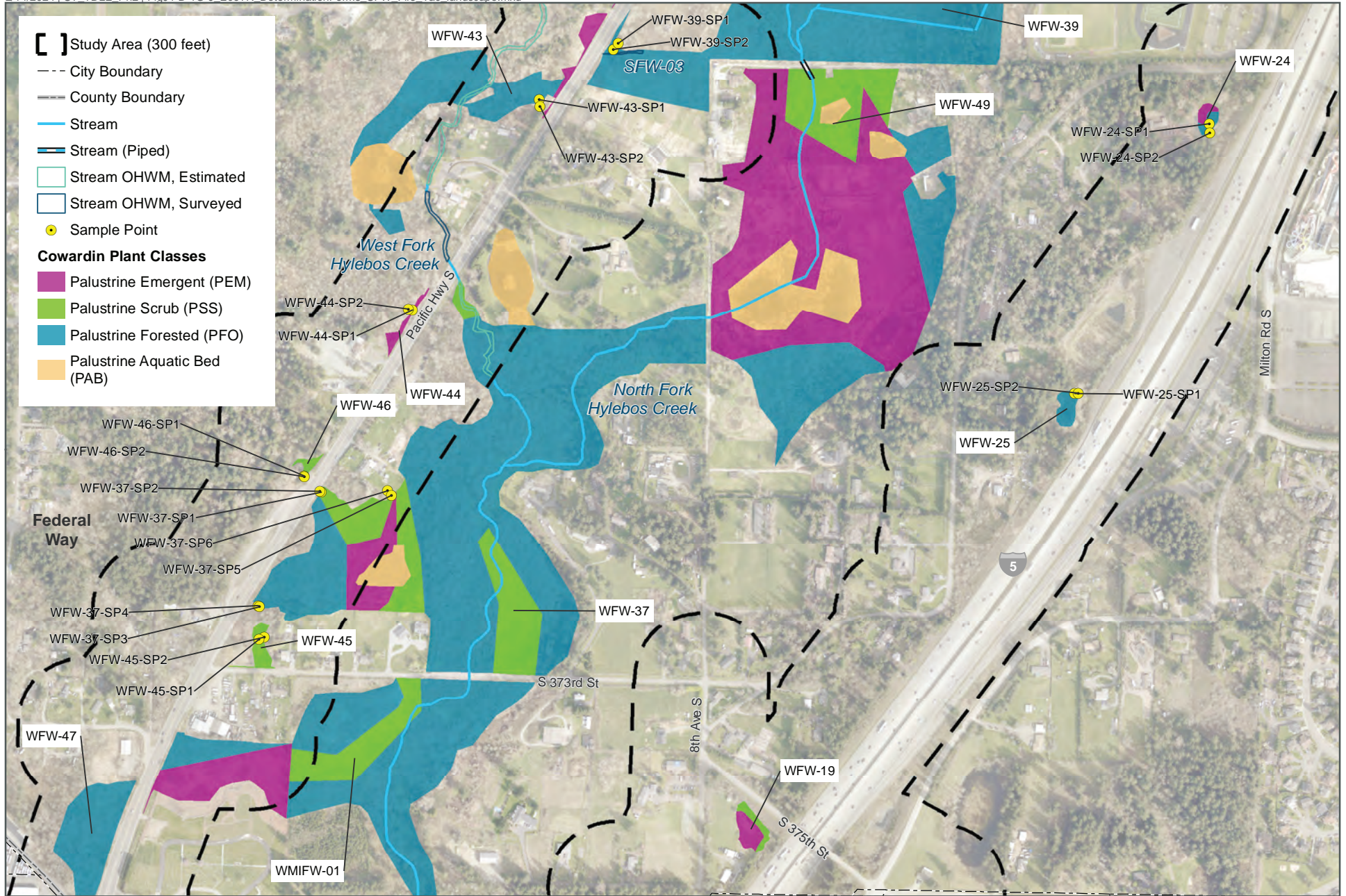
**FIGURE J4.D-1C**  
 Wetland Determination Sample Points  
 South Federal Way Segment  
 Tacoma Dome Link Extension



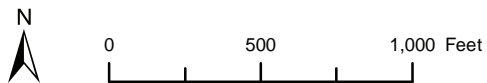
Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).



**FIGURE J4.D-1D**  
 Wetland Determination Sample Points  
 South Federal Way Segment  
 Tacoma Dome Link Extension

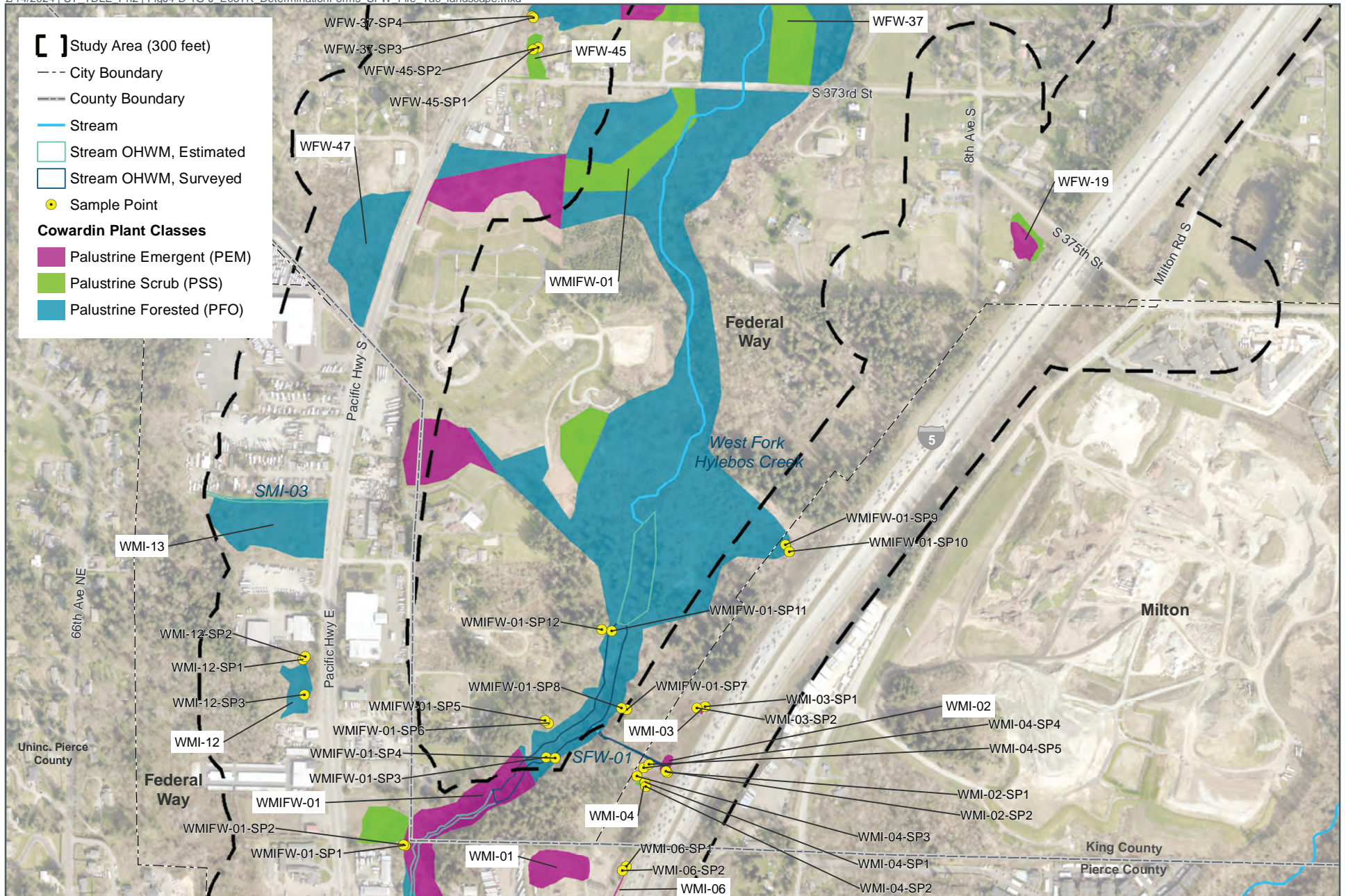


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

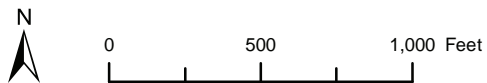


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**FIGURE J4.D-1E**  
Wetland Determination Sample Points  
South Federal Way Segment  
Tacoma Dome Link Extension

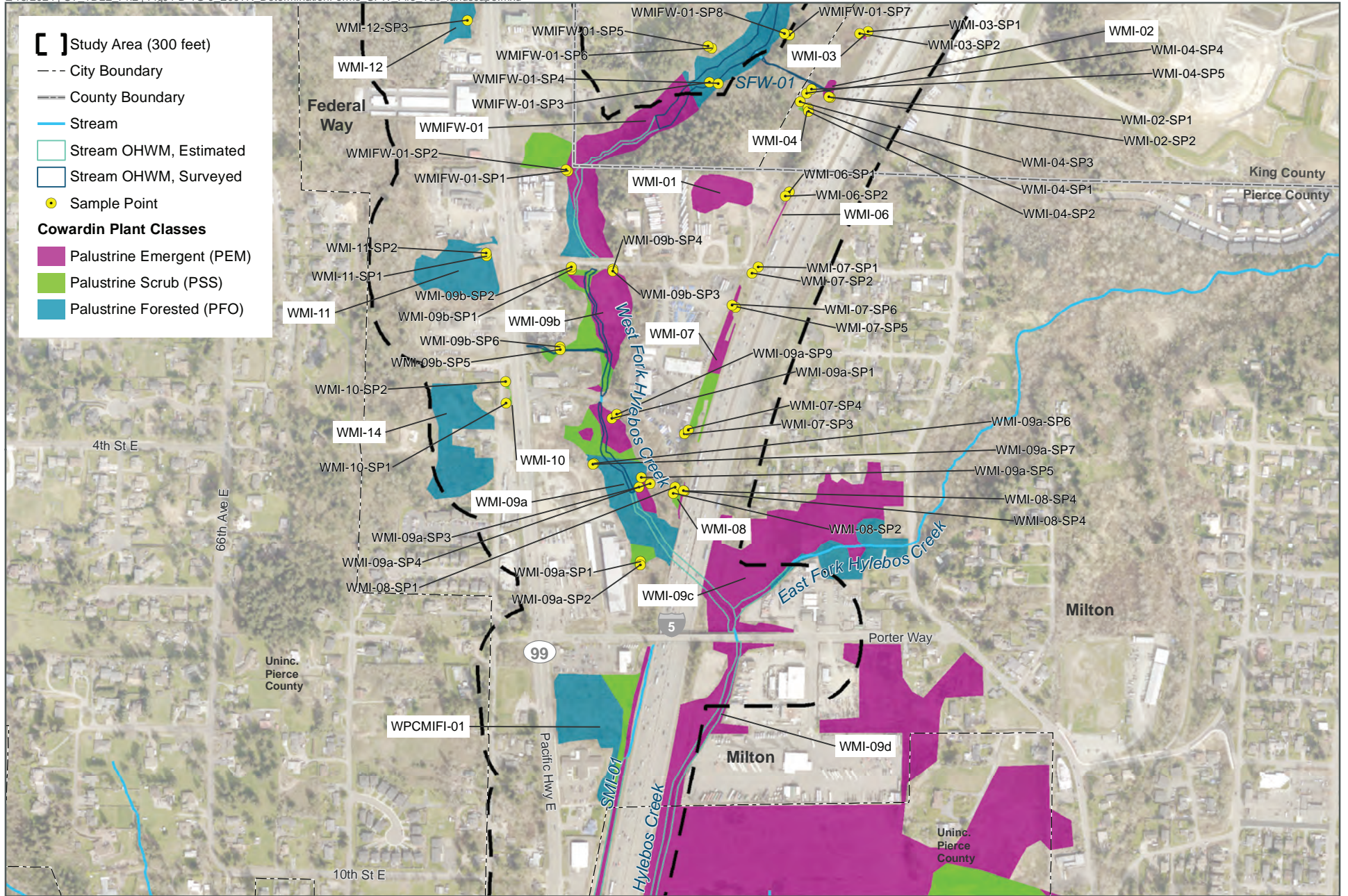


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

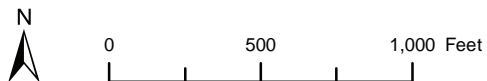


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**FIGURE J4.D-1F**  
 Wetland Determination Sample Points  
 South Federal Way Segment  
 Tacoma Dome Link Extension

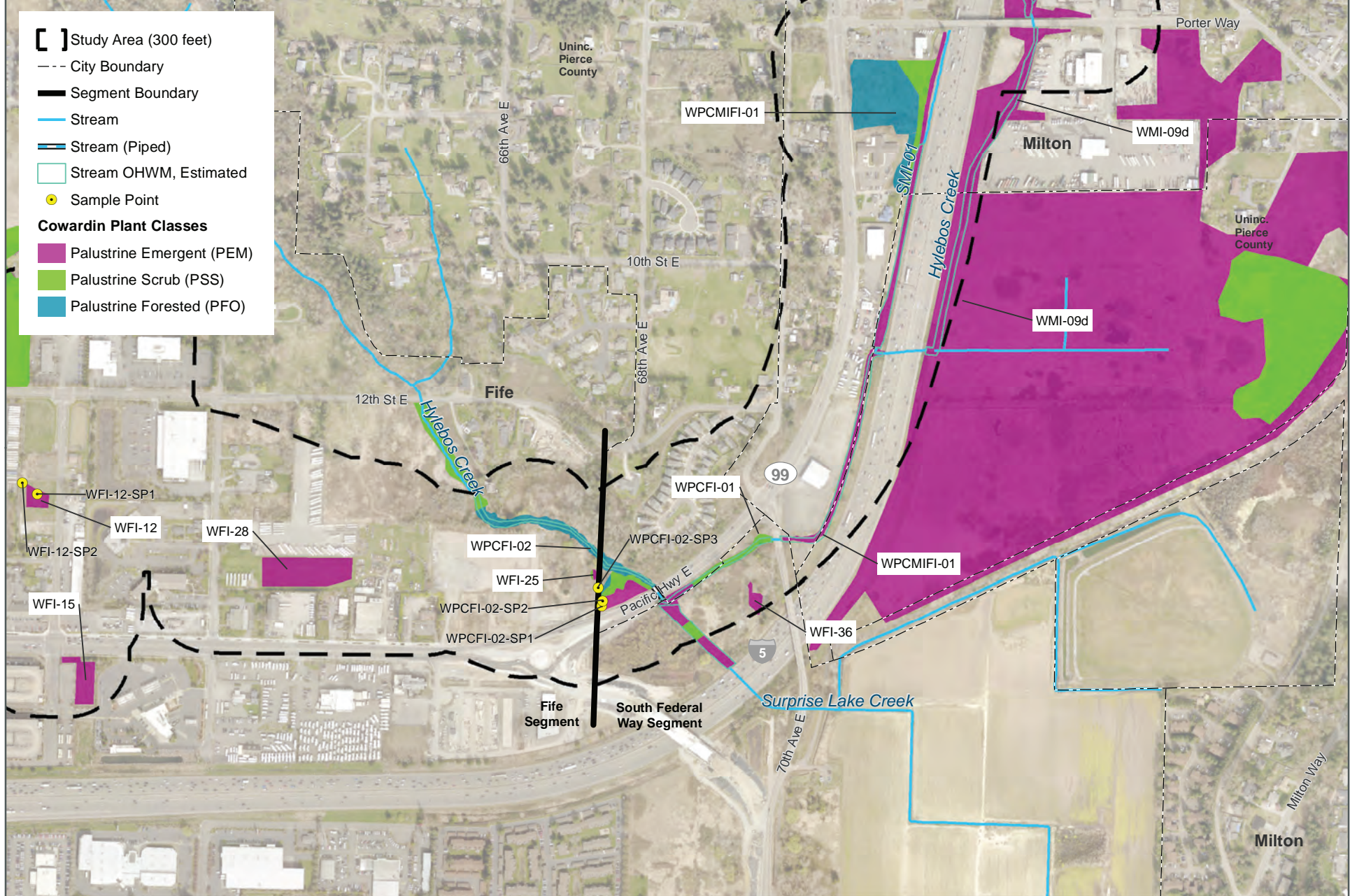


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

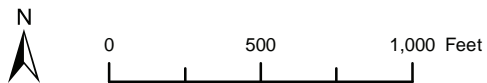


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**FIGURE J4.D-1G**  
 Wetland Determination Sample Points  
 South Federal Way Segment  
 Tacoma Dome Link Extension

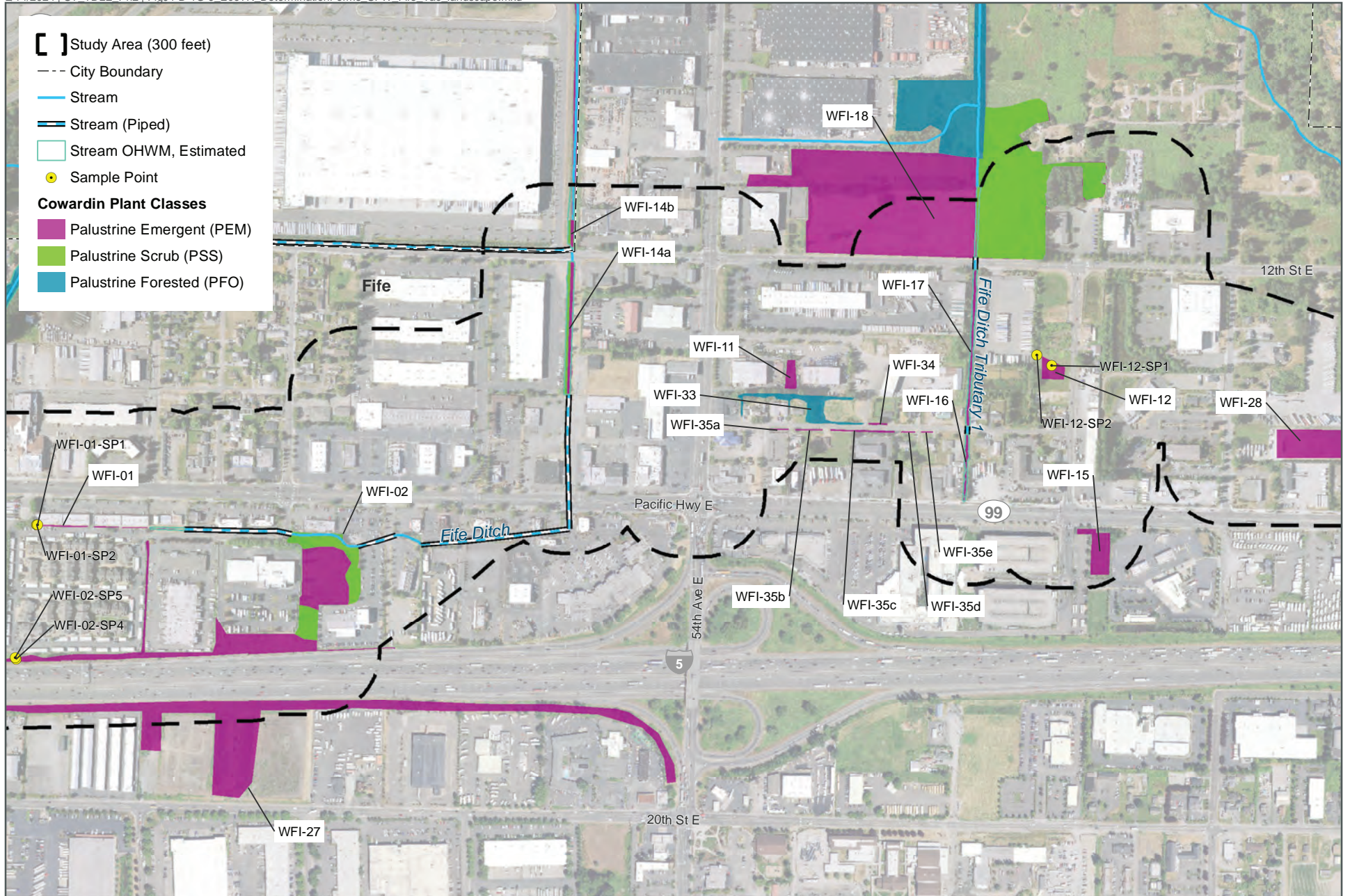


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

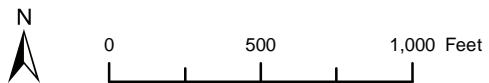


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**FIGURE J4.D-1H**  
 Wetland Determination Sample Points  
 South Federal Way and Fife Segments  
 Tacoma Dome Link Extension



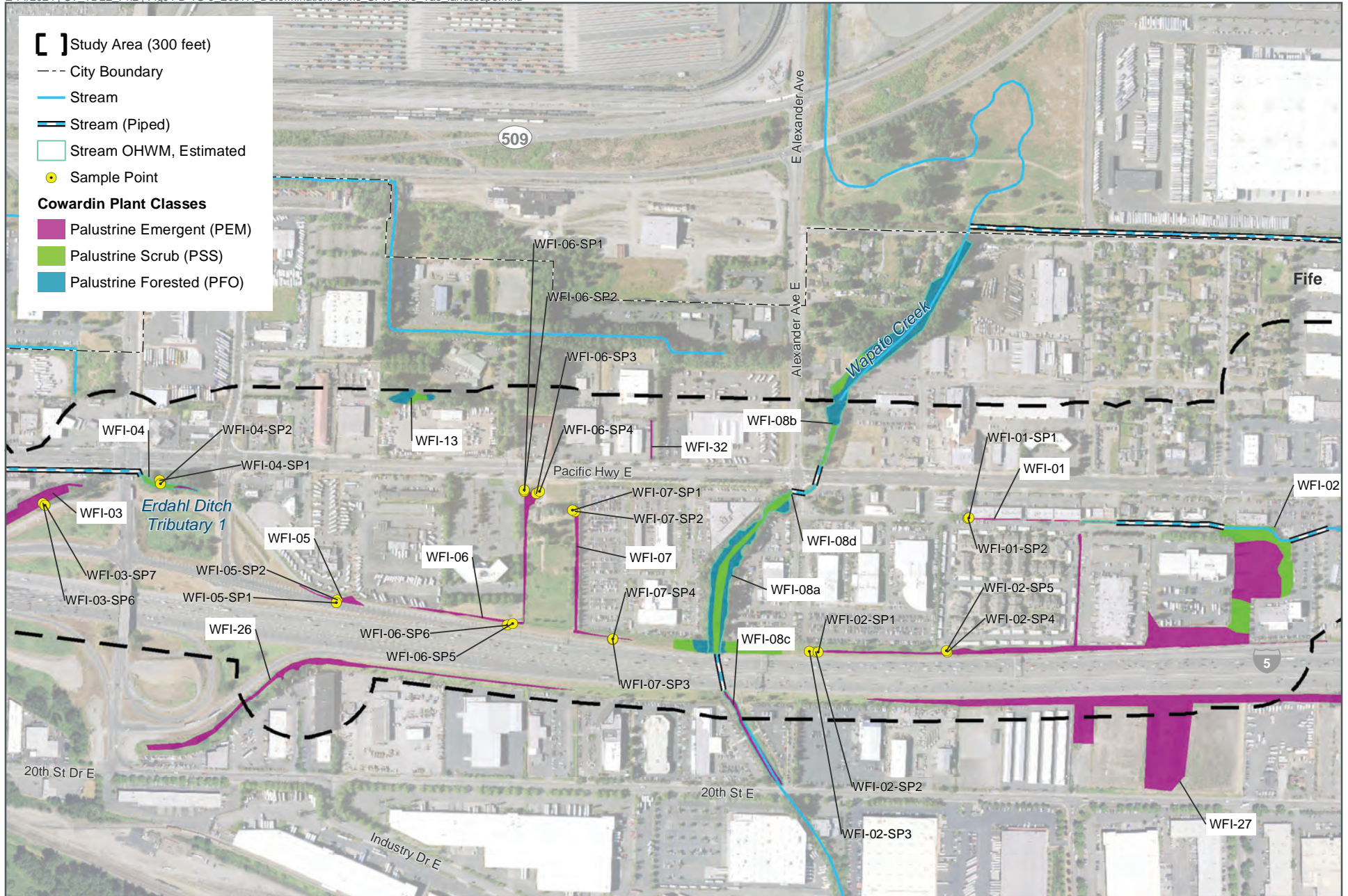
Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).



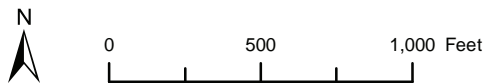
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**FIGURE J4.D-11**  
Wetland Determination Sample Points  
Fife Segment  
Tacoma Dome Link Extension



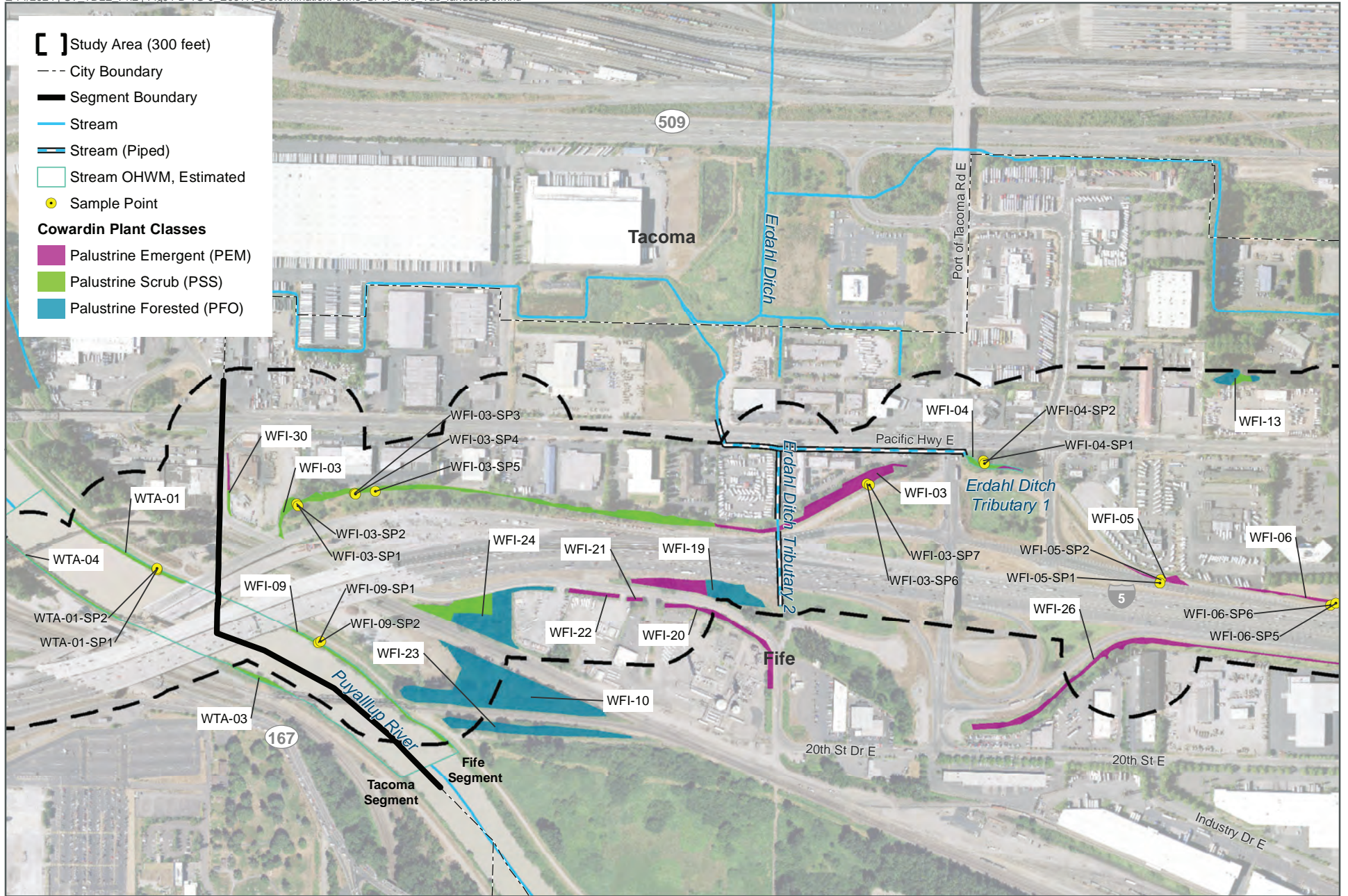


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

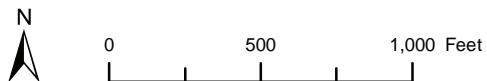


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**FIGURE J4.D-1J**  
Wetland Determination Sample Points  
Fife Segment  
Tacoma Dome Link Extension

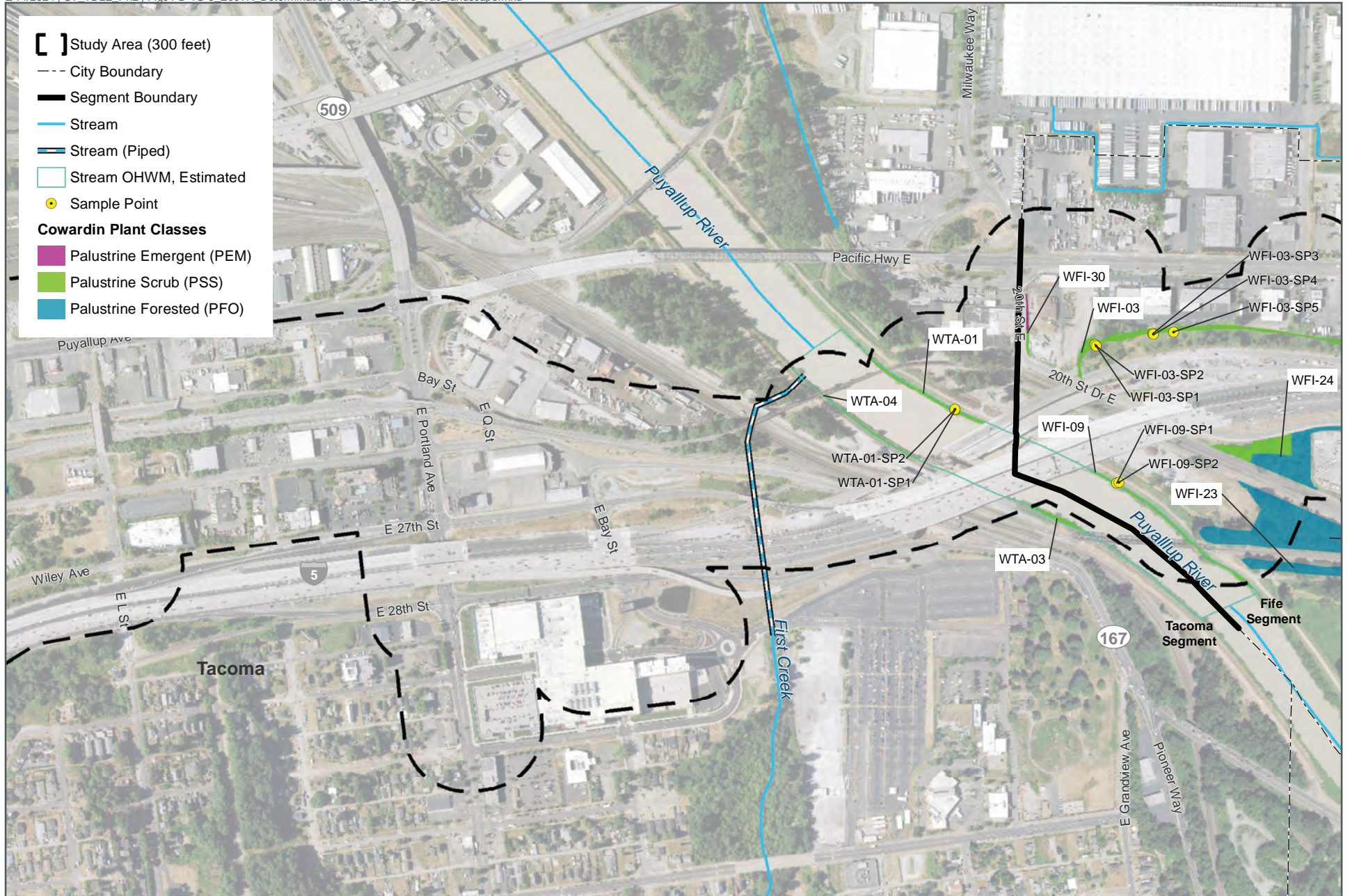


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

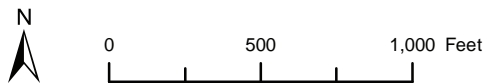


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**FIGURE J4.D-1K**  
 Wetland Determination Sample Points  
 Fife and Tacoma Segments  
 Tacoma Dome Link Extension

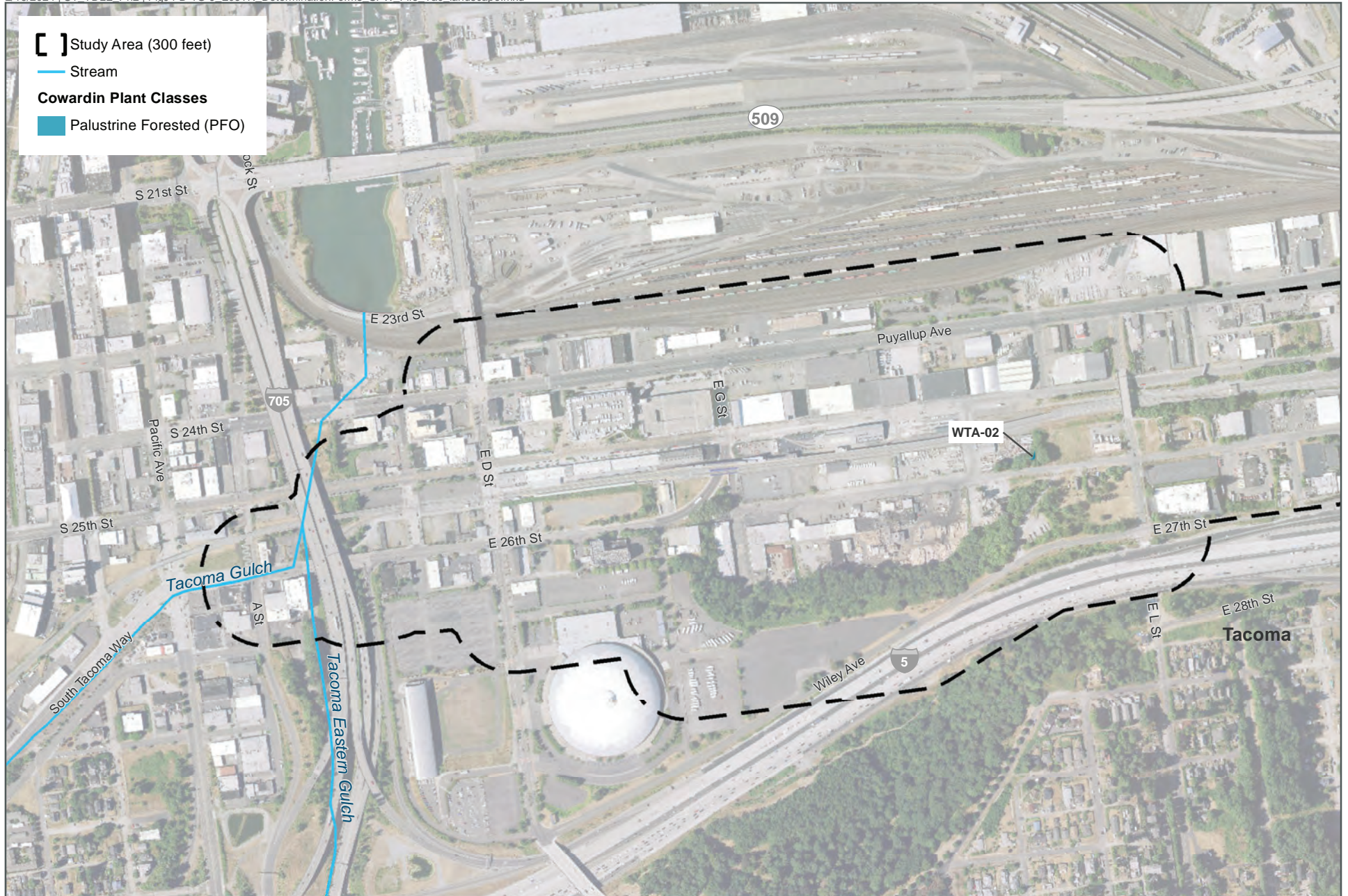


Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).

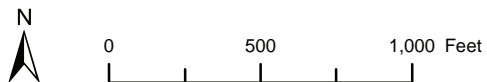


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**FIGURE J4.D-1L**  
 Wetland Determination Sample Points  
 Tacoma Segment  
 Tacoma Dome Link Extension



Data Sources: WDFW; King and Pierce Counties; Cities of Federal Way, Fife, Milton, Tacoma (2023).



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**FIGURE J4.D-1M**  
Wetland Determination Sample Points  
Tacoma Segment  
*Tacoma Dome Link Extension*

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/18/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-01-SP1  
 Investigator(s): Irina Lapina, Aaron Thom Section, Township, Range: T20N R03E S01 A SESW  
 Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242620 Long: -122.369592 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 \_\_\_\_\_, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PEM wetland SP. Ditch vegetation with standing water, no OHW indicators, stormwater inputs. The wetland is surrounded by dense urban development and the northern boundary of the wetland appears to have been created by the fill pad for the buildings. Problematic soils due to lack of indicators, which may reflect altered conditions from development.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		<u>90%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
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>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>10%</u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFI-01-SP1
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture
0-16	10YR 2/2	100					GrSaL

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

<b>Restrictive Layer (if present):</b>	<b>Hydric Soil Present?</b>
Type: none _____	Yes <input checked="" type="checkbox"/> No _____
Depth (inches): n/a _____	

**Remarks:**  
 Soils consist of recently reworked soils on a roadway construction site. Problematic soils due to lack of indicators, which may reflect altered conditions from development. Abundant gravel appears to be fill material. Hydric soils assumed supported by hydrophytic vegetation and strong hydrology indicators.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required: check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<input checked="" 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)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____	Yes <input checked="" type="checkbox"/> No _____
Water Table Present? Yes <input checked="" type="checkbox"/> No _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____	
(includes capillary fringe)	
Depth (inches): 6 _____	
Depth (inches): surface _____	
Depth (inches): surface _____	

**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: TDLE City/County: Fife, Pierce County Sampling Date: 2/18/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-01-SP2  
 Investigator(s): Irina Lapina, Aaron Thom Section, Township, Range: T20N R03E S12 A NENW  
 Landform (hillslope, terrace, etc.): ditch in floodplain Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242612 Long: -122.369611 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is located on a slope of the ditch side. Site is confined by parking structure.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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=5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		30%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		30% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=5'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		30%	Yes	FACW	
2. <u>Galium aparine</u>		20%	Yes	FACU	
3. <u>Taraxacum officinale</u>		5%	No	FACU	
4. <u>Senecio vulgaris</u>		5%	No	FACU	
5. <u>Cardamine hirsuta</u>		3%	No	FACU	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		63% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=5'</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>37%</u>			

**Remarks:**  
 Vegetation is cut down. Lots of trash

**SOIL** **Sampling Point: WFI-01-SP2**

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-14	10YR 2/1	100					GrSaL	
14-16	10YR 2/1	60	2.5YR 5/8	5	C	M	GrSaL	imported fill/cobble
			10YR 4/1	35	D	M		

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: none Depth (inches): N/A	<b>Hydric Soil Present?</b> Yes _____ No <u>X</u>
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**Remarks:**  
Assumed to be non-hydric based on lack of wetland hydrology during very wet seasonal conditions.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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)	

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

**Remarks:**  
This saturation may be due to the wetter conditions and the wetter than normal precipitation



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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/18/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-02-SP1  
 Investigator(s): Irina Lapina, Aaron Thom Section, Township, Range: T20N R03E S12 A NENW  
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240840 Long: -122.372413 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PEM wetland SP. This sample point is located on the roadside of the I-5 southbound.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
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=5ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ranunculus repens</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Alopecurus pratensis</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Holcus lanatus</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Agrostis stolonifera</u>		<u>20%</u>	<u>No</u>	<u>FAC</u>	
5. <u>Stellaria media</u>		<u>15%</u>	<u>No</u>	<u>FACU</u>	
6. <u>Taraxacum officinale</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
7. <u>Rumex crispus</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
8. <u>      </u>					
9. <u>      </u>					
10. <u>      </u>					
11. <u>      </u>					
190% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=5ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>none</u>					
2. <u>      </u>					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



<b>SOIL</b>							<b>Sampling Point: WFI-02-SP1</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth (inches)	Matrix		Redox Features				
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture
0-4	10YR 2/2	93	7.5YR 2.5/3	7	C	PL,M	CL
4-16	10YR 3/1	75	5YR 3/4	25	C	PL,M	SaL
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> Texture: Sa = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)							
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
___ Histosol (A1)		___ Sandy Redox (S5)		___ 2 cm Muck (A10)			
___ Histic Epipedon (A2)		___ Stripped Matrix (S6)		___ Red Parent Material (TF2)			
___ Black Histic (A3)		___ Loamy Mucky Mineral (F1) (except MLRA 1)		___ Very Shallow Dark Surface (TF12)			
___ Hydrogen Sulfide (A4)		___ Loamy Gleyed Matrix (F2)		___ Other (Explain in Remarks)			
___ Depleted Below Dark Surface (A11)		___ Depleted Matrix (F3)					
___ Thick Dark Surface (A12)		<input checked="" type="checkbox"/> Redox Dark Surface (F6)				<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
___ Sandy Mucky Mineral (S1)		___ Depleted Dark Surface (F7)					
___ Sandy Gleyed Matrix (S4)		___ Redox Depressions (F8)					
<b>Restrictive Layer (if present):</b>				<b>Hydric Soil Present?</b>			
Type: <u>none</u>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Depth (inches): <u>N/A</u>							
<b>Remarks:</b>							
<b>HYDROLOGY</b>							
<b>Wetland Hydrology Indicators:</b>							
<u>Primary Indicators (minimum of one required; check all that apply)</u>				<u>Secondary Indicators (2 or more required)</u>			
___ Surface Water (A1)		___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)		___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)			
<input checked="" type="checkbox"/> High Water Table (A2)		___ Salt Crust (B11)		___ Drainage Patterns (B10)			
<input checked="" type="checkbox"/> Saturation (A3)		___ Aquatic Invertebrates (B13)		___ Dry-Season Water Table (C2)			
___ Water Marks (B1)		___ Hydrogen Sulfide Odor (C1)		___ Saturation Visible on Aerial Imagery (C9)			
___ Sediment Deposits (B2)		___ Oxidized Rhizospheres along Living Roots (C3)		<input checked="" type="checkbox"/> Geomorphic Position (D2)			
___ Drift Deposits (B3)		___ Presence of Reduced Iron (C4)		___ Shallow Aquitard (D3)			
___ Algal Mat or Crust (B4)		___ Recent Iron Reduction in Tilled Soils (C6)		___ FAC-Neutral Test (D5)			
___ Iron Deposits (B5)		___ Stunted or Stressed Plants (D1) (LRR A)		___ Raised Ant Mounds (D6) (LRR A)			
___ Surface Soil Cracks (B6)		___ Other (Explain in Remarks)		___ Frost-Heave Hummocks (D7)			
___ Inundation Visible on Aerial Imagery (B7)							
___ Sparsely Vegetated Concave Surface (B8)							
<b>Field Observations:</b>				<b>Wetland Hydrology Present?</b>			
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 checked="" type="checkbox"/> No <input type="checkbox"/>		Depth (inches): <u>8</u>			
Saturation Present? (includes capillary fringe)		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Depth (inches): <u>6</u>			
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>							
<b>Remarks:</b>							

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/18/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-02-SP2  
 Investigator(s): Irina Lapina, Aaron Thom Section, Township, Range: T20N R03E S12 A NENW  
 Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240838 Long: -122.372463 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PEM wetland SP. Sample point is slightly upslope of WFI-02-SP1. It is in the right-of-way I-5 southbound. Identification of hydric soils in this disturbed area was based on direct observation of hydrology.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>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> )	Absolute % Cover	Dominant Species?	Indicator Status	
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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ranunculus repens</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Schedonorus arundinaceus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Alopecurus pratensis</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Holcus lanatus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
5. <u>Stellaria media</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
6. <u>Rumex crispus</u>		<u>3%</u>	<u>No</u>	<u>FAC</u>	
7. <u>Taraxacum officinale</u>		<u>1%</u>	<u>No</u>	<u>FACU</u>	
8. <u>      </u>					
9. <u>      </u>					
10. <u>      </u>					
11. <u>      </u>					
159% = 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>					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-4	10YR 3/2	98	10YR 3/6	2	C	M	CL	
4-7	10YR 3/2	90	5YR 4/6	10	C	PL	SaCL	
7-16	5Y 4/1	80	7.5YR 4/6	20	C	PL	SaL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <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)  <sup>3</sup> 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 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)	

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

**Hydric Soil Present?**      Yes       No

**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) (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"/> Other (Explain in Remarks)

**Field Observations:**

Surface Water Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>11.5</u>	
Saturation Present? (includes capillary fringe)      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>8.5</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: TDLE City/County: Fife, Pierce County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-02-SP3  
 Investigator(s): Irina Lapina, Aaron Thom Section, Township, Range: T20N R03E S12 A NENW  
 Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240843 Long: -122.372585 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is on the roadside.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>					
0% = 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>					
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ranunculus repens</u>		<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Alopecurus pratensis</u>		<u>35%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Schedonorus arundinaceus</u>		<u>35%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Poa pratensis</u>		<u>15%</u>	<u>No</u>	<u>FAC</u>	
5. <u>Stellaria media</u>		<u>15%</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>					
170% = 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>					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7.5	10YR 2/2	99	7.5YR 3/4	1	C	PL	CL	
7.5-16	10YR 3/2	70	7.5YR 3/4	30	C	PL,M	SaL	

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

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Thick Dark Surface (A12) <input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>none</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b>      Yes <u>X</u>      No <u>      </u></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Other (Explain in Remarks)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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><b>Field Observations:</b></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>X</u>      No <u>      </u>    Depth (inches): <u>14</u></p> <p>(includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>      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:**  
 In this location, creeping buttercup is an aggressive invasive species that occurs in wetlands and uplands and is a poor indicator. Soils are heavily disturbed. The site was carefully evaluated for jurisdictional hydrology during a wetter than normal rainy season.

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-02-SP4  
 Investigator(s): Irina Lapina, Aaron Thom Section, Township, Range: T20N R03E S12 A NENW  
 Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240869 Long: -122.369953 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PEM sample point

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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=5ft</u> )				
1. <u>Phalaris arundinacea</u>		<u>100%</u>	<u>Yes</u>	<u>FACW</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>					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. <u>      </u>					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



<b>SOIL</b>							<b>Sampling Point:</b> WFI-02-SP4
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture
0-8	10YR 3/3	100					L
8-16	2.5Y 4/1	93	7.5YR 3/3	7	C	PL,M	CL

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<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)		

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

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

**Remarks:**

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**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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 checked="" 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 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 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)		

<b>Field Observations:</b>			<b>Wetland Hydrology</b>	
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<b>Present?</b>	<b>Yes</b> <input checked="" type="checkbox"/> <b>No</b> <input type="checkbox"/>
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): 8		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): 1		

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

**Remarks:**  
Surface water present nearby outside of 5ft radius plot



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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-02-SP5  
 Investigator(s): Irina Lapina, Aaron Thom Section, Township, Range: T20N R03E S12 A NENW  
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240890 Long: -122.369965 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>30ft</u> )				
1. <u>Rubus armeniacus</u>		<u>3%</u>	<u>No</u>	<u>FAC</u>	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		3% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5ft</u> )				
1. <u>Phalaris arundinacea</u>		<u>100%</u>	<u>Yes</u>	<u>FACW</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>					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>30ft</u> )				
1. <u>none</u>					
2. <u>      </u>					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



SOIL							Sampling Point:	WFI-02-SP5
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 <sup>1</sup>			Loc <sup>2</sup>
0-7	10YR 3/2	100					CL	
7-11	10YR 4/1	100					CL	
11-16	10YR 4/1	80	10YR 3/6	20	C	M	CL	with cobble

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :	
<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)	<sup>3</sup> 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?
Type: <u>none</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): <u>N/A</u>	

**Remarks:**  
Redoximorphic features in second layer (7-11") likely very small and/or masked by organics

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### 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"/> 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 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 type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>16</u>	
Saturation Present? (includes capillary fringe)    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>13</u>	

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

**Remarks:**  
Hydrology conditions are wetter than normal, so saturation likely ephemeral and not a reflection of wetland hydrology. In this location, reed canary grass is an aggressive invasive species that occurs in wetlands and uplands and is a poor indicator. Soils are heavily disturbed. The site was carefully evaluated for jurisdictional hydrology during a wetter than normal rainy season.

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-03-SP1  
 Investigator(s): I. Lapina, A. Thom Section, Township, Range: T20N R03E S11 L 1  
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242153 Long: -122.398150 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Tacoma silt loam - 43A - 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       , Soil x, or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>x</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PSS wetland SP is located at the toe of a slope of I-5 road prism. Located East of Earling Street, north of I-5.  
 Soils are recently disturbed and lack indicators; however, positive alpha alpha dipyrilidyl test and support of hydrophytic vegetation and wetland hydrology supports presence of hydric soils.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>Salix scouleriana</u>	<u>10%</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>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=30'</u> )		<u>10%</u> = Total Cover			
1.	<u>Rubus armeniacus</u>	<u>50%</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>	
<b>Herb Stratum</b> (Plot size: <u>r=5'</u> )		<u>50%</u> = Total Cover			
1.	<u>Phalaris arundinacea</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Galium aparine</u>	<u>7%</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Cardamine oligosperma</u>	<u>5%</u>	<u>No</u>	<u>FAC</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>	
<b>Woody Vine Stratum</b> (Plot size: <u>r=5'</u> )		<u>92%</u> = Total Cover			
1.	<u>none</u>	<u>      </u>	<u>      </u>	<u>      </u>	
2.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
<b>% Bare Ground in Herb Stratum</b> <u>8%</u>		<u>0%</u> = Total Cover			

**Remarks:**

**SOIL** **Sampling Point: WFI-03-SP1**

**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 <sup>1</sup>		
0-3	10YR 3/2	100				SaL	AAD positive-strong
3-9	10YR 4/1	100				SaL	AAD positive-faint
9-15	2.5Y 2.5/1	90	7.5YR 5/8	10	C	M	cobbles

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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 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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>compacted rock, cobbles</u> Depth (inches): <u>15</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
Problematic soils: alpha alpha dipyrldyl (AAD) test was positive within the top two layers, confirming presence of iron. Geomorphic position, hydrophytic plants, and strong hydrology support presence of hydric soils.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<input checked="" 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)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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>1</u>	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	

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

**Remarks:**  
Surface water within 10 feet of the SP.

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-03-SP2  
 Investigator(s): I. Lapina, A. Thom Section, Township, Range: T20N R03E S11 L 1  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242129 Long: -122.398128 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Tacoma silt loam - 43A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP to WMI-03-SP1. Located on I-5 road prism.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (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=30'</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		85%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		85% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=5'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		20%	Yes	FACW	
2. <u>Cardamine oligosperma</u>		3%	No	FAC	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		23% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=5'</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>20%</u>					

**Remarks:**  
 many fallen logs and branches. Feather moss approx. 40%

**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 <sup>1</sup>		
0-9	10YR 3/3	100				GrSaL	
9-12	10YR 3/2	100				GrSaL	cobbles
12+							cobbles, compacted

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>cobbles, compacted gravel</u> Depth (inches): <u>12</u>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
<b>Primary Indicators (minimum of one required; check all that apply)</b>		
<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 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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-03-SP3  
 Investigator(s): I. Lapina, A. Thom Section, Township, Range: T20N R03E S11 L 1  
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242307 Long: -122.397054 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Tacoma silt loam - 43A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes <u>X</u>	No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>      </u>	
<b>Yes <u>X</u> No <u>      </u></b>			

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PSS Wetland SP located at toe of slope of I-5 road prism

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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=5'</u> )				
1. <u>Rubus armeniacus</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		<u>50%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=5'</u> )				
1. <u>Phalaris arundinacea</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</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>					
		<u>30%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=5'</u> )				
1. <u>none</u>					
2. <u>      </u>					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/3	100					CL	
4-7	10YR 4/2	95	7.5YR 4/6	5	C	M	CL	cobbles
7-16	10YR 4/1	85	7.5YR 4/6	15	C	M	CL	cobbles, gravel

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: none Depth (inches): n/a	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<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"/> Other (Explain in Remarks)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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 checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 11.5	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 10.5	

**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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-03-SP4  
 Investigator(s): I. Lapina, A. Thom Section, Township, Range: T20N R03E S11 L 1  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242292 Long: -122.397030 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Tacoma silt loam - 43A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>
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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP located upslope of SP3 on I-5 road prism

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>					
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=30'</u> )		0% = Total Cover			
1. <u>Rubus armeniacus</u>		100%	Yes	FAC	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
<b>Herb Stratum</b> (Plot size: <u>r=5'</u> )		100% = Total Cover			
1. <u>Phalaris arundinacea</u>		3%	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>      </u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Cirsium arvense</u>		3%	Yes	FAC	
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>					
<b>Woody Vine Stratum</b> (Plot size: <u>r=5'</u> )		6% = Total Cover			
1. <u>none</u>					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
2. <u>      </u>					
<b>% Bare Ground in Herb Stratum</b> <u>94%</u>		0% = Total Cover			

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/2	100					CL	
4-14	10YR 4/3	100					CL	
14-16	10YR 4/2	95	10YR 4/6	5	C	M	GrCL	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: none Depth (inches): n/a	<b>Hydric Soil Present?</b> Yes _____ No <u>X</u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-03-SP5  
 Investigator(s): I. Lapina, A. Thom Section, Township, Range: T20N R03E S11 L 1  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242333 Long: -122.396655 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP for Wetland WFI-03

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=30'</u> )				
1. <u>Rubus armeniacus</u>		100%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		100% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
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=5'</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>100%</u>				

**Remarks:**

**SOIL** Sampling Point: **WFI-03-SP5**

**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 <sup>1</sup>	Loc <sup>2</sup>	
0-16	10YR 3/3	100					CL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <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)
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**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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)	<p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: none _____</p> <p>Depth (inches): n/a _____</p>	<p><b>Hydric Soil Present?</b></p> <p>Yes _____ No <input checked="" type="checkbox"/></p>
--	--

**Remarks:**

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<p><u>Primary Indicators (minimum of one required: check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<p><u>Secondary Indicators (2 or more required)</u></p> <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)
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<p><b>Field Observations:</b></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><b>Wetland Hydrology Present?</b></p> <p>Yes _____ No <input checked="" type="checkbox"/></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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-03-SP6  
 Investigator(s): K. Moser, M. Murphy Section, Township, Range: T20N R03E S11 A NWNE  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242565 Long: -122.387262 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PEM Wetland SP, located along southern boundary of WFI-03.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		100%	Yes	FACW	
2. _____					
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			
<b>% Bare Ground in Herb Stratum</b>		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 <sup>1</sup>		
0-7	10YR 3/2	100				L	
7-16	10YR 4/1	100				GrSaL	

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

<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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 checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input checked="" 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)	

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

<b>Restrictive Layer (if present):</b> Type: none Depth (inches): n/a	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
Positive alpha alpha dipyrldyl test for presence of reduced iron

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<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 checked="" 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"/> Other (Explain in Remarks)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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 checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 5	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 3 (includes capillary fringe)	

**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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-03-SP7  
 Investigator(s): K. Moser, M. Murphy Section, Township, Range: T20N R03E S11 A NWNE  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242545 Long: -122.387217 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
			Yes _____ No _____

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 upland SP located upslope of SP6

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>none</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	<u>Phalaris arundinacea</u>	<u>95%</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Cardamine oligosperma</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
3.	_____	_____	_____	_____	
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			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>1</sup>		
0-4	10YR 3/2	100				L	
4-8	10YR 3/2	50				L	mixed matrix
	10YR 3/3	50				L	
8-16	10YR 3/3	100				L	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>      </u> No <u>  X  </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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)	

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-04-SP1  
 Investigator(s): J. Wozniak, Per Johnson Section, Township, Range: T20N R03E S02 A SWSE  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242892 Long: -122.385048 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
Yes _____ No <u>X</u>			

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is located above the Erdahl Ditch Tributary 1

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>33%</u> (A/B)
1. <u>Acer macrophyllum</u>		<u>65%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>65%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b>	(Plot size: <u>r=2m</u> )				
1. <u>Prunus laurocerasus</u>		<u>20%</u>	<u>Yes</u>	<u>NOL</u>	
2. <u>Vaccinium ovatum</u>		<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Gaultheria shallon</u>		<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
4. <u>Rubus armeniacus</u>		<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
5. _____		_____	_____	_____	
		<u>50%</u> = Total Cover			
<b>Herb Stratum</b>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Phalaris arundinacea</u>		<u>50%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>50%</u> = Total Cover			
<b>Woody Vine Stratum</b>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>50%</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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-3	10YR 3/2	100					L	
3-20	10YR 3/2	60	10YR 4/2	25	D	M	GrSaL	
			10YR 4/6	15	C	M,PL		

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

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

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

Type: none

Depth (inches): n/a

**Hydric Soil Present?**                      Yes                       No

**Remarks:**

**HYDROLOGY**

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

**Field Observations:**

Surface Water Present?      Yes       No       Depth (inches): \_\_\_\_\_

Water Table Present?        Yes       No       Depth (inches): \_\_\_\_\_

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

**Wetland Hydrology Present?**                      Yes                       No

**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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-04-SP2  
 Investigator(s): J. Wozniak, Per Johnson Section, Township, Range: T20N R03E S02 A SWSE  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242852 Long: -122.385024 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PSS wetland sample point located on a low bench along the Erdahl Ditch Tributary 1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		20% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Phalaris arundinacea</u>		<u>90%</u>	<u>Yes</u>	<u>FACW</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>					
		90% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. <u>      </u>					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>10%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFI-04-SP2
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-16	10YR 2/1	90	10YR 4/6	10	C	M	L

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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 checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input checked="" 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 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)	

<b>Field Observations:</b> 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>2</u> Saturation Present?        Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-05-SP1  
 Investigator(s): J. Wozniak, Per Johnson Section, Township, Range: T20N R03E S11 A NENE  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.241387 Long: -122.381610 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This site has been recently graded and hydroseeded. It is erosion prone, therefore soils were not sampled.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				
1. <u>Poa pratensis</u>		60%	Yes	FAC	
2. <u>Ranunculus repens</u>		40%	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			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



**SOIL** Sampling Point: **WFI-05-SP1**

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

Depth (inches)	Matrix		Redox Features				Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <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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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes _____	No <u>  </u> <b>X</b> _____
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**Remarks:**  
 Soil data not taken due to high disturbance and recent hydroseeding. Non-hydric soils assumed based on lack of hydrology.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<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)	<u>Secondary Indicators (2 or more required)</u> <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)
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**Field Observations:**

Surface Water Present?	Yes _____	No <u>  </u> <b>X</b> _____	Depth (inches): _____
Water Table Present?	Yes _____	No <u>  </u> <b>X</b> _____	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No <u>  </u> <b>X</b> _____	Depth (inches): _____

<b>Wetland Hydrology Present?</b>	Yes _____	No <u>  </u> <b>X</b> _____
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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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-05-SP2  
 Investigator(s): J. Wozniak, Per Johnson Section, Township, Range: T20N R03E S11 A NENE  
 Landform (hillslope, terrace, etc.): Surface Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.241350 Long: -122.381630 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This site has been recently graded and hydroseeded. It is erosion prone, therefore soils were not sampled. This is the PEM pit for WFI-5.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Ranunculus repens</u>		<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Poa pratensis</u>		<u>30%</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> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			

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

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

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

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**                      Yes                       No

**Remarks:**  
Soils are disturbed and recently hydroseeded with erosion potential. Hydric soils were assumed based on hydrology.

**HYDROLOGY**

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

**Field Observations:**

Surface Water Present?    Yes     No                       Depth (inches): 2

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

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

**Wetland Hydrology Present?**                      Yes                       No

**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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-06-SP1  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S01 A SWSW  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242850 Long: -122.378081 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Sample point is located in the upland region off the western boundary of WFI-06.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Poa pratensis</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Trifolium repens</u>		<u>50%</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> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>1</sup>		

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

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

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

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes _____	No <u>  X  </u>
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**Remarks:**  
Soils have been recently re-graded and are highly disturbed.

**HYDROLOGY**

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

**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)

<b>Wetland Hydrology Present?</b>	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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-06-SP2  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S01 A SWSW  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242867 Long: -122.378087 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
<b>Yes <u>X</u> No _____</b>			

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

**Remarks:**  
 This site has been recently graded and hydroseeded. Site is erosion prone so soils are not sampled. This sample point is located in a PEM wetland in the western portion of WFI-06.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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					<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
<b><u>Sapling/Shrub Stratum</u></b>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
<u>0%</u> = Total Cover					
<b><u>Herb Stratum</u></b>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Poa pratensis</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Trifolium repens</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<u>100%</u> = Total Cover					
<b><u>Woody Vine Stratum</u></b>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
<u>0%</u> = Total Cover					
<b>% Bare Ground in Herb Stratum</b>	<u>0%</u>				

**Remarks:**



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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-06-SP3  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S01 A SWSW  
 Landform (hillslope, terrace, etc.): Slight slope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242822 Long: -122.377856 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 This sample point is the PEM wetland pit for WFI-06. It was dug east of the ditch feature.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Poa pratensis</u>		90%	Yes	FAC	
2. <u>Ranunculus repens</u>		15%	No	FAC	
3. <u>Trifolium pratense</u>		5%	No	FACU	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		110% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		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 <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	100					CL	
5-10	10YR 3/2	75	5Y 4/1	20	D	M	CL	
			7.5YR 4/4	5	C	M	CL	
10-16	10YR 4/1	70	7.5YR 5/8	20	C	M	C	
			2.5YR 4/2	10	C	M	C	

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

<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	
<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)		

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

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

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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)		

<b>Field Observations:</b> 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>  14  </u> Saturation Present?        Yes <u>  X  </u> No <u>      </u> Depth (inches): <u>  11  </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-06-SP4  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S01 A SWSW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242851 Long: -122.377796 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 This sample point is located on a grassy slope upslope and north of Wetland WFI-06.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>none</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	<u>Poa pratensis</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Ranunculus repens</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
3.	<u>Holcus lanatus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		120% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1.	<u>none</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**

SOIL							Sampling Point:	WFI-06-SP4
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 <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-7	10YR 3/3	100	none				SiL	
7-11	10YR 3/3	99	7.5YR 3/4	1	C	PL	SiCL	
11-16	10YR 4/1	70	7.5YR 3/4	30	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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"/> 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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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)		

<b>Field Observations:</b> 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>  X  </u> No <u>      </u> Depth (inches): <u>  17  </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-06-SP5  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S11 A NENE  
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.241130 Long: -122.378253 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes <u>X</u>	No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>      </u>	
<b>Yes <u>X</u> No <u>      </u></b>			

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

**Remarks:**  
 PEM wetland SP; in ditch

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>	<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>	
		<u>0%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Prevalence Index worksheet:</b> 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>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>	
		<u>0%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>      </u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Poa pratensis</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Trifolium repens</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3.	<u>Phalaris arundinacea</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</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> )				<b>Hydrophytic Vegetation Present?</b> 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			
<b>% Bare Ground in Herb Stratum</b> <u>      10%      </u>					

**Remarks:**

SOIL						Sampling Point:	WFI-06-SP5
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 <sup>1</sup>		
0-3	10YR 2/2	100					L
3-14	10YR 4/2	95	10YR 4/6	5	C	M	L

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input checked="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="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)

2 cm Muck (A10)  
 Red Parent Material (TF2)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

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

<b>Restrictive Layer (if present):</b> Type: none _____ Depth (inches): n/a _____	<b>Hydric Soil Present?</b> Yes <input checked="checked" type="checkbox"/> No _____
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Remarks:

HYDROLOGY	
<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1) <input checked="checked" type="checkbox"/> High Water Table (A2) <input checked="checked" type="checkbox"/> Saturation (A3) <input 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)	<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)
<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="checked" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="checked" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)	

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <input checked="checked" type="checkbox"/> Water Table Present?      Yes <input checked="checked" type="checkbox"/> No _____ Saturation Present?        Yes <input checked="checked" type="checkbox"/> No _____ (includes capillary fringe)	Depth (inches): _____ Depth (inches): <u>2</u> Depth (inches): <u>surface</u>	<b>Wetland Hydrology Present?</b> Yes <input checked="checked" type="checkbox"/> No _____
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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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-06-SP6  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S11 A NENE  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.241106 Long: -122.378355 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

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

**Remarks:**  
 Paired with WFI-06-SP5. Upland.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> 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	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	<u>Poa pratensis</u>	80%	Yes	FAC	
2.	<u>Trifolium repens</u>	20%	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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		0%			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFI-06-SP6
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features			Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	
0-2	10YR 2/2	100					L
2-14	10YR 4/2	100					GrL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<table style="width:100%;"> <tr> <td style="text-align: right;"><b>Hydric Soil Present?</b></td> <td style="text-align: center;">Yes <input type="checkbox"/></td> <td style="text-align: center;">No <input checked="" type="checkbox"/></td> </tr> </table>	<b>Hydric Soil Present?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<b>Hydric Soil Present?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		

**Remarks:**

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<b>HYDROLOGY</b>		
<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b> 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)	<table style="width:100%;"> <tr> <td style="text-align: right;"><b>Wetland Hydrology Present?</b></td> <td style="text-align: center;">Yes <input type="checkbox"/></td> <td style="text-align: center;">No <input checked="" type="checkbox"/></td> </tr> </table>	<b>Wetland Hydrology Present?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<b>Wetland Hydrology Present?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		

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

**Remarks:**

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-07-SP1  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S12 A NWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242606 Long: -122.377107 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): \_\_\_\_\_ Briscot loam \_\_\_\_\_ - 6A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 SP1 is the paired upland sample point with SP2 (wetland) for WFI-07. SP location is upon a recently graded and hydroseeded embankment along WSDOT ROW. It has erosion prone soils and therefore soil data was not taken.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>1=2m</u> )				
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		<u>0%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1=1m</u> )				
1. <u>Poa pratensis</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Trifolium repens</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>100%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>1=2m</u> )				
1. <u>none</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Project No.: 554-1800-030

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

**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 <sup>1</sup>	Loc <sup>2</sup>		

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

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

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

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

<b>Hydric Soil Present?</b>	Yes _____	No <u>  X  </u>
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**Remarks:**  
Soils have been disturbed and recently hydroseeded. They have a high erosion potential, thus soil data not taken and presumed not hydric due to lack of hydrology.

**HYDROLOGY**

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

**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)

<b>Wetland Hydrology Present?</b>	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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-07-SP2  
 Investigator(s): J. Wozniak Section, Township, Range: T20N R03E S12 A NWNW  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.242613 Long: -122.377157 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Briscot loam - 6A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 PEM Wetland SP, located in the WSDOT ROW portion of WFI-07. This site has recently been graded and hydroseeded.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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. _____					
5. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>1=2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>1=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Poa pratensis</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Trifolium repens</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>1=2m</u> )				
1. <u>none</u>					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>  <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input checked="" type="checkbox"/> Other (Explain in Remarks)  <sup>3</sup> 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)	

<p><b>Restrictive Layer (if present):</b>                  Type: _____                  Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>      Yes <input checked="" type="checkbox"/>      No _____</p>
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**Remarks:**  
 Soil data not taken due to the erosion prone soils and recent disturbance and hydroseeding. Hydric soils assumed based on hydrology.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<p><b>Primary Indicators (minimum of one required; check all that apply)</b></p> <input checked="" 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"/> Salt Crust (B11) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input checked="" 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"/> Sparsely Vegetated Concave Surface (B8)	<p><b>Secondary Indicators (2 or more required)</b></p> <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)
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<p><b>Field Observations:</b></p> Surface Water Present?      Yes <input checked="" type="checkbox"/> No _____      Depth (inches): <u>1</u> Water Table Present?      Yes <input checked="" type="checkbox"/> No _____      Depth (inches): <u>surface</u> Saturation Present?      Yes <input checked="" type="checkbox"/> No _____      Depth (inches): <u>surface</u> (includes capillary fringe)	<p><b>Wetland Hydrology Present?</b>      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 DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/17/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-07-SP3  
 Investigator(s): K. Moser, A. Thom, I. Lapina Section, Township, Range: T20N R03E S12 A NWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240947 Long: -122.376343 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): \_\_\_\_\_ Briscot loam \_\_\_\_\_ - 6A - \_\_\_\_\_ 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 This sample point is located along the west side of ditch on 4005 parcel. It's Cowardin class is PEM.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>1=2m</u> )				
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>1=1m</u> )				
1. <u>Holcus lanatus</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Poa pratensis</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Ranunculus repens</u>		<u>15%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Cerastium fontanum</u>		<u>2%</u>	<u>No</u>	<u>FACU</u>	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
107% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>1=2m</u> )				
1. <u>none</u>					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-3	10YR 3/2	100	none				CL	
3-5	10YR 3/2	95	7.5YR 4/4	5	C	M/PL	CL	
5-17	10YR 3/2	85	7.5YR 3/4	15	C	M/PL	SiCL	

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> X <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"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
	<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)

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input checked="" type="checkbox"/> No _____      Depth (inches): 11 Saturation Present?        Yes <input checked="" type="checkbox"/> No _____      Depth (inches): 7 (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
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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: TDLE City/County: Fife, Pierce County Sampling Date: 2/17/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFI-07-SP4**  
 Investigator(s): K. Moser, A. Thom, I. Lapina Section, Township, Range: T20N R03E S12 A NWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240960 Long: -122.376337 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): \_\_\_\_\_ Briscot loam \_\_\_\_\_ - 6A - \_\_\_\_\_ 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Sample point is the paired upland sample point with SP3 for WFI-07 and was dug upslope of the wetland.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>1=2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Poa pratensis</u>		90%	Yes	FAC	
2. <u>Ranunculus repens</u>		10%	No	FAC	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>1=2m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFI-07-SP4
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture
0-12	10YR 3/2	100					CL
12-18	10YR 3/2	90	10YR 3/4	10	C	M/PL	SiCL

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required: check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<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"/> 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)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
(includes capillary fringe)	
Depth (inches): <u>          </u>	
Depth (inches): <u>          </u>	
Depth (inches): <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: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-09-SP1  
 Investigator(s): J. Wozniak, P. Johnson Section, Township, Range: T20N R03E S11 L 1  
 Landform (hillslope, terrace, etc.): Stream bench terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240352 Long: -122.397679 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Tacoma silt loam - 43A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This SP samples PSS located on east bank of Puyallup River on low stream bench. Sample point located south of I-5 bridge.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>						<b>Prevalence Index worksheet:</b> 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>
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>		60%	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>	
2. <u>Spiraea douglasii</u>		10%	No	FACW		
3. <u>      </u>						
4. <u>      </u>						
5. <u>      </u>						
		70% = Total Cover				
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )					
1. <u>Equisetum hyemale</u>		20%	Yes	FACW		
2. <u>Phalaris arundinacea</u>		20%	Yes	FACW		
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				
<b>% Bare Ground in Herb Stratum</b>		<u>60%</u>				

**Remarks:**  
 Bare ground is fresh alluvium.

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-10	10YR 3/2	95	10YR 4/6	5	C	M, CS	LSa	
10-18	10YR 3/2	80	10YR 4/1	5	D	M	LSa	soil inclusion
			10YR 4/4	15	C	CS		

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<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 checked="" 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 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"/> Other (Explain in Remarks)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Yes <input type="checkbox"/> X <input checked="" type="checkbox"/> No <input type="checkbox"/>
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)	

**Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:**  
Puyallup River Gauge (USGS Gauge 12101500) data indicates frequent inundation of this area.

**Remarks:**

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-09-SP2  
 Investigator(s): J. Wozniak, P. Johnson Section, Township, Range: T20N R03E S11 L 1  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.240363 Long: -122.397636 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Tacoma silt loam - 43A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point located on east bank of Puyallup River, above WFI-09-SP1, on a levee.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		90%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		90% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Poa pratensis</u>		40%	Yes	FAC	
2. <u>Phalaris arundinacea</u>		20%	Yes	FACW	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		60% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>40%</u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFI-09-SP2
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-6	10YR 2/1	100					Rocky L
6+							Rock
							rock and quarry spalls

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<table border="0" style="width:100%;"> <tr> <td style="text-align: right;"><b>Hydric Soil Present?</b></td> <td style="text-align: center;">Yes _____</td> <td style="text-align: center;">No <u>  </u> <b>X</b> _____</td> </tr> </table>	<b>Hydric Soil Present?</b>	Yes _____	No <u>  </u> <b>X</b> _____
<b>Hydric Soil Present?</b>	Yes _____	No <u>  </u> <b>X</b> _____		

**Remarks:**  
Soils assumed to be non-hydric due to landscape position on the levee and lack of hydrology.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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 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)		

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <u>  </u> <b>X</b> _____    Depth (inches): _____ Water Table Present?    Yes _____ No <u>  </u> <b>X</b> _____    Depth (inches): _____ Saturation Present?    Yes _____ No <u>  </u> <b>X</b> _____    Depth (inches): _____ (includes capillary fringe)	<table border="0" style="width:100%;"> <tr> <td style="text-align: right;"><b>Wetland Hydrology Present?</b></td> <td style="text-align: center;">Yes _____</td> <td style="text-align: center;">No <u>  </u> <b>X</b> _____</td> </tr> </table>	<b>Wetland Hydrology Present?</b>	Yes _____	No <u>  </u> <b>X</b> _____
<b>Wetland Hydrology Present?</b>	Yes _____	No <u>  </u> <b>X</b> _____		

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

**Remarks:**  
Lacks primary and secondary indicators except FAC neutral



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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFI-12-SP1**  
 Investigator(s): K. Moser, A. Thom Section, Township, Range: T20N R04E S06 A SESW  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.244946 Long: -122.350305 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   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 <u>  X  </u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is located within the center of the parcel. This is an PEM wetland sample point.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>
1.	<u>none</u>			
2.				
3.				
4.				
		0% = Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>1=2m</u> )			
1.	<u>Rubus armeniacus</u>	<u>3%</u>	<u>Yes</u>	<u>FAC</u>
2.				
3.				
4.				
5.				
		3% = Total Cover		
<u>Herb Stratum</u>	(Plot size: <u>1=1m</u> )			
1.	<u>Schedonorus arundinaceus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Poa pratensis</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>
3.	<u>Holcus lanatus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		100% = Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: <u>1=2m</u> )			
1.	<u>none</u>			
2.				
		0% = Total Cover		
<b>% Bare Ground in Herb Stratum</b>		<u>20%</u>		

<b>Dominance Test worksheet:</b>	
Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</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>100%</u> (A/B)
<b>Prevalence Index worksheet:</b>	
Total % Cover of:	Multiply by:
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>	

**Hydrophytic Vegetation Indicators:**

       1 - Rapid Test for Hydrophytic Vegetation

  X   2 - Dominance Test is >50%

       3 - Prevalence Index is ≤3.0<sup>1</sup>

       4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

       5 - Wetland Non-Vascular Plants<sup>1</sup>

       Problematic Hydrophytic Vegetation (Explain)<sup>1</sup>

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present.

<b>Hydrophytic Vegetation Present?</b>	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				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/2	100	none				SiCL	
10-14	10YR 5/1	70	7.5YR 4/6	30	C	M	SiCL	
14-16	10YR 4/1	80	10YR 4/6	20	C	M	SaL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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 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)	

2 cm Muck (A10)  
 Red Parent Material (TF2)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

<sup>3</sup>Indicators 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:**

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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 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): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): 15 _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): 14 _____	

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

**Remarks:**  
 Wetland hydrology assumed, supported by hydrophytic vegetation and strong hydric soils. Wetlands in the area appear to be tidally influenced. Biologists observed water table fluctuations in real time that corresponded with tidal fluctuations that were crossed checked in tide charts. This was observed within soils pits in wetlands not connected by surface water. We're assuming that this is result of change in pressure head from tidal influences in the aquifer. Therefore, wetland hydrology is assumed to be present, despite observations of saturation below a 12-inch depth.

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

Project/Site: TDLE City/County: Fife, Pierce County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFI-12-SP2  
 Investigator(s): K. Moser, A. Thom Section, Township, Range: T20N R04E S06 A SESW  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.245082 Long: -122.350588 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam - 42A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   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 <u>  X  </u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is the located near ditch feature along west end of property.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>1=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>1=1m</u> )				
1. <u>Schedonorus arundinaceus</u>		60%	Yes	FAC	
2. <u>Poa pratensis</u>		40%	Yes	FAC	
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>					
100% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>1=2m</u> )				
1. <u>none</u>					
2. <u>      </u>					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>1</sup>	Loc <sup>2</sup>		
0-11	10YR 2/2	100					SiCL	
11-14	10YR 4/3	85	10YR 4/6	15			SiCL	
14-16	10YR 4/1	98	10YR 4/6	2			SaL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: none _____ Depth (inches): n/a _____	<b>Hydric Soil Present?</b> Yes _____      No <u>  X  </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP1  
 Investigators: DANIELSKI, STORY Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.299740 Long: -122.304298 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 On low bank of Hylebos creek, looks like possible wet spot. The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Sample plot has 3 of 3 wetland criteria, is located in forested portion of WFW-1.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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>Fraxinus latifolia</u>	<u>60</u>	<u>Yes</u>	<u>FACW</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>60</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>123</u> x2= <u>246</u> FAC species <u>35</u> x3= <u>105</u> FACU species <u>20</u> x4= <u>80</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>178</u> (A) <u>431</u> (B)  <i>Prevalence Index = B/A= 2.42</i>
1. <u>Oemleria cerasiformis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Acer circinatum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
3. <u>Cornus sericia</u>	<u>3</u>	<u>No</u>	<u>FACW</u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>28</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>	<u>30</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>	
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>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>10</u>	<u>    </u>	<u>% Cover of Biotic Crust</u>	<u>    </u>	

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-1-SP1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-16	7.5YR 2.5/1	100					Sandy Loam	
16-18	10YR 4/1	98	7.5 YR 4/6	2	C	M	Sandy Loam	Very gravelly from 10-18+

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:  
Sample plot meets hydric soil indicator A12, thick dark surface.

**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) (MRLA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

Remarks:  
Sample plot located in forested area. No primary indicators observed, roughly 6 feet from OHWM of Hylebos Creek. Sample plot meets secondary hydrology indicators for FAC-Neutral Test (D5) and Geomorphic Position (D2).

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP2  
 Investigators: DANIELSKI, STORY Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.299721 Long: -122.304062 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Located in depression adjacent to East Fork Hylebos Creek. Sample Plot has 3 of 3 wetland criteria, is located in forested portion of WFW-1.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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>Fraxinus latifolia</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Alnus rubra</u>	<u>15</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>55</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: <u>    </u> OBL species <u>30</u> x1= <u>30</u> FACW species <u>40</u> x2= <u>80</u> FAC species <u>83</u> x3= <u>249</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>153</u> (A) <u>359</u> (B)
1. <u>Acer circinatum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus spectabilis</u>	<u>5</u>	<u>No</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>35</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)				Prevalence Index = B/A = <u>2.35</u> <b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> X 2 - Dominance Test is >50% <u>    </u> X 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) <u>    </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <u>    </u> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Ranunculus repens</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Carex obnupta</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Urtica dioica</u>	<u>3</u>	<u>No</u>	<u>FAC</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>63</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>37</u>		% Cover of Biotic Crust <u>    </u>		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-1-SP2

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-22	10YR 2/1	100					Silt Loam	
22-24	2.5Y 4/2	95	2.5Y 4/4	5	C	M	Silty Clay Loam	Lots of cobble/gravel

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

**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 MLRLA 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)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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)

<sup>3</sup>Indicators 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

**Remarks:**

Sample plot meets hydric soil indicator A12, Thick Dark Surface.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	

Secondary Indicators (2 or more required)

<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<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) ( <b>LRR A</b> )
<input type="checkbox"/> Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

No primary indicators observed. Sample plot meets secondary hydrology indicators for FAC-Neutral Test (D5) and Geomorphic Position (D2).



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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP3  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 2  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.299992 Long: -122.303947 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot has 0 of 3 wetland criteria, is not located in a wetland. Paired upland plot for WFW-1. The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>20</u> (A/B)
1. <u>Acer macrophyllum</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Pseudotsuga menziesii</u>	<u>30</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>	
	<u>65</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>    </u> x2= <u>0</u> FAC species <u>35</u> x3= <u>105</u> FACU species <u>145</u> x4= <u>580</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>180</u> (A) <u>685</u> (B)  <i>Prevalence Index = B/A= 3.81</i>
1. <u>Rubus ursinus</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Gaultheria shallon</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Acer circinatum</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Rubus spectabilis</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
5. <u>Acer macrophyllum</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
	<u>115</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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>    </u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>    </u> X <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>60</u>		% Cover of Biotic Crust <u>    </u>		

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-1-SP3

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/3	100					Silt Loam	
8-18	10YR 4/4	100					Silt Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No  X

**Remarks:**

Sample plot lacks hydric soil indicators. Soil is very dry, very bright.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**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 Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No primary or secondary indicators observed, dry to 18+.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP4  
 Investigators: Danielski Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0  
 Subregion (LRR): A Lat: 47.299290 Long: -122.304367 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PEM1

Are climatic / hydrologic conditions on the site typical for 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 a site map showing sampling point locations, transects, important features, etc.**

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

Remarks:  
 Sample plot has 3 of 3 wetland criteria, is located in PEM community in WFW-1. The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species x1= _____ FACW species <u>92</u> x2= <u>184</u> FAC species <u>25</u> x3= <u>75</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>117</u> (A) <u>259</u> (B)
1. <u>Salix lasiandra</u>	<u>2</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>2</u>	= Total Cover		
<u>Herb Stratum</u> (Plot size: 1m)				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Athyrium cyclosorum</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. <u>Ranunculus repens</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. <u>Solanum dulcamara</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. <u>Urtica dioica</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	<u>115</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-1-SP4

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-11	7.5 YR 2/2	100					Sandy Loam	
11-20	7.5 YR 2/2	95	5YR 4/6	5	C	M	Sandy Loam	Gravelly

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:  
Sample plot nearly meets indicator for F6, Redox Dark Surface. Dark surface layers may have redox that is difficult to see. Given presence of hydrophytic vegetation and geomorphic position below OHWM of East Fork Hylebos Creek, soil is likely seasonally flooded for 14 or more consecutive days during the growing season, and therefore hydric soils presumed to exist.

**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) (MRLA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) (except MRLA 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  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

Remarks:  
Damp at 20 but no saturation or water table. Secondary indicators Geomorphic Position (D2) and FAC-Neutral Test (D5) present. Below OHWM of Hylebos Creek. Sampling occurred at end of dry season/beginning of water year, before full groundwater recharge.  
Subsequent visit on 10/18 showed sample plot under several inches of water. Is likely seasonally ponded.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP5  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 3  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.299271 Long: -122.304420 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Slightly upslope from wetland boundary and channel of Hylebos Creek. Sample plot has 0 of 3 wetland indicators, is not located in a wetland. Paired upland plot for WFW-1 The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</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>50</u> (A/B)
1. <u>Thuja plicata</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Pseudotsuga menziesii</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Alnus rubra</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Prunus emarginata</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
	<u>75</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>65</u> Multiply by: OBL species <u>      </u> x1= <u>      </u> FACW species <u>      </u> x2= <u>0</u> FAC species <u>65</u> x3= <u>195</u> FACU species <u>132</u> x4= <u>528</u> UPL species <u>      </u> x5= <u>0</u> Column Totals: <u>197</u> (A) <u>723</u> (B)  <i>Prevalence Index = B/A= 3.67</i>
1. <u>Rubus ursinus</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Acer circinatum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Sambucus racemosa</u>	<u>7</u>	<u>No</u>	<u>FACU</u>	
4. <u>Oemleria cerasiformis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
	<u>92</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Polystichum munitum</u>	<u>30</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>30</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>      </u> X <u>      </u>
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
	<u>      </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust <u>      </u>		

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-1-SP5

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-18	7.5YR 3/3	100					Silt Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<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 MLRLA 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)	

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

<p><b>Restrictive Layer (if present):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>    Yes _____ No _____ X _____</p>
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Remarks:  
Sample plot lacks indicators of hydric soil.

**HYDROLOGY**

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

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

Remarks:  
No primary or secondary wetland hydrology indicators observed.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP6  
 Investigators: DANIELSKI, STORY Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.296963 Long: -122.304909 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Sample plot meets 3 of 3 wetland criteria, is located in WFW-1.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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>Populus balsamifera</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Salix scouleriana</u>	<u>5</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>25</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>97</u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>    </u> x2= <u>0</u> FAC species <u>97</u> x3= <u>291</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>97</u> (A) <u>291</u> (B)  <i>Prevalence Index = B/A= 3.00</i>
1. <u>Rubus armeniacus</u>	<u>12</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Acer circinatum</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Crataegus monogyna</u>	<u>3</u>	<u>No</u>	<u>FAC</u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>20</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Agrostis stolonifera</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Ranunculus repens</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. <u>Solanum dulcamara</u>	<u>2</u>	<u>No</u>	<u>FAC</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>52</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>48</u>		% Cover of Biotic Crust <u>    </u>		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-1-SP6

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 2/1	93	10YR 3/4	7	C	M	Silt Loam	Lot of gravel in profile starting at 14

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Sample plot meets hydric soil indicator F6, Redox Dark Surface.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input checked="" type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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 checked="" 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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

Sample plot has primary hydrology indicators for water marks on nearby trees, and secondary indicators for water stained leaves and geomorphic position. A site visit on 10/18 had 6 inches of surface water in the area near the sample plot.



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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP7  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Convex Slope(%): 40  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.296970 Long: -122.304825 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If No, explain in Remarks)  
 Are Vegetation:        Soil X or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot meets 0 of 3 wetland criteria, is not located in a wetland. Paired upland plot for WFW-1. The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Sample plot located on fill slope.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				
1. <u>Rubus armeniacus</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 1m)				
1. <u>Polystichum munitum</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>80</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**Hydrophytic Vegetation Present?** Yes        No X

**SOIL**

Sampling Point: WFW-1-SP7

**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 <sup>1</sup>	Loc <sup>2</sup>		

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No  X

Remarks:  
 Cobble fill pad, no soil.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<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) ( <b>LRR A</b> )
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	<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 \_\_\_\_\_ 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No primary or secondary hydrology indicators observed.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/10/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-1-SP8  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.297585 Long: -122.305229 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Sample plot has 3 of 3 wetland criteria, is located in a wetland.

### VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot size: 5m)				<b>Dominance Test Worksheet:</b>
1. <u>Fraxinus latifolia</u>	20	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
2. <u>Populus balsamifera</u>	15	Yes	FAC	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
	35	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b>
1. <u>Acer circinatum</u>	25	Yes	FAC	<u>Total % Cover of:</u> <u>Multiply by:</u>
2. <u>Salix lasiandra</u>	20	Yes	FACW	OBL species                      35    x1=                      35
3. <u>Rubus spectabilis</u>	7	No	FAC	FACW species                      40    x2=                      80
4. _____				FAC species                      102    x3=                      306
5. _____				FACU species                                           x4=                      0
	52	= Total Cover		UPL species                                           x5=                      0
<u>Herb Stratum</u> (Plot size: 1m)				Column Totals: <u>177</u> (A) <u>421</u> (B)
1. <u>Ranunculus repens</u>	55	Yes	FAC	<i>Prevalence Index = B/A=</i> 2.38
2. <u>Carex obnupta</u>	30	Yes	OBL	<b>Hydrophytic Vegetation Indicators:</b>
3. <u>Oenanthe sarmentosa</u>	5	No	OBL	_____ 1 - Rapid Test for Hydrophytic Vegetation
4. _____				<u>X</u> 2 - Dominance Test is >50%
5. _____				<u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
6. _____				_____ 4 - Morphological Adaptations <sup>1</sup> (Provide
7. _____				data in Remarks or on a separate sheet)
8. _____				_____ 5 - Wetland Non-Vascular Plants <sup>1</sup>
9. _____				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology
11. _____				must be present, unless disturbed or problematic.
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b>
1. _____				Yes <u>X</u> No _____
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-1-SP8

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 2/1	100					Silt Loam	
14-20	10YR 3/2	95	10YR 3/4	5	C	M	Silty Clay Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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 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)	<sup>3</sup> 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: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:  
 Sample plot nearly meets redox dark surface. Given presence of water marks in the area and presence of hydrophytic vegetation, it is assumed that the area is inundated for 14 or more consecutive days during growing season and therefore hydric soil is present.

**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) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	
<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) ( <b>LRR A</b> )	
<input type="checkbox"/> Other (Explain in Remarks)	

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_ 16.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

Remarks:  
 Saturated at 16. Sample plot meets primary hydrology indicator for water marks and secondary hydrology indicator for FAC-neutral test. Although October is technically during the wet season, in a forested depression wetland, groundwater has not yet recharged. Water marks indicate area around sample plot is inundated at least occasionally.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/18/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-3-SP1  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Floodplain Local Relief (concave, convex, none): None Slope(%): 2  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.296341 Long: -122.305145 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 On bench above E. Hylebos Creek. Conditions wetter than normal for time of year. Sample plot has 3 of 3 criteria, is located within WFW-3.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. <u>Fraxinus latifolia</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>	Number of Dominant Species	
2. <u>Alnus rubra</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: <u>4</u> (A)	
3. <u>    </u>				Total Number of Dominant	
4. <u>    </u>				Species Across All Strata: <u>6</u> (B)	
	<u>70</u>	<u>= Total Cover</u>		Percent of Dominant Species	
				That Are OBL, FACW, or FAC: <u>67</u> (A/B)	
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b>	
1. <u>Rubus armeniacus</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	<u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u>	
2. <u>Rubus spectabilis</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	OBL species	<u>x1=</u> <u>    </u>
3. <u>Oemleria cerasiformis</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	FACW species	<u>60 x2= 120</u>
4. <u>Rubus ursinus</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	FAC species	<u>48 x3= 144</u>
5. <u>    </u>				FACU species	<u>18 x4= 72</u>
	<u>48</u>	<u>= Total Cover</u>		UPL species	<u>x5= 0</u>
				Column Totals:	<u>126</u> (A) <u>336</u> (B)
				<u>Prevalence Index = B/A= 2.67</u>	
<u>Herb Stratum</u> (Plot size: 1m)				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Hedera helix</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	<u>1 - Rapid Test for Hydrophytic Vegetation</u>	
2. <u>Ranunculus repens</u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>	<u>X 2 - Dominance Test is &gt;50%</u>	
3. <u>    </u>				<u>X 3 - Prevalence Index is ≤3.0<sup>1</sup></u>	
4. <u>    </u>				<u>4 - Morphological Adaptations<sup>1</sup> (Provide</u>	
5. <u>    </u>				<u>data in Remarks or on a separate sheet)</u>	
6. <u>    </u>				<u>5 - Wetland Non-Vascular Plants<sup>1</sup></u>	
7. <u>    </u>				<u>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</u>	
8. <u>    </u>				<u><sup>1</sup>Indicators of hydric soil and wetland hydrology</u>	
9. <u>    </u>				<u>must be present, unless disturbed or problematic.</u>	
10. <u>    </u>					
11. <u>    </u>					
	<u>8</u>	<u>= Total Cover</u>			
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b>	
1. <u>    </u>				Yes	<u>X</u> No <u>    </u>
2. <u>    </u>					
<u>% Bare Ground in Herb Stratum</u>	<u>89</u>		<u>% Cover of Biotic Crust</u>		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-3-SP1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-14	10 YR 3/2	95	10YR 4/6	5	C	M	Silt Loam	
14-18	10YR 4/2	98	10YR 5/4	2	C	M	Sandy Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Lots of gravel. Sample plot meets hydric soil indicator F6, Redox Dark Surface.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_ 12.0  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_ 9.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

Sample plot meets primary hydrology indicators for saturation and high water table.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/18/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-3-SP2  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): None Slope(%): 3  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.296326 Long: -122.305130 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If No, explain in Remarks)  
 Are Vegetation:        Soil X or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Soil disturbed from adjacent fill. Conditions wetter than normal for time of year. Sample plot has 1 of 3 wetland criteria, is not located in a wetland.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				
1. <u>Rubus armeniacus</u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Acer circinatum</u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Oemleria cerasiformis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. <u>Rubus ursinus</u>	<u>4</u>	<u>No</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
= Total Cover				
<u>94</u>				
<u>Herb Stratum</u> (Plot size: 1m)				
1. <u>Polystichum munitum</u>	<u>7</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				
<u>7</u>				
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
<u>89</u>				
% Bare Ground in Herb Stratum <u>89</u>			% Cover of Biotic Crust _____	

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide data in Remarks or on a separate sheet)  
 5 - Wetland Non-Vascular Plants<sup>1</sup>  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

Remarks:  
 Sample plot meets dominance test but not prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-3-SP2

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/2	100					Loamy Sand	
7-18	2.5Y 4/3	100					Loamy Sand	Significant gravel and cobble

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No  X

Remarks:

Sample plot lacks hydric soil indicators.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**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 Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No primary or secondary wetland hydrology indicators observed.



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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/18/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-4-SP1  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.295021 Long: -122.305908 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for 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 a site map showing sampling point locations, transects, important features, etc.

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

Remarks:  
 Conditions wetter than normal for time of year. Sample plot meets 3 of 3 wetland criteria, is located in WFW-4.

## VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 5m)				<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100</u> (A/B)  <b>Prevalence Index worksheet:</b> Total % Cover of:                      Multiply by: OBL species                      25    x1=                      25 FACW species                      90    x2=                      180 FAC species                      30    x3=                      90 FACU species                                           x4=                      0 UPL species                                           x5=                      0 Column Totals: <u>145</u> (A) <u>295</u> (B)  $Prevalence Index = B/A =$ <u>2.03</u>
1. <u>Fraxinus latifolia</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Populus balsamifera</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Salix lasiandra</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
4. _____				
	<u>80</u>	<u>= Total Cover</u>		
<b>Sapling/Shrub Stratum</b> (Plot size: 3m)				
1. <u>Spiraea douglasii</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>40</u>	<u>= Total Cover</u>		
<b>Herb Stratum</b> (Plot size: 1m)				
1. <u>Carex obnupta</u>	<u>25</u>	<u>Yes</u>	<u>OBL</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	<u>25</u>	<u>= Total Cover</u>		
<b>Woody Vine Stratum</b> (Plot size: )				
1. _____				
2. _____				
		<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>75</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 X 2 - Dominance Test is >50%  
 X 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide data in Remarks or on a separate sheet)  
 5 - Wetland Non-Vascular Plants<sup>1</sup>  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

**SOIL**

Sampling Point: WFW-4-SP1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 2/1	97	10YR 3/3	3	C	M	Silt Loam	High organic content

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Sample plot meets hydric soil indicator F6, Redox Dark Surface.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_ 0.0  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_ 0.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

Surface water elsewhere in wetland. Sample plot meets primary hydrology indicators for High Water Table (A2) and Saturation (A3). Sample plot also passes FAC-Neutral Test (D5).

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/18/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW4-SP2  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest Lat: 47.295021 Long: -122.305908 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology.. Sample plot is paired upland plot for WFW-4, located on fill pad adjacent to WFW-4. Sample plot has 1 of 3 indicators, is not located in a wetland.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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>    </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>	
	<u>    </u>	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				
1. <u>Rubus armeniacus</u>	<u>35</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>35</u>	= Total Cover		
<u>Herb Stratum</u> (Plot size: 1m)				
1. <u>Ranunculus repens</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Polystichum munitum</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>	
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>35</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	= Total Cover		
% Bare Ground in Herb Stratum <u>65</u>		% Cover of Biotic Crust <u>    </u>		

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 X 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide data in Remarks or on a separate sheet)  
 5 - Wetland Non-Vascular Plants<sup>1</sup>  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No     

Remarks:  
 Sample plot meets dominance test for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-4-SP2

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-4	2.5Y 4/2	99	2.5Y 3/4	1	C	M	Sandy Loam	Refusal at 4; lots of cobble

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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):**  
 Type: Cobble  
 Depth (inches): 4

**Hydric Soil Present?** Yes  No

Remarks:  
 Sample plot lacks hydric soil indicators. Refusal at 4 inches due to cobble. Located on fill pad with minimal soil development. Soil color likely comes from color of parent material (fill pad) and is not caused by weathering or depletion.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**  
 Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

Remarks:  
 No primary or secondary hydrology indicators observed.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/23/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-5-SP1  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Channel Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.291679 Long: -122.307571 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Sample plot meets 3 of 3 wetland criteria, is located in WFW-5.

### VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot size: 5m)				<b>Dominance Test Worksheet:</b>
1. <u>Populus balsamifera</u>	15	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
2. <u>Frangula purshiana</u>	5	Yes	FAC	Total Number of Dominant Species Across All Strata: <u>7</u> (B)
3. <u>                                    </u>				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>86</u> (A/B)
4. <u>                                    </u>				
	20	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b>
1. <u>Symphoricarpos albus</u>	60	Yes	FACU	<u>Total % Cover of:</u> <u>                    </u> <u>Multiply by:</u>
2. <u>Lonicera involucrata</u>	30	Yes	FAC	OBL species <u>                    </u> x1= <u>                    </u>
3. <u>Spiraea douglasii</u>	30	Yes	FACW	FACW species <u>30</u> x2= <u>60</u>
4. <u>Rubus spectabilis</u>	20	No	FAC	FAC species <u>85</u> x3= <u>255</u>
5. <u>Rubus ursinus</u>	10	No	FACU	FACU species <u>70</u> x4= <u>280</u>
	150	= Total Cover		UPL species <u>                    </u> x5= <u>0</u>
<u>Herb Stratum</u> (Plot size: 1m)				Column Totals: <u>185</u> (A) <u>595</u> (B)
1. <u>Ranunculus repens</u>	10	Yes	FAC	$Prevalence\ Index = B/A = \underline{\quad 3.22}$
2. <u>Athyrium cyclosorum</u>	5	Yes	FAC	
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>				
	15	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>                                    </u>				<u>    </u> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>                                    </u>				<u>X</u> 2 - Dominance Test is >50%
				<u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
				<u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet)
				<u>    </u> 5 - Wetland Non-Vascular Plants <sup>1</sup>
				<u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum <u>85</u>			% Cover of Biotic Crust <u>                    </u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>

Remarks:  
 Sample plot meets dominance test but not prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-5-SP1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 2/1	100					Silt Loam	
14-18	10YR 4/2	95	10YR 4/4	5	C	M	Sandy Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Sample plot meets hydric soil indicator A12, Thick Dark Surface.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_ 2.00  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_ 0.0  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_ 0.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

Sample plot meets primary hydrology indicators for Surface Water (A1), High Water Table (A2), and Saturation (A3).

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/23/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-5-SP2  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Convex Slope(%): 2  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.291729 Long: -122.307503 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for 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 a site map showing sampling point locations, transects, important features, etc.**

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

Remarks:  
 At toe of slope, just upslope from edge of wetland WFW-5. Located in relatively mature upland forest. The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Sample plot has 0 of 3 criteria, is not located in a wetland.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>20</u> (A/B)
1. <u>Thuja plicata</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Pseudotsuga menziesii</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Populus balsamifera</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
	<u>70</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>40</u> x3= <u>120</u> FACU species <u>137</u> x4= <u>548</u> UPL species _____ x5= <u>0</u> Column Totals: <u>177</u> (A) <u>668</u> (B)  <i>Prevalence Index = B/A= <u>3.77</u></i>
1. <u>Gaultheria shallon</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Rubus ursinus</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Holodiscus discolor</u>	<u>7</u>	<u>No</u>	<u>FACU</u>	
4. <u>Oemleria cerasiformis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
	<u>92</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Polystichum munitum</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	<u>15</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>45</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-5-SP2

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-18	7.5YR 3/4	100					Sandy Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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)	

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No _____ <b>X</b>
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Remarks:  
Sample plot lacks hydric soil indicators.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		

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

Remarks:  
No primary or secondary indicators observed.



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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/23/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-6-SP1  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Channel Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.297321 Long: -122.304733 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Swale feature likely associated with construction of I-5. Conveys stormwater runoff from multiple culverts. Conditions wetter than normal for time of year. Sample plot has 3 of 3 criteria, is located in a WFW-6.

## VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 5m)				<b>Dominance Test Worksheet:</b> 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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>90</u> x3= <u>270</u> FACU species <u>33</u> x4= <u>132</u> UPL species _____ x5= <u>0</u> Column Totals: <u>123</u> (A) <u>402</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.27</u>
1. <u>Rubus spectabilis</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus ursinus</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Oemleria cerasiformis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<b>Herb Stratum</b> (Plot size: 1m)				
1. <u>Tolmiea menziesii</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Athyrium cyclosorum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Polystichum munitum</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. <u>Geranium robertianum</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				
<b>Woody Vine Stratum</b> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>12</u>	% Cover of Biotic Crust _____			

Remarks:  
 Sample plot meets dominance test but not prevalence index for hydrophytic vegetation.

**Hydrophytic Vegetation Present?** Yes X No

**SOIL**

Sampling Point: WFW-6-SP1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/2	95	10YR 4/6	5	C	M	Sandy Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: Quarry spall  
 Depth (inches): 16

**Hydric Soil Present?** Yes  No

**Remarks:**

Impenetrable restrictive layer at 16 inches. Sample plot meets hydric soil indicator F6, Redox Dark Surface.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 0.50  
 Water Table Present? Yes  No  Depth (inches): 0.0  
 Saturation Present? Yes  No  Depth (inches): 0.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

Sample plot meets primary hydrology indicators for surface water, high water table, and saturation.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/23/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-6-SP2  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Convex Slope(%): 0  
 Subregion (LRR): A Lat: 47.297447 Long: -122.304787 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology. Sample plot has 0 of 3 wetland criteria, is not located in a wetland. Paired upland plot for WFW-5.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</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>0</u> (A/B)
1. <u>Pseudotsuga menziesii</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>35</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>30</u> x3= <u>90</u> FACU species <u>84</u> x4= <u>336</u> UPL species _____ x5= <u>0</u> Column Totals: <u>114</u> (A) <u>426</u> (B)  <i>Prevalence Index = B/A= <u>3.74</u></i>
1. <u>Rubus ursinus</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Acer circinatum</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. <u>Rubus armeniacus</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. <u>Thuja plicata</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
5. <u>Acer macrophyllum</u>	<u>7</u>	<u>No</u>	<u>FACU</u>	
	<u>79</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>      </u> X <u>      </u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>100</u>	<u>100</u>	<u>% Cover of Biotic Crust</u>	_____	

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-6-SP2

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/3	100					Silt Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No  X

Remarks:

Sample plot lacks hydric soil indicators.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**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 Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No primary or secondary indicators of wetland hydrology observed.

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/6/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-07-SP1  
 Investigator(s): Steve Krueger, Aaron Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): stream bench Local relief (concave, convex, none): convex Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.309896 Long: -122.302392 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 0 to 6 percent slopes - AmB - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit.

**Remarks:**  
 PEM wetland SP for WFW-07 below ordinary high water line (OHWL) of E. Fork Hylebos Creek along stream bench near OHWL LB-11. The stream has been heavily modified and is adjacent to a golf course. Soil deposition occurred on top of the decaying grass, further evidence of its recent deposition.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1m radius</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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% = Total Cover</u>					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>1m radius</u> )				
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>					
<u>1% = Total Cover</u>					
<u>Herb Stratum</u>	(Plot size: <u>1m radius</u> )				
1. <u>Phalaris arundinacea</u>		<u>95%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>		<u>3%</u>	<u>No</u>	<u>FAC</u>	
3. <u>Equisetum telmateia</u>		<u>2%</u>	<u>No</u>	<u>FACW</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% = Total Cover</u>					
<u>Woody Vine Stratum</u>	(Plot size: <u>1m radius</u> )				
1. <u>none</u>		<u>0%</u>			
2. <u>        </u>					
<u>0% = Total Cover</u>					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-4	10YR 2/2	100					L	
4-7	2.5Y 3/1	100					L	
7-9	5Y 4/1	100					SaL	decaying grass
9-20	10YR 4/1	100					CL	

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

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input checked="" type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b>      Yes <input checked="" type="checkbox"/>      No <input type="checkbox"/></p>
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**Remarks:**  
 Soils almost meet indicators F3 and A12, but lack redox features. Assumed to be hydric because it is a fluvial entisol with aquic moisture regime due to its position below the OHWL in the floodplain. Soil deposition from stream evident as decaying reed canarygrass only detected in layer 7-9 inches below ground surface. The deposition occurred on top of the decaying grass, further evidence of its recent deposition. Water inputs are low velocity from groundwater, stormwater pipes and runoff and do not show other deposition aside from soil buildup. Fluvial entisol may explain lack of hydric soil indicators. Strong hydrophytic vegetation and wetland hydrology support determination of wetland.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input checked="" type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input checked="" type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 checked="" 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><b>Field Observations:</b></p> <p>Surface Water Present?    Yes <input type="checkbox"/>    No <input checked="" type="checkbox"/>    Depth (inches): <u>          </u></p> <p>Water Table Present?    Yes <input checked="" type="checkbox"/>    No <input type="checkbox"/>    Depth (inches): <u>12</u></p> <p>Saturation Present?    Yes <input checked="" type="checkbox"/>    No <input type="checkbox"/>    Depth (inches): <u>11</u></p> <p>(includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>      Yes <input checked="" type="checkbox"/>      No <input type="checkbox"/></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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/6/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-07-SP2  
 Investigator(s): Steve Kruger, Aaron Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.309893 Long: -122.302418 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 0 to 6 percent slope - AmB - 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station. Precipitation was above the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland SP for WFW-07 paired with WFW-07-SP1. SP is ~4m east and upslope of East Fork Hylebos Creek and 2m east of WFW-07-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1m radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (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>1m radius</u> )				
1. <u>Ilex aquifolium</u>		<u>12%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Rubus armeniacus</u>		<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
		17% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1m radius</u> )				
1. <u>Equisetum telmateia</u>		<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		80% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>1m radius</u> )				
1. <u>none</u>		<u>0%</u>			
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	10YR 3/2	100					L	
7-20	10YR 5/3	100					GSaL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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"/> 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)	

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/16/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-07-SP3  
 Investigator(s): Steve Krueger, Aaron Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.310171 Long: -122.302239 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): arents, Alderwood material, 0 to 6 percent slope: - AmB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation X, 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station. Precipitation was above the normal range for the three months prior to the site visit.

**Remarks:**  
 PSS SP for WFW-07. Located near pedestrian bridge ~2m east and upslope of E. Fork Hylebos Creek Tributary 0016A. The stream has been heavily modified and is adjacent to a golf course.  
 Vegetation within the wetland and also adjacent upland is dominated by the aggressive species, English ivy (*Hedera helix*), which would be considered problematic vegetation. Hydric soil indicators and hydrology indicators are both strong, supporting the assumption that vegetation is also hydric.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
5. _____					
<u>0% = Total Cover</u>					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix sitchensis</u>		<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Rubus armeniacus</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
<u>85% = Total Cover</u>					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Equisetum telmateia</u>		<u>5%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<u>5% = Total Cover</u>					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Hedera helix</u>		<u>95%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____					
<u>95% = Total Cover</u>					
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**  
 Vegetation within the wetland and also adjacent upland is dominated by the aggressive species, English ivy (*Hedera helix*), which would be considered problematic vegetation. Hydric soil indicators and hydrology indicators are both strong, supporting the assumption that vegetation is also hydric.



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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	10YR 3/2	100					SaL	
7-17	10YR 4/2	90	10YR 5/6	10	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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 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 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)	

<b>Field Observations:</b> 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>16</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>11</u>	<b>Wetland Hydrology Present?</b> 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:**  
 Hydrology check conducted on 03/02/2020: soils saturated to the surface, ground water table at 3 inches. Signs of riverine hydrology in immediate vicinity include drift deposits and sediment deposits.

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/6/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-07-SP4**  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.310178 Long: -122.302193 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 0 to 6 percent slope: - AmB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x No \_\_\_\_\_  
 Are Vegetation X, 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit.

**Remarks:**  
 upland SP for WFW-07. Near OHWM flag EH-RB11. East of WFW-07-SP3. Vegetation is naturally problematic due to presence of aggressive species, English ivy and Himalayan blackberry, dominate this area.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u>Pseudotsuga menziesii</u>	<u>40%</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>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
40% = Total Cover					Total % Cover of: _____ Multiply by: _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )				OBL species _____ x 1 = _____	
1. <u>Rubus armeniacus</u>	<u>55%</u>	<u>Yes</u>	<u>FAC</u>	FACW species _____ x 2 = _____	
2. <u>Rubus ursinus</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
56% = Total Cover				Prevalence Index = B/A = _____	
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Equisetum telmateia</u>	<u>2%</u>	<u>No</u>	<u>FACW</u>		1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		2 - Dominance Test is >50%
3. _____	_____	_____	_____		3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. _____	_____	_____	_____		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____	_____	_____	_____		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
2% = Total Cover					
<b>Woody Vine Stratum</b> (Plot size: <u>r=2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>	
1. <u>Hedera helix</u>	<u>98%</u>	<u>Yes</u>	<u>FACU</u>		
2. _____	_____	_____	_____		
98% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**  
 Aggressive vegetation (English ivy and Himalayan blackberry) dominate this area.

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	10YR 2/1	100					L	
7-11	10YR 3/2	80	10YR 4/2	20	D	M	GrSaL	
11-17	2.5YR 5/2	99	10YR 5/6	<1	C	M	GrSaL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**Remarks:**  
Soils may be the result of prior disturbances

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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"/> 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"/> Sparsely Vegetated Concave Surface (B8)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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: OMFS and TDLE City/County: Federal Way/King State: WA Sampling Date: 11/6/2019  
 Applicant/Owner: Sound Transit Sampling Point: WFW-08-SP1  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): stream bench Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.308060 Long: -122.302762 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 0 to 6 percent slopes - AmB - 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           , Soil           , or Hydrology            significantly disturbed? Are "Normal Circumstances" present? Yes X No             
 Are Vegetation           , Soil X, 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 <u>X</u>	No <u>          </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit.

**Remarks:**  
 PSS wetland SP for WFW-08. In SW section of wetland. Wetland is adjacent to E. Fork Hylebos Creek Trib 0016A. The stream is heavily modified and appears to be used as a constructed stormwater facility. Wetlands have developed at the edges.  
 Problematic Soil: Soil appears to be a fluvial entisol with aquatic moisture regime; redoximorphic features are not evident.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>1=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>	<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>	
<u>0%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>1=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>          </u> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>          </u> <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>          </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Salix lasiandra</u>	<u>70%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Rubus armeniacus</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>90%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>1=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Typha latifolia</u>	<u>15%</u>	<u>No</u>	<u>OBL</u>	
3. <u>Ranunculus repens</u>	<u>5%</u>	<u>No</u>	<u>FAC</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>100%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>1=1m</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				
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>				

**Remarks:**

**SOIL** **Sampling Point: WFW-08-SP1**

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

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

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>quarry spalls</u> Depth (inches): <u>4.5</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
 unable to dig past quarry spalls at 4.5" below ground surface. Stream has been heavily modified and appears to be used as a constructed stormwater facility. Soil under ordinary high water line in floodplain appears to be a fluvial entisol with aquic moisture regime; redoximorphic features are not evident. Recent deposition evident. Strong hydrophytic vegetation, geomorphic position on stream bench, significant organics in soils, and strong wetland hydrology indicators support determination as hydric soil.

**HYDROLOGY**

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

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-08-SP2  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): convex Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.308239 Long: -122.302792 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): arents, Alderwood material, 0 to 6 percent slope - AmB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit.

**Remarks:**  
 upland SP to WFW-08-SP1 and SP3, located on fairway of golf course. SP is west of wetland and just outside the fence surrounding the wetland.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
		<u>0%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Prevalence Index worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Poa pratensis</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Stellaria media</u>		<u>15%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Draba verna</u>		<u>10%</u>	<u>No</u>	<u>NOL</u>	
4. <u>Trifolium repens</u>		<u>2%</u>	<u>No</u>	<u>FAC</u>	
5. <u>Hypochaeris radicata</u>		<u>1%</u>	<u>No</u>	<u>FACU</u>	
6. <u>Phalaris arundinacea</u>		<u>1%</u>	<u>No</u>	<u>FACW</u>	
7. <u>Cirsium arvense</u>		<u>1%</u>	<u>No</u>	<u>FAC</u>	
8. _____					
9. _____					
10. _____					
11. _____					
		<u>60%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>40%</u>			

**Remarks:**  
 moss cover is 40%

<b>SOIL</b>						<b>Sampling Point:</b>	<b>WFW-08-SP2</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features			Texture <sup>3</sup>	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	
0-2	10YR 2/2	100					SaL
2-19	2.5Y 4/2	100					GrSa

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	<sup>3</sup> 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)		

<b>Restrictive Layer (if present):</b>		<b>Hydric Soil</b>
Type: <u>none</u>		<b>Present?</b>
Depth (inches): <u>n/a</u>		Yes _____ No <b>X</b>

**Remarks:**  
sample plot in golf fairway.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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"/> 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)

<b>Field Observations:</b>			<b>Wetland Hydrology</b>
Surface Water Present?	Yes _____ No <b>X</b>	Depth (inches): _____	<b>Present?</b>
Water Table Present?	Yes _____ No <b>X</b>	Depth (inches): _____	Yes _____ No <b>X</b>
Saturation Present? (includes capillary fringe)	Yes _____ No <b>X</b>	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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/6/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-08-SP3  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Stream bench Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.308250 Long: -122.302752 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): arents, Alderwood material, 0 to 6 percent slope - AmB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil X, 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes _____ No _____
Hydric Soil Present?	Yes <u>X</u>	No _____		
Wetland Hydrology Present?	Yes <u>X</u>	No _____		

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

**Remarks:**  
 PEM wetland SP for WFW-08; located in NW section of wetland. Wetland associated with E. Fork Hylebos Creek Tributary 0016A and is adjacent to a golf course. The stream has been heavily modified, resulting in disturbed soils in riverine wetlands. Naturally problematic Soil: Soil under ordinary high water line in floodplain appears to be a fluvial entisol with aquic moisture regime; therefore, redoximorphic features are not evident.

**VEGETATION**

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

**Remarks:**

**SOIL** **Sampling Point: WFW-08-SP3**

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	10YR 2/2	100					CL	greasy

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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 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)	<sup>3</sup> 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)	

<b>Restrictive Layer (if present):</b> Type: <u>quarry spalls</u> Depth (inches): <u>7"</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
unable to dig past 7" due to dense quarry spalls. Stream has been heavily modified.  
Soil under ordinary high water line in floodplain appears to be a fluvial entisol with aquic moisture regime; therefore, redoximorphic features are not evident. Recent deposition difficult to detect because water inputs are low velocity from groundwater, stormwater pipes and runoff. Strong hydrophytic vegetation, geomorphic position on stream bench, significant organics in soils, and strong wetland hydrology indicators support determination as hydric soil.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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 checked="" 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 checked="" 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 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)		

<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>  </u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/6/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-09-SP1  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): stream bench Local relief (concave, convex, none): none Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.307276 Long: -122.302679 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 0 to 6 percent slopes - AmB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit.

**Remarks:**  
 PSS wetland SP for WFW-09. Approx. 3m east of E. Fork Hylebos Creek Tributary 0016A near ordinary high water line flag WH-LB34

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>					
		<u>0%</u>		= Total Cover	
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus spectabilis</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Spiraea douglasii</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Fraxinus latifolia</u>		<u>10%</u>	<u>No</u>	<u>FACW</u>	
4. <u>Rubus armeniacus</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
5. <u>Rubus ursinus</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
		<u>100%</u>		= Total Cover	
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Carex obnupta</u>		<u>60%</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Phalaris arundinacea</u>		<u>10%</u>	<u>No</u>	<u>FACW</u>	
3. <u>Ranunculus repens</u>		<u>2%</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>					
		<u>72%</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	
<b>% Bare Ground in Herb Stratum</b> <u>28%</u>					

Remarks:



SOIL							Sampling Point: WFW-09-SP1	
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth	Matrix		Redox Features			Texture <sup>3</sup>	Remarks	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 2/2	100					CL	
5-10	10YR 4/1	95	10YR 5/8	5	C	M	CL	
10-16	5Y 5/2	70	7.5YR 4/4	30	C	PL	CL	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> Texture: Sa = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)								
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>					<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)					
						<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<b>Restrictive Layer (if present):</b>						<b>Hydric Soil Present?</b>		
Type: <u>none</u>						Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Depth (inches): <u>n/a</u>								
<b>Remarks:</b> redox features along living roots between 10-16" BGS.								
<b>HYDROLOGY</b>								
<b>Wetland Hydrology Indicators:</b>								
<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 checked="" 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 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 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)								
<b>Field Observations:</b>						<b>Wetland Hydrology Present?</b>		
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>11</u>					
Saturation Present? (includes capillary fringe)		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>8</u>					
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>								
<b>Remarks:</b> Oxidized rhisospheres observed at depths between 10 and 16 inches.								

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/6/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-09-SP2  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ slope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.307265 Long: -122.302611 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 0 to 6 percent slopes - AmB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland SP for WFW-09. located approx. 5m east of E. Fork Hylebos Creek Tributary 0016A and approx. 2m east of WFW-09-SP1. This is an unusual spot within a golf course. The upland plot is located on a slope, 2 vertical feet above the wetland plot and was clearly not in contact with the water table. This location receives a lot of ongoing irrigation from the surrounding fairways, which is presumed to support the vegetation that extends upslope from the wetland. Despite meeting hydrophytic vegetation, and not quite meeting soils, there was no wetland hydrology despite wetter than normal conditions.

**VEGETATION**

				<b>Dominance Test worksheet:</b>	
<u>Tree Stratum</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>		
(Plot size: <u>r=3m</u> )				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)	
1. <u>Populus balsamifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
2. <u>Fraxinus latifolia</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
3. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
4. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____	
<u>30%</u> = Total Cover				OBL species _____ x 1 = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )				FACW species _____ x 2 = _____	
1. <u>Rubus spectabilis</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>	FAC species _____ x 3 = _____	
2. <u>Rubus ursinus</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	FACU species _____ x 4 = _____	
3. _____	_____	_____	_____	UPL species _____ x 5 = _____	
4. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____	
<u>72%</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b>	
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )				_____ 1 - Rapid Test for Hydrophytic Vegetation	
1. <u>Carex obnupta</u>	<u>80%</u>	<u>Yes</u>	<u>OBL</u>	<u>X</u> 2 - Dominance Test is >50%	
2. _____	_____	_____	_____	_____ 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
3. _____	_____	_____	_____	_____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. _____	_____	_____	_____	_____ 5 - Wetland Non-Vascular Plants <sup>1</sup>	
5. _____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>	
6. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>80%</u> = Total Cover					
<b>Woody Vine Stratum</b> (Plot size: <u>r=2m</u> )					
1. <u>none</u>	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0%</u> = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <u>20%</u>					

**Remarks:**  
*Carex obnupta* tolerates dry conditions, is densely rhizomatous and spreads easily. It's commonly found in upland areas adjacent to wetlands.

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-9	10YR 3/2	100					CL	
9-18	10YR 3/2	90	10YR 5/6	5	C	M	CL	
			10YR 4/6	C	C	M	CL	

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

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>none</u></p> <p>Depth (inches): <u>n/a</u></p>	<p><b>Hydric Soil Present?</b>      Yes <input type="checkbox"/>      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
does not meet F6 due to thickness

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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><b>Field Observations:</b></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><b>Wetland Hydrology Present?</b>      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:**  
No hydrology despite wetter than normal conditions.

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/1/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP01  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.305663 Long: -122.303589 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 PFO wetland SP in WFW-10, Unit B. Located west of E. Fork Hylebos Creek Trib 0016A (left bank) and under the ordinary high water line (OHWL).

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>      7      </u> (A)  Total Number of Dominant Species Across All Strata: <u>      8      </u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>88%</u> (A/B)
1. <u>Thuja plicata</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus balsamifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Alnus rubra</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
	<u>95%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>Populus balsamifera</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus spectabilis</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Fraxinus latifolia</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
	<u>25%</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Athyrium cyclosorum</u>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Carex obnupta</u>	<u>10%</u>	<u>Yes</u>	<u>OBL</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>25%</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Hedera helix</u>	<u>100%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
	<u>100%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>75%</u>			

**Remarks:**  
 Ground covered by English ivy, an aggressive, non-native species.



<b>SOIL</b>							<b>Sampling Point:</b> WFW-10-SP01
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features			Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	
0-11	10YR 2/2	100					L some OM
11-16	10YR 3/2	100					GrL gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<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 type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<sup>3</sup> 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)			

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No <u>        </u>
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**Remarks:**  
 SP located within OHWL of a stream. Strong hydrophytic vegetation and wetland hydrology support determination of wetland area. Soils assumed to be hydric based on strong aquatic moisture regime.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b>				<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>        </u>	
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? (includes capillary fringe)	Yes <u>x</u> No <u>        </u>	Depth (inches): <u>surface</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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/1/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP02  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.305642 Long: -122.303664 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 Upland SP for WFW-10, Unit B. Located upslope (west) of SP1 and E. Fork Hylebos Creek Trib 0016A.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</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>60%</u> (A/B)
1. <u>Thuja plicata</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</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>100%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>Mahonia nervosa</u>	<u>3%</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>43%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Polystichum munitum</u>	<u>50%</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>50%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Hedera helix</u>	<u>60%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
<u>60%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b> <u>50%</u>				

**Remarks:**



<b>SOIL</b>							Sampling Point: <b>WFW-10-SP02</b>							
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>														
Depth	Matrix		Redox Features			Texture	Remarks							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>								
0-6	10YR 2/2	100					L							
6-15	10YR 3/2	80					L	mixed matrix						
6-15	10YR 3/6	20												
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> 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)														
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>					<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>									
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<sup>3</sup> 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)													
<input type="checkbox"/> 2 cm Muck (A10)														
<input type="checkbox"/> Red Parent Material (TF2)														
<input type="checkbox"/> Very Shallow Dark Surface (TF12)														
<b>Restrictive Layer (if present):</b>					<b>Hydric Soil Present?</b>									
Type: <u>none</u>					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X									
Depth (inches): <u>n/a</u>														
<b>Remarks:</b>														
<b>HYDROLOGY</b>														
<b>Wetland Hydrology Indicators:</b>														
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	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.												
<input type="checkbox"/> High Water Table (A2)	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,	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.													
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)														
<b>Field Observations:</b>					<b>Wetland Hydrology Present?</b>									
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> x	Depth (inches): <u>          </u>			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X									
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> x	Depth (inches): <u>          </u>												
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> x	Depth (inches): <u>          </u>												
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>														
<b>Remarks:</b>														

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/20/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-10-SP03**  
 Investigator(s): Steve Krueger, Aaron Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): stream bench Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304418 Long: -122.303953 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 PFO wetland SP for WFW10, Unit A. Located approx. 2m west of E. Fork Hylebos near OHWM flag RB5.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Prevalence Index worksheet:</b> 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>Acer circinatum</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
3. <u>Rubus laciniatus</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Ilex aquifolium</u>		<u>2%</u>	<u>No</u>	<u>FACU</u>	
5. <u>      </u>					
		<u>92%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>      </u> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Ranunculus repens</u>		<u>1%</u>	<u>No</u>	<u>FAC</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>					
		<u>1%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>none</u>					
2. <u>      </u>					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>99%</u>					

**Remarks:**



<b>SOIL</b>							<b>Sampling Point: WFW-10-SP03</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100				L	redox may be masked by organics
2-9	10YR 3/2	100				L	
9-12	10YR 4/2	100				SaL	
12-16	2.5Y 4/2	90	7.5Y 5/8	10	C	M	SaL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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 checked="" 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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No <u>      </u>
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**Remarks:**  
Assumed to be hydric, with a problematic layer 9-12 (lots of organic masking)

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**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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 checked="" 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 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 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)		

<b>Field Observations:</b> Surface Water Present?    Yes <u>      </u> No <u>x</u> Water Table Present?      Yes <u>x</u> No <u>      </u> Depth (inches): <u>5.5</u> Saturation Present?        Yes <u>x</u> No <u>      </u> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-10-SP04**  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304432 Long: -122.304019 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>      </u>	No <u><b>X</b></u>	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>      </u>	No <u><b>X</b></u>
Hydric Soil Present?	Yes <u>      </u>	No <u><b>X</b></u>			
Wetland Hydrology Present?	Yes <u>      </u>	No <u><b>X</b></u>			

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 Upland SP for WFW-10 Unit A. located west of East Fork Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u>	<u>(Plot size: r=3m)</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b>	
1.	<u><i>Acer circinatum</i></u>	<u>40%</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>6</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>	<b>Prevalence Index worksheet:</b>	
		<u>40%</u>	<u>= Total Cover</u>			Total % Cover of: <u>      </u> Multiply by: <u>      </u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )						
1.	<u><i>Acer circinatum</i></u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	OBL species <u>      </u> x 1 = <u>      </u>	
2.	<u><i>Phalaris arundinacea</i></u>	<u>15%</u>	<u>Yes</u>	<u>FACW</u>	FACW species <u>      </u> x 2 = <u>      </u>	
3.	<u><i>Ilex aquifolium</i></u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>	FAC species <u>      </u> x 3 = <u>      </u>	
4.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	FACU species <u>      </u> x 4 = <u>      </u>	
5.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	UPL species <u>      </u> x 5 = <u>      </u>	
		<u>50%</u>	<u>= Total Cover</u>		Column Totals: <u>      </u> (A) <u>      </u> (B)	
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )						
1.	<u><i>Polystichum munitum</i></u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index = B/A = <u>      </u>	
2.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<b>Hydrophytic Vegetation Indicators:</b>	
3.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
4.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		<u>2</u> - Dominance Test is >50%
5.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		<u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>
6.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
7.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		<u>5</u> - Wetland Non-Vascular Plants <sup>1</sup>
8.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
9.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
10.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		
11.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		
		<u>15%</u>	<u>= Total Cover</u>			
<b>Woody Vine Stratum</b> (Plot size: <u>r=2m</u> )						
1.	<u><i>Hedera helix</i></u>	<u>90%</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u><b>X</b></u>	
2.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>		
		<u>90%</u>	<u>= Total Cover</u>			
<b>% Bare Ground in Herb Stratum</b> <u>5%</u>						

**Remarks:**  
 leaf litter covering ground



**SOIL** Sampling Point: **WFW-10-SP04**

**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 <sup>1</sup>		
0-7	10YR 3/3	100				L	
7-17	10YR 4/6	80				GrL	mixed matrix
	10YR 4/3	20					

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes _____      No <b>X</b> _____
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**Remarks:**

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**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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"/> 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"/> Sparsely Vegetated Concave Surface (B8)	

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

**Remarks:**

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-10-SP05**  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304213 Long: -122.303748 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 PFO wetland SP located within WFW-10, Unit B. SP located west of E. Fork Hylebos Creek Trib 0016A. Creek on parcel is channelized with concrete armoring.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>40%</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>40%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>45%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus armeniacus</u>	<u>35%</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>80%</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> 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	<b>Hydrophytic Vegetation Present?</b> 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			
<b>% Bare Ground in Herb Stratum</b>	<u>100%</u>			

**Remarks:**  
 ground covered by leaf litter



<b>SOIL</b>							Sampling Point: <b>WFW-10-SP05</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	
0-3	10YR 2/2	100					L
3-11	10YR 3/2	95	10YR 4/6	5	C	M	GrL
11-17	10YR 3/6	95	7.5YR 5/8	5	C	M	GrL
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> 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)							
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)				
<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.							
<b>Restrictive Layer (if present):</b>						<b>Hydric Soil Present?</b>	
Type: <u>none</u>						Yes <u>X</u> No <u>      </u>	
Depth (inches): <u>n/a</u>							
<b>Remarks:</b>							
<b>HYDROLOGY</b>							
<b>Wetland Hydrology Indicators:</b>							
<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 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 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 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)							
<b>Field Observations:</b>						<b>Wetland Hydrology Present?</b>	
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>14</u>				
Saturation Present? (includes capillary fringe)	Yes <u>x</u>	No <u>      </u>	Depth (inches): <u>10</u>				
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>							
<b>Remarks:</b>							



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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-10-SP06**  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304181 Long: -122.303611 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 Upland SP for WFW-10, Unit B. Located upslope of wetland, west of E. Fork Hylebos Creek Trib 0016A

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Rubus armeniacus</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus spectabilis</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		<u>100%</u> = 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>					
		<u>0%</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			
<b>% Bare Ground in Herb Stratum</b>		<u>100%</u>			

**Remarks:**



<b>SOIL</b>							<b>Sampling Point: WFW-10-SP06</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features			Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-5	10YR 3/2	100				L	
5-16	10YR 3/2	98	10YR 4/6	2	C	M	GrL

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

<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)			<sup>3</sup> 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)						

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>        </u> No <u><b>X</b></u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b>				<b>Wetland Hydrology Present?</b> Yes <u>        </u> No <u><b>X</b></u>
Surface Water Present?	Yes <u>        </u> No <u><b>x</b></u>	Depth (inches): <u>        </u>		
Water Table Present?	Yes <u>        </u> No <u><b>x</b></u>	Depth (inches): <u>        </u>		
Saturation Present? (includes capillary fringe)	Yes <u>        </u> No <u><b>x</b></u>	Depth (inches): <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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP07  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): flat bench Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.303639 Long: -122.303835 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 PFO wetland SP in WFW-10, Unit B. Located approx. 3 m east of OHWM of E. Fork Hylebos Creek Trib 0016A

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Phalaris arundinacea</u>		90%	Yes	FACW	
2. <u>Ranunculus repens</u>		7%	No	FAC	
3. <u>Poa pratensis</u>		2%	No	FAC	
4. <u>Galium aparine</u>		1%	No	FACU	
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			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



SOIL								Sampling Point:	WFW-10-SP07
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 <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-5	10YR 3/2	100					GrL		
5-16	10YR 2/2	95	10YR 4/6	5	C	M	GrL		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. <sup>3</sup>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 Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	<sup>3</sup> 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 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: none

Depth (inches): n/a

**Hydric Soil Present?**      Yes X      No       

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 checked="" 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 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:**

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? (includes capillary fringe)	Yes <u>x</u> No <u>      </u>	Depth (inches): <u>9</u>

**Wetland Hydrology Present?**      Yes X      No       

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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP08  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): flat stream bench Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.303661 Long: -122.303870 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 upland SP of WFW10, Unit B. Located approx. 6m east of E. Fork Hylebos Creek (and 3m east of wetland SP WFW10-SP5).

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u>none</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. _____					<b>Prevalence Index worksheet:</b>	
0% = 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>Rubus armeniacus</u>		<u>5%</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)	
5% = Total Cover					Prevalence Index = B/A = _____	
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Poa pratensis</u>		<u>45%</u>	<u>Yes</u>	<u>FAC</u>		1 - Rapid Test for Hydrophytic Vegetation
2. <u>Phalaris arundinacea</u>		<u>35%</u>	<u>Yes</u>	<u>FACW</u>		X 2 - Dominance Test is >50%
3. <u>Ranunculus repens</u>		<u>18%</u>	<u>No</u>	<u>FAC</u>		3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. <u>Galium aparine</u>		<u>2%</u>	<u>No</u>	<u>FACU</u>		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____						5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____						Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____						<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
9. _____						
10. _____						
100% = Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>none</u>						
2. _____						
0% = Total Cover						
% Bare Ground in Herb Stratum <u>0%</u>						

**Remarks:**

<b>SOIL</b>								<b>Sampling Point: WFW-10-SP08</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth (inches)	Matrix		Redox Features			Texture	Remarks	
Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0-4	10YR 2/2	100				GrL		
4-10	10YR 2/2	70				GrL	mixed matrix	
	10YR 3/6	30				GrL	mixed matrix	
10-16	10YR 3/6	100				GrL		
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> 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)								
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>					<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)			<sup>3</sup> 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)					
<b>Restrictive Layer (if present):</b>					<b>Hydric Soil Present?</b>			
Type: <u>none</u>					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Depth (inches): <u>n/a</u>								
<b>Remarks:</b> appears to be fill material								
<b>HYDROLOGY</b>								
<b>Wetland Hydrology Indicators:</b>					<b>Secondary Indicators (2 or more required)</b>			
<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 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)								
<b>Field Observations:</b>					<b>Wetland Hydrology Present?</b>			
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>	Yes <input type="checkbox"/> No <input checked="" 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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>					
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>								
<b>Remarks:</b>								

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/5/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-10-SP09**  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304739 Long: -122.303713 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 PFO wetland SP in WFW10, Unit C. SP positioned on a terrace to the east of E. Fork Hylebos Creek Trib 0016A

**VEGETATION**

<u>Tree Stratum</u>	<u>(Plot size: r=3m)</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b>	
1. <u>Alnus rubra</u>		<u>90%</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>5</u> (B)	
3. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)	
4. <u>      </u>		<u>90%</u>	<u>      </u>	<u>      </u>	<b>Prevalence Index worksheet:</b>	
<u>90% = Total Cover</u>						Total % Cover of: <u>      </u> Multiply by: <u>      </u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )						
1. <u>Rubus spectabilis</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	OBL species <u>      </u> x 1 = <u>      </u>	
2. <u>Rubus armeniacus</u>		<u>15%</u>	<u>Yes</u>	<u>FAC</u>	FACW species <u>      </u> x 2 = <u>      </u>	
3. <u>Rubus ursinus</u>		<u>15%</u>	<u>Yes</u>	<u>FACU</u>	FAC species <u>      </u> x 3 = <u>      </u>	
4. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	FACU species <u>      </u> x 4 = <u>      </u>	
5. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	UPL species <u>      </u> x 5 = <u>      </u>	
<u>70% = Total Cover</u>					Column Totals: <u>      </u> (A) <u>      </u> (B)	
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )						
1. <u>none</u>		<u>      </u>	<u>      </u>	<u>      </u>	Prevalence Index = B/A = <u>      </u>	
2. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	<b>Hydrophytic Vegetation Indicators:</b>	
3. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
4. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		<u>X</u> <u>2</u> - Dominance Test is >50%
5. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		<u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>
6. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
7. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		<u>5</u> - Wetland Non-Vascular Plants <sup>1</sup>
8. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		<u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
9. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
10. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		
11. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		
<u>0% = Total Cover</u>						
<b>Woody Vine Stratum</b> (Plot size: <u>r=2m</u> )						
1. <u>Hedera helix</u>		<u>100%</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>	
2. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>		
<u>100% = Total Cover</u>						
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>						

**Remarks:**

<b>SOIL</b>								<b>Sampling Point:</b> WFW-10-SP09
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-11	10YR 2/2	100					GrCL	
11-17	5Y 5/2	70	10YR 5/6	25	C	M	C	
			7.5YR 5/8	5	C	M	C	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> 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)								
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>					<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)			<sup>3</sup> 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)					
<b>Restrictive Layer (if present):</b>						<b>Hydric Soil Present?</b>		
Type: <u>none</u>						Yes <u>X</u> No _____		
Depth (inches): <u>n/a</u>								
<b>Remarks:</b>								
<b>HYDROLOGY</b>								
<b>Wetland Hydrology Indicators:</b>								
<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 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)								
<b>Field Observations:</b>						<b>Wetland Hydrology Present?</b>		
Surface Water Present?		Yes _____ No <u>x</u>	Depth (inches): _____		Yes <u>X</u> No _____			
Water Table Present?		Yes _____ No <u>x</u>	Depth (inches): _____					
Saturation Present? (includes capillary fringe)		Yes <u>x</u> No _____	Depth (inches): <u>11</u>					
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>								
<b>Remarks:</b>								



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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/5/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP10  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304735 Long: -122.303799 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>      </u>	No <u><b>X</b></u>	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>      </u>	No <u><b>X</b></u>
Hydric Soil Present?	Yes <u>      </u>	No <u><b>X</b></u>			
Wetland Hydrology Present?	Yes <u>      </u>	No <u><b>X</b></u>			

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November and within the normal range for visits within December. The month of November itself was drier than normal, and December itself was wetter than normal.

**Remarks:**  
 Upland SP in WFW-10, Unit C. SP positioned above stream terrace to the east of E. Fork Hylebos Creek Trib 0016A

**VEGETATION**

<u>Tree Stratum</u>	<u>(Plot size: r=3m)</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b>
1. <u><i>Alnus rubra</i></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>6</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>	<b>Prevalence Index worksheet:</b>
100% = Total Cover					
<b>Sapling/Shrub Stratum</b> (Plot size: r=2m)					
1. <u><i>Rubus spectabilis</i></u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	OBL species <u>      </u> x 1 = <u>      </u>
2. <u><i>Sambucus racemosa</i></u>		<u>30%</u>	<u>Yes</u>	<u>FACU</u>	FACW species <u>      </u> x 2 = <u>      </u>
3. <u><i>Rubus ursinus</i></u>		<u>25%</u>	<u>Yes</u>	<u>FACU</u>	FAC species <u>      </u> x 3 = <u>      </u>
4. <u><i>Rubus armeniacus</i></u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	FACU species <u>      </u> x 4 = <u>      </u>
5. <u><i>Ilex aquifolium</i></u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	UPL species <u>      </u> x 5 = <u>      </u>
105% = Total Cover					Column Totals: <u>      </u> (A) <u>      </u> (B)
<b>Herb Stratum</b> (Plot size: r=1m)					
1. <u><i>Polystichum munitum</i></u>		<u>15%</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index = B/A = <u>      </u>
2. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	<b>Hydrophytic Vegetation Indicators:</b>
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>	
15% = Total Cover					
<b>Woody Vine Stratum</b> (Plot size: r=2m)					
1. <u><i>Hedera helix</i></u>		<u>50%</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u><b>X</b></u>
2. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
50% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <u>35%</u>					

**Remarks:**  
 ground covered by leaf litter

<b>SOIL</b>								<b>Sampling Point: WFW-10-SP10</b>	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>									
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-13	10YR 2/2	100					L		
13-17	10YR 3/3	95	7.5YR 4/6	5	C	M	CL		
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> 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)									
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>					<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>				
<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)			<sup>3</sup> 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)						
<b>Restrictive Layer (if present):</b>					<b>Hydric Soil Present?</b>				
Type: <u>none</u>					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Depth (inches): <u>n/a</u>									
<b>Remarks:</b>									
<b>HYDROLOGY</b>									
<b>Wetland Hydrology Indicators:</b>									
<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)									
<b>Field Observations:</b>					<b>Wetland Hydrology Present?</b>				
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):						
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>									
<b>Remarks:</b>									

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 1/21/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP11  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.303131 Long: -122.303800 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>      </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was normal for the three months prior to the site visits in January. The month of Decement was wet, November was dry and October was normal.

**Remarks:**  
 Upland SP to WFW-10 Unit C, SP located between driveway and stream bank east of East Hylebos Creek Trib 0016A

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>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	<b>Prevalence Index worksheet:</b> 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>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>	
	<u>0%</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Phalaris arundinacea</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Agrostis sp.</u>	<u>15%</u>	<u>No</u>	<u>FAC*</u>	
3. <u>Hypochaeris radicata</u>	<u>3%</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>98%</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> 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>	
	<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>2%</u>			

**Remarks:**  
 \*presumed FAC

**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 <sup>1</sup>		
0-15	10YR 2/2	100				GrSaL	cobbles
15-16	10YR 3/3	90	10YR 4/6	10	C	M	GrSaL cobbles

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

<sup>3</sup>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 Soils <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> 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) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (except 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)	

<b>Field Observations:</b> 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): _____	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 1/21/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP12  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.303121 Long: -122.303895 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil X, 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 normal for the three months prior to the site visits in January. The month of Decement was wet, November was dry and October was normal.

**Remarks:**  
 WFW10-Unit C. Emergent sample point within PFO wetland vegetation unit. Located on right bank within floodplain near E. Hylebos RB401 OHWM flag, 3m north of double culvert within OHWLs.  
 Problematic Soil: lack of indicators but appears to be a fluvial entisol with aquic moisture regime. Geomorphic position, strong hydrophytic vegetation and wetland hydrology support determination of wetland area.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus armeniacus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		<u>20%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>		<u>99%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>		<u>1%</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			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



<b>SOIL</b>							<b>Sampling Point:</b> <b>WFW-10-SP12</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture
0-16	10YR 2/2	100					GrL
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> 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)							
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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 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)				
<b>Restrictive Layer (if present):</b>							
Type: <u>none</u>							
Depth (inches): <u>n/a</u>							
<b>Hydric Soil Present?</b>							
Yes <input checked="" type="checkbox"/>							No <input type="checkbox"/>
<b>Remarks:</b>							
No hydric soil indicator met, SP located within the floodplain of a stream. Fluvial entisol with aquic moisture regime. Soil is hydric based on strong vegetation and hydrology indicators.							
<b>HYDROLOGY</b>							
<b>Wetland Hydrology Indicators:</b>				<b>Secondary Indicators (2 or more required)</b>			
<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 checked="" 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 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 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)							
<b>Field Observations:</b>							
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>	<b>Wetland Hydrology Present?</b>			
Water Table Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches): <u>2"</u>	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>surface</u>				
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>							
<b>Remarks:</b>							

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 1/21/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-10-SP13  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.303221 Long: -122.303937 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil X, 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was normal for the three months prior to the site visits in January. The month of Decement was wet, November was dry and October was normal.

**Remarks:**  
 PFO wetland SP on right bank of East Hylebos Creek Trib 0016A, above OHWL.

**VEGETATION**

<u>Tree Stratum</u>	<u>(Plot size: r=3m)</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b>
1. <u>Alnus rubra</u>		<u>70%</u>	<u>Yes</u>	<u>FAC</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)
70% = Total Cover					
<u>Sapling/Shrub Stratum</u>	<u>(Plot size: r=2m)</u>				<b>Prevalence Index worksheet:</b>
1. <u>Rubus spectabilis</u>		<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus armeniacus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	OBL species _____ x 1 = _____
3. _____		_____	_____	_____	FACW species _____ x 2 = _____
4. _____		_____	_____	_____	FAC species _____ x 3 = _____
5. _____		_____	_____	_____	FACU species _____ x 4 = _____
45% = Total Cover					UPL species _____ x 5 = _____
					Column Totals: _____ (A) _____ (B)
					Prevalence Index = B/A = _____
<u>Herb Stratum</u>	<u>(Plot size: r=1m)</u>				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	X 2 - Dominance Test is >50%
3. _____		_____	_____	_____	3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. _____		_____	_____	_____	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____		_____	_____	_____	5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____		_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____		_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
0% = Total Cover					
<u>Woody Vine Stratum</u>	<u>(Plot size: r=2m)</u>				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-8	10YR 3/1	100					L	slightly greasy
8-16	10YR 3/1	95	7.5YR 3/4	5	C	M	GrL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <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: none  
Depth (inches): n/a

<b>Hydric Soil Present?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Remarks:**

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input 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)	<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)

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)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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 checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u>	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>7</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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/1/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-11-SP1  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.303850 Long: -122.302638 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 PFO wetland SP, located east of 24th Ave. S

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>67%</u> (A/B)
1. <u>Populus balsamifera</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>40%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )				<b>Prevalence Index worksheet:</b> 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 laciniatus</u>	<u>25%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Spiraea douglasii</u>	<u>15%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Lonicera involucrata</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Oemleria cerasiformis</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
5. <u>Cornus alba</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>	
	<u>70%*</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Ranunculus repens</u>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Phalaris arundinacea</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Solanum dulcamara</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Geum macrophyllum</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	
5. <u>Epilobium ciliatum</u>	<u>1%</u>	<u>No</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	<u>23%</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )				
1. <u>Hedera helix</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
	<u>10%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>67%</u>			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____

**Remarks:**  
 \* Fraxinus latifolia, 5%, no, FACW  
 \* Rubus ursinus, 5%, no, FACU  
 ground covered by leaf litter

**SOIL** Sampling Point: **WFW-11-SP1**

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	100					L	
5-7	2.5Y 4/2	85	2.5Y 6/2	10	D	M	L	
			10YR 5/6	5	C	M	L	
7-16	10YR 6/2	65					L	
	10YR 4/2	20	10YR 4/6	15	C	M	L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

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

<b>Field Observations:</b> 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>  6  </u> Saturation Present?        Yes <u>  x  </u> No <u>      </u> Depth (inches): <u>  4  </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/1/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-11-SP2  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.303783 Long: -122.302703 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 upland SP of WFW11. SP located east of 24th Ave S

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
1. <u>Acer circinatum</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Pseudotsuga menziesii</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
4. _____	_____	_____	_____	
<u>90%</u> = Total Cover				<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )				
1. <u>Gaultheria shallon</u>	<u>60%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Corylus cornuta</u>	<u>15%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Rubus laciniatus</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Symphoricarpos albus</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
5. <u>Mahonia nervosa</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	
<u>93%*</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Chamaenerion angustifolium (dead)</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>2%</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<u>100%</u>			

**Remarks:**  
 \* Ilex aquifolium, 1%, No, FACU

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100					L	
2-5	7.5YR 2.5/2	100					L	
5-16	7.5YR 3/4	100					L	some gravel

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>none</u></p> <p>Depth (inches): <u>n/a</u></p>	<p><b>Hydric Soil Present?</b></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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><b>Field Observations:</b></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? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p>	<p><b>Wetland Hydrology Present?</b></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:**

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-11-SP3  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304059 Long: -122.302397 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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           , Soil           , or Hydrology            significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No <u>          </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 PEM wetland SP, located in NW corner of WFW11

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>				
<u>0%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>          </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> 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. <u>          </u>				
3. <u>          </u>				
4. <u>          </u>				
5. <u>          </u>				
<u>5%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>98%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>	<u>2%</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=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>none</u>				
2. <u>          </u>				
<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>          </u>

**Remarks:**

**SOIL** Sampling Point: **WFW-11-SP3**

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100					SaL	
2-10	10YR 3/2	90	10YR 5/6	10	C	M	SaL	
10-16	10YR 3/2	95	5Y 5/1	5	D	M	SaL	

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
lots of large rock on surface

**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)	<input type="checkbox"/> Other (Explain in Remarks)

<b>Field Observations:</b> 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>4.5</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-11-SP4  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): road slope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.304125 Long: -122.302397 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 % slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
<b>Precipitation:</b>			

According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 upland SP for WFW11, located approx. 2m east of 24th Ave S.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <u>none</u>					
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					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Prevalence Index worksheet:</b>
1. <u>Rubus armeniacus</u>		30%	Yes	FAC	
2. <u>Rubus spectabilis</u>		5%	No	FAC	OBL species _____ x 1 = _____
3. _____					FACW species _____ x 2 = _____
4. _____					FAC species _____ x 3 = _____
5. _____					FACU species _____ x 4 = _____
35% = Total Cover					UPL species _____ x 5 = _____
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				Column Totals: _____ (A) _____ (B)
1. <u>Schedonorus arundinaceus</u>		70%	Yes	FAC	Prevalence Index = B/A = _____
2. <u>Ranunculus repens</u>		10%	No	FAC	<b>Hydrophytic Vegetation Indicators:</b>
3. <u>Galium aparine</u>		5%	No	FACU	
4. <u>Phalaris arundinacea</u>		5%	No	FACW	X 2 - Dominance Test is >50%
5. _____					3 - Prevalence Index is ≤3.0 <sup>1</sup>
6. _____					4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
7. _____					5 - Wetland Non-Vascular Plants <sup>1</sup>
8. _____					Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
9. _____					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
10. _____					<b>Hydrophytic Vegetation Present?</b>
11. _____					
90% = 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>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 <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100					L	
3-17	10YR 3/2	98	10YR 6/6	2	C	M	L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<b>Primary Indicators (minimum of one required; check all that apply)</b>	
<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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/14/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-12-SP1**  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): stream bench Local relief (concave, convex, none): none Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.307100 Long: -122.302974 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No x  
 Are Vegetation \_\_\_\_\_, Soil x, 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 PEM wetland SP for WFW-12. Associated with East Fork Hylebos Creek Trib 0016A. Located at toe of slope near culvert OHWM flag EH-LB35 and 37. Problematic soils: No hydric soils indicators, but rganics may be masking redox features, as well as fluvial entisol with aquatic moisture regime

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Phalaris arundinacea</u>		<u>90%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
95% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>1m</u> )				
1. _____					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>1</sup>		
0-6	10YR 2/2	100				CL	OM - roots
7-17	5Y 4/1	100				L	roots throughout

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

<sup>3</sup>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)

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input checked="" type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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**Restrictive Layer (if present):**

Type: none

Depth (inches): n/a

**Hydric Soil Present?**      Yes       No

**Remarks:**  
 Sample point is approximately 2m from wetted stream and is within the floodplain. The stream has been highly modified. Soils have high organic content. Fluvial entisol with aquatic moisture regime. Strong hydrophytic vegetation and hydrology and geomorphic position support the determination of wetland.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input checked="" type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input checked="" type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input checked="" type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 checked="" 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>

**Field Observations:**

Surface Water Present?      Yes       No       Depth (inches):           

Water Table Present?      Yes       No       Depth (inches): 7

Saturation Present?      Yes       No       Depth (inches): surface

(includes capillary fringe)

**Wetland Hydrology Present?**      Yes       No

**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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/14/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-12-SP2  
 Investigator(s): S. Krueger, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.307101 Long: -122.302950 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 Upland SP for WFW-12. Located on fill slope near stream bench between OHWM flag LB36 and 37.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>1m</u> )				
1. <u>Rubus armeniacus</u>		1%	No	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
1% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>1m</u> )				
1. <u>Barbarea vulgaris</u>		5%	Yes	FAC	
2. <u>Festuca rubra</u>		2%	Yes	FAC	
3. <u>Ranunculus repens</u>		1%	no	FAC	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
8% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>1m</u> )				
1. <u>none</u>					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <u>92%</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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-11	10YR 4/3	99	10YR 6/6	<1	C	M	GrL	
11-16	10YR 4/3	100					Sa	sm-med gravel

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

<sup>3</sup>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)

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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**Restrictive Layer (if present):**

Type: none

Depth (inches): n/a

**Hydric Soil Present?**      Yes             No   X  

**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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>

**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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/26/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-13-SP1  
 Investigator(s): A. Thom, A. Hoenig Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.302502 Long: -122.302818 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 PSS wetland SP in middle of ditch, which runs north-south parallel to I-5. It is located southeast of S 333rd St.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>85cm^2</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>85cm^2</u> )				
1. <u>Rubus armeniacus</u>		5%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		5% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>85cm^2</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
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>85cm x 1m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-8	10YR 3/2	100					L	cobble and gravel
8-14	10YR 4/1	85	7.5YR 4/6	5	C	M	SaL	gravel
14-17	2.5Y 6/1	70	7.5YR 4/4	30	C	M	C	gravel

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

<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>clay and gravel compacted</u> Depth (inches): <u>17</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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 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 checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<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)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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>8</u>	
(includes capillary fringe)	

**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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 11/26/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-13-SP2  
 Investigator(s): A. Hoenig, M. Murphy Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.302510 Long: -122.302856 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 Upland SP for WFW-13. Located west of SP-1 and west of the wetland within the WSDOT I-5 ROW.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: $r=3m^2$ )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
5. _____		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: $r=2m^2$ )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^1$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		100%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____		100% = Total Cover			
<u>Herb Stratum</u>	(Plot size: $r=1m^2$ )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Polystichum munitum</u>		25%	Yes	FACU	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____		25% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: $r=2m^2$ )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>75%</u>					

**Remarks:**

<b>SOIL</b>								Sampling Point: <b>WFW-13-SP2</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/1	100					SaL	
4-8	10YR 4/2	100					GSaL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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):**

<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 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)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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)

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

<b>Restrictive Layer (if present):</b> Type: <u>gravel</u> Depth (inches): <u>8"</u>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Remarks:**  
 dense gravel starts at 4", cannot excavate below 8"

<b>HYDROLOGY</b>		
<b>Wetland Hydrology Indicators:</b>		
<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"/> 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)	<u>Secondary Indicators (2 or more required)</u> <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)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way/King Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-14-SP1  
 Investigator(s): \_\_\_\_\_ Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.301029 Long: -122.304361 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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 x, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit in December.

**Remarks:**  
 PEM wetland SP positioned in a swale that conveys water stormwater from the condo complex south to the East Fork Hylebos Creek Trib 0016A through a pipe. Vegetation is regularly maintained.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
5. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
0% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Poa pratensis</u>		<u>55%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Ranunculus repens</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
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>					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-3	10YR 4/2	100					L	
3-13	2.5Y 4/2	90	7.5YR 5/8	10	C	M/PL	SaL	oxidiz. Rhizo.; cobbles

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b>	<b>Hydric Soil Present?</b>
Type: <u>cobbles compaction</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): <u>13</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) (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"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
	<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)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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:**  
 SP in swale that receives stormwater input. Oxidized rhizospheres at 3"

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

Project/Site: OMFS and TDLE City/County: Federal Way/King Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-14-SP2  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.300974 Long: -122.304379 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No x  
 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>
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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit in December.

**Remarks:**  
 Upland SP to WFW-14. Located to the east of SP-1 and east of the wetland. It is uplope of the swale. Vegetation regularly maintained and mowed.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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.					
5.					
<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.					
3.					
4.					
5.					
<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>50%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Pteridium aquilinum</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
<u>60%</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					
<b>% Bare Ground in Herb Stratum</b> <u>40%</u>					

**Remarks:**  
 vegetation regularly maintained and mowed.

SOIL							Sampling Point:	WFW-14-SP2
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 <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2	10YR 3/3	100					CL	
2-4	10YR 4/6	100					CL	
4-11	2.5Y 5/3	97	2.5Y 5/4	3	C	M	GrCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>compaction</u> Depth (inches): <u>11</u>	<b>Hydric Soil Present?</b> Yes _____      No <u>X</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"/> 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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way/King Sampling Date: 12/3/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-14-SP3  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.300822 Long: -122.304254 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	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 in December.

**Remarks:**  
 Upland SP in slight depression north of S 336th St, east of wetland WFW-14, and west of the apartment building cross road.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	<u>Alnus rubra</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		<u>100%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.	<u>Acer circinatum</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Rubus armeniacus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		<u>80%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.	<u>none</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>100%</u>					

**Remarks:**  
 leaf litter covering ground

SOIL							Sampling Point:	WFW-14-SP3
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 <sup>1</sup>	Loc <sup>2</sup>		
0-17	10YR 2/2	100					L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :		
<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)				

<b>Restrictive Layer (if present):</b>	<b>Hydric Soil Present?</b>	<b>Yes</b> _____	<b>No</b> <u>  X  </u>
Type: none _____			
Depth (inches): n/a _____			

**Remarks:**  
 No redoximorphic features were detected. No assumption of hydric soil because only supported by moderate hydrophytic vegetation but lacks wetland hydrology and geomorphic position.

**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"/> 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"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
	<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)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>	<b>Yes</b> _____	<b>No</b> <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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/5/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-15-SP1  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.301297 Long: -122.303442 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 PFO wetland SP is positioned on a terrace to the east of East Hylebos Creek Trib 0016A

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</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>60%</u> (A/B)
1. <u>Alnus rubra</u>		<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					
4. _____					
		<u>90%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Prevalence Index worksheet:</b> 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>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus armeniacus</u>		<u>15%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Rubus ursinus</u>		<u>15%</u>	<u>Yes</u>	<u>FACU</u>	
4. _____					
5. _____					
		<u>70%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> 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>Hedera helix</u>		<u>100%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____					
		<u>100%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-11	10YR 2/2	100					GrCL	
11-17	5Y 5/2	70	10YR 5/6	25	C	M	C	
			7.5YR 5/8	5	C	M		

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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)	

<b>Field Observations:</b> 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 checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>11"</u>	<b>Wetland Hydrology Present?</b> 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: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 12/5/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-15-SP2  
 Investigator(s): T. Parry, A. Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.301291 Long: -122.303605 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 0 to 8 percent slopes - AgB - 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 _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in November.

**Remarks:**  
 SP is positioned above a stream terrace to the east.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>33%</u> (A/B)
1. <u>Alnus rubra</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					
4. _____					
		<u>100%</u> = Total Cover			
<b><u>Sapling/Shrub Stratum</u></b>	(Plot size: <u>r=2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus spectabilis</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Sambucus racemosa</u>		<u>30%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Rubus ursinus</u>		<u>25%</u>	<u>Yes</u>	<u>FACU</u>	
4. <u>Rubus armeniacus</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
5. <u>Ilex aquifolium</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
		<u>105%</u> = Total Cover			
<b><u>Herb Stratum</u></b>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Polystichum munitum</u>		<u>15%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>15%</u> = Total Cover			
<b><u>Woody Vine Stratum</u></b>	(Plot size: <u>r=2m</u> )				
1. <u>Hedera helix</u>		<u>50%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____					
		<u>50%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-13	10YR 2/2	100					L	
13-17	10YR 3/3	95	7.5YR 4/6	5	C	M	CL	

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

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

<p><b>Field Observations:</b></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><b>Wetland Hydrology Present?</b></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:**

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 3/2/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-16-SP1**  
 Investigator(s): Kaylee Moser, Adam Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Slope of ditch Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.313703 Long: -122.299546 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 6 to 15 percent slopes - AmC - 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         , Soil         , or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>        </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in March.

**Remarks:**  
 Sample point is located in a vegetated roadside ditch west of on ramp to I-5 South. This sample point is a palustrine emergent sample point for WFW-16.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>					
<b>Sapling/Shrub Stratum</b> (Plot size: <u>2x1m</u> )		0% = Total Cover			
1. <u>none</u>					
2. <u>        </u>					
3. <u>        </u>					
4. <u>        </u>					
5. <u>        </u>					
<b>Herb Stratum</b> (Plot size: <u>1x1m</u> )		0% = Total Cover			
1. <u>Festuca rubra</u>		50%	Yes	FAC	
2. <u>Juncus effusus</u>		40%	Yes	FACW	
3. <u>Poa pratensis</u>		30%	Yes	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>					
<b>Woody Vine Stratum</b> (Plot size: <u>2x1m</u> )		120% = Total Cover			
1. <u>none</u>					
2. <u>        </u>					
<b>% Bare Ground in Herb Stratum</b>		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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	2.5Y 3/2	100					SiL	
7-16	2.5Y 5/1	85	10YR 4/6	15	C	M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>gravelly silty clay loam-compacted</u> Depth (inches): <u>7</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) (except 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"/> 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 checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> 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 checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u>	<b>Wetland Hydrology Present?</b> 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:**  
 Saturation between 5-7" on top of restrictive layer. Episaturated conditions.

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 3/2/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-16-SP2**  
 Investigator(s): Kaylee Moser, Adam Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Midslope of ditch Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.313706 Long: -122.299526 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 6 to 15 percent slopes - AmC - 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 _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in March.

**Remarks:**  
 This sample point is the upland paired SP with WFW-16-SP1. It occurs upslope and east of WFW-16-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
		<u>0%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		<u>0%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Poa pratensis</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Dactylis glomerata</u>		<u>30%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Holcus lanatus</u>		<u>15%</u>	<u>No</u>	<u>FAC</u>	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>95%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>none</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-10	10YR 3/2	100					GrSaL	
10-16	10YR 4/2	90	10YR 4/6	10	C	M	GrSaL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>compacted layer - road fill - gravel</u> Depth (inches): <u>10</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
Soils are heavily compacted at 10 inches below the surface.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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"/> 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"/> Sparsely Vegetated Concave Surface (B8)	

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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:**  
soils dry throughout profile

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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 3/2/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-16-SP3**  
 Investigator(s): Kaylee Moser, Adam Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.313112 Long: -122.299995 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 6 to 15 percent slopes - AmC - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in March.

**Remarks:**  
 PSS wetland SP. SP located north of NE park and ride parking lot and ~100ft west of tower

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <u>none</u>					
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>100%</u> (A/B)
		<u>0%</u>	= Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2x1m</u> )				<b>Prevalence Index worksheet:</b>
1. <u>Rubus armeniacus</u>		<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Spiraea douglasii</u>		<u>40%</u>	<u>Yes</u>	<u>FACW</u>	OBL species _____ x 1 = _____
3. <u>Robinia pseudoacacia</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	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>1x1m</u> )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Ranunculus repens</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Juncus effusus</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	<u>X</u> <u>2</u> - Dominance Test is >50%
3. <u>Poa pratensis</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	<u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>
4. <u>Typha latifolia</u>		<u>10%</u>	<u>No</u>	<u>OBL</u>	<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____					<u>5</u> - Wetland Non-Vascular Plants <sup>1</sup>
6. _____					Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____					
9. _____					
10. _____					
11. _____					
		<u>90%</u>	= Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: <u>2x1m</u> )				<b>Hydrophytic Vegetation Present?</b>
1. <u>none</u>					
2. _____					
		<u>0%</u>	= Total Cover		
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	2.5YR 3/2	100					SiL	
6-16	2.5YR 4/1	85	10YR 4/6	15	C	M	GrSiL	

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

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

<b>Field Observations:</b> 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>9</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	<b>Wetland Hydrology Present?</b> 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:**  
 Surface water was observed both upslope and downslope of this sample point.



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

Project/Site: OMFS and TDLE City/County: Federal Way, King County Sampling Date: 3/2/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-16-SP4**  
 Investigator(s): Kaylee Moser, Adam Thom Section, Township, Range: T21N R04E S16  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.313068 Long: -122.300005 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Arents, Alderwood material, 6 to 15 percent slopes - AmC - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in March.

**Remarks:**  
 Sample point is located 1 foot north of park and ride curb. Upland sample point to WFW-16-SP3. Remainder of grass strip south of fence determined wetland area. No wetland hydrology at this location despite wetter than normal conditions.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <u>none</u>					
2. <u>          </u>					Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. <u>          </u>					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. <u>          </u>					<b>Prevalence Index worksheet:</b>
5. <u>          </u>					
0% = Total Cover					OBL species <u>          </u> x 1 = <u>          </u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>2x1m</u> )					FACW species <u>          </u> x 2 = <u>          </u>
1. <u>none</u>					FAC species <u>          </u> x 3 = <u>          </u>
2. <u>          </u>					FACU species <u>          </u> x 4 = <u>          </u>
3. <u>          </u>					UPL species <u>          </u> x 5 = <u>          </u>
4. <u>          </u>					Column Totals: <u>          </u> (A) <u>          </u> (B)
5. <u>          </u>					Prevalence Index = B/A = <u>          </u>
0% = Total Cover					<b>Hydrophytic Vegetation Indicators:</b>
<b>Herb Stratum</b> (Plot size: <u>1x1m</u> )					
1. <u>Poa pratensis</u>		<u>85%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Stellaria media</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Draba verna</u>		<u>5%</u>	<u>No</u>	<u>NOL</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>					
110% = Total Cover					
<b>Woody Vine Stratum</b> (Plot size: <u>2x1m</u> )					
1. <u>none</u>					
2. <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			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	10YR 2/1	100					L	
7-10	2.5Y 5/2	98	10YR 4/4	2	C	M	GrL	
10+								compacted

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>highly compacted gravelly loam</u> Depth (inches): <u>10</u>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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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) (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"/> Sparsely Vegetated Concave Surface (B8)	

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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:**  
dry to 10" BGS. No wetland hydrology despite wetter than normal conditions.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 2/27/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-17-SP1  
 Investigators: STORY Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Channel Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.292095 Long: -122.307587 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot meets 3 of 3 criteria, is located in wetland WFW-17.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>    4    </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>100</u> (A/B)
1. <u>Alnus rubra</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus balsamifera</u>	<u>30</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>60</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>    </u> x2= <u>    0    </u> FAC species <u>137</u> x3= <u>411</u> FACU species <u>    </u> x4= <u>    0    </u> UPL species <u>    </u> x5= <u>    0    </u> Column Totals: <u>137</u> (A) <u>411</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.00</u>
1. <u>Rubus spectabilis</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rosa pisocarpa</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
3. <u>Rubus armeniacus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>70</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)				
1. <u>Ranunculus repens</u>	<u>7</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>	
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>7</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>93</u>		% Cover of Biotic Crust <u>    </u>		<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-17-SP1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-11	10YR 3/2	100					Silt Loam	
11-18	10YR 4/1	90	10YR 4/6	10	C	M	Silt Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	

<sup>3</sup>Indicators 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

**Remarks:**

Sample plot meets hydric soil indicator A11, depleted below dark surface.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_ 1.0  
 Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_ 0.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

Sample plot meets wetland hydrology indicators for saturation and high water table.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 12/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-17-SP2  
 Investigators: Danielski, Story Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 2  
 Subregion (LRR): A Lat: 47.292091 Long: -122.307617 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot has 2 of 3 wetland indicators and lacks hydric soil; plot not located in a wetland. Upland sample plot for WFW-17. Site visit occurred outside of growing season. During the site visit, leaves had already dropped, and WETS table for Seattle Tacoma Airport, WA Station states that the median growing season occurs from 2/9 to 12/13.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100</u> (A/B)
1. <u>Populus balsamifera</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Alnus rubra</u>	<u>45</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>95</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>    </u> x2= <u>0</u> FAC species <u>195</u> x3= <u>585</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>195</u> (A) <u>585</u> (B)
1. <u>Lonicera involucrata</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus spectabilis</u>	<u>50</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>100</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)				Prevalence Index = B/A = <u>3.00</u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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>    </u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>100</u>		% Cover of Biotic Crust <u>    </u>		

Remarks:  
 Sample plots meets dominance test and prevalence index for hydrophytic vegetation. Hydrophytic species found in plot are primarily deep-rooted tree and shrub species that have access to a deeper water table.

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 2/2	100					Sandy Loam	
7-9	10YR 5/1	95	10YR 4/6	5	C	M	Sandy Loam	
9-15	10YR4/4	100					Sandy Loam	

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

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<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 MLRLA 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)		<sup>3</sup> 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)		

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

Remarks:  
Gravels throughout. Sample plot lacks hydric soil indicators. Since the layer with depleted matrix is only 2 inches thick and starts at 7 inches, soil does not meet minimum thickness or depth requirements to qualify for hydric soil indicators A11 (depleted below dark surface) or F3 (depleted matrix). Soil below the depleted matrix is also very bright (4/4).

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		

<b>Field Observations:</b>	
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ 6.0	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ 2.0 (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____

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

Remarks:  
Saturated at 2, water table present at 6. Sample plot meets primary hydrology indicators for high water table and saturation.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 2/27/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-18-SP1  
 Investigators: STORY Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Channel Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.292809 Long: -122.306519 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot meets 3 of 3 criteria, is located in wetland WFW-18.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. <u>Alnus rubra</u>	15	Yes	FAC	Number of Dominant Species	
2. <u>    </u>				That Are OBL, FACW, or FAC: <u>4</u> (A)	
3. <u>    </u>				Total Number of Dominant	
4. <u>    </u>				Species Across All Strata: <u>4</u> (B)	
	15	= Total Cover		Percent of Dominant Species	
				That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b>	
1. <u>Rubus spectabilis</u>	15	Yes	FAC	<u>Total % Cover of:</u> <u>Multiply by:</u>	
2. <u>Rubus armeniacus</u>	5	Yes	FAC	OBL species	x1= <u>    </u>
3. <u>    </u>				FACW species	<u>40</u> x2= <u>80</u>
4. <u>    </u>				FAC species	<u>35</u> x3= <u>105</u>
5. <u>    </u>				FACU species	x4= <u>0</u>
	20	= Total Cover		UPL species	x5= <u>0</u>
				Column Totals:	<u>75</u> (A) <u>185</u> (B)
				<i>Prevalence Index = B/A=</i> <u>2.47</u>	
<u>Herb Stratum</u> (Plot size: 1m)				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Phalaris arundinacea</u>	40	Yes	FACW	<u>    </u> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>    </u>				<u>X</u> 2 - Dominance Test is >50%	
3. <u>    </u>				<u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
4. <u>    </u>				<u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide	
5. <u>    </u>				data in Remarks or on a separate sheet)	
6. <u>    </u>				<u>    </u> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
7. <u>    </u>				<u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
8. <u>    </u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology	
9. <u>    </u>				must be present, unless disturbed or problematic.	
10. <u>    </u>					
11. <u>    </u>					
	40	= Total Cover			
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b>	
1. <u>    </u>				Yes	<u>X</u> No
2. <u>    </u>					<u>    </u>
		= Total Cover			
% Bare Ground in Herb Stratum	<u>60</u>	% Cover of Biotic Crust			

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: WFW-18-SP1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	100					Silt Loam	
5-18	10YR 4/2	95	10YR 4/6	5	C	M	Silty Clay Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Sample plot meets hydric soil indicator F3, depleted matrix.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes  No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 1.00  
 Water Table Present? Yes  No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 3.0  
 Saturation Present? Yes  No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 0.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  No \_\_\_\_\_

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

**Remarks:**

Sample plot meets wetland hydrology indicators for surface water, saturation and high water table.



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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 12/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-18-SP2  
 Investigators: Danielski Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 2  
 Subregion (LRR): A Lat: 47.292816 Long: -122.306473 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot meets 2 of 3 wetland criteria and lacks hydric soils, is not located in a wetland. Upland plot for WFW 18. Site visit occurred outside of growing season.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</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>60</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species x1= _____ FACW species <u>10</u> x2= <u>20</u> FAC species <u>45</u> x3= <u>135</u> FACU species <u>22</u> x4= <u>88</u> UPL species x5= <u>0</u> Column Totals: <u>77</u> (A) <u>243</u> (B)  <i>Prevalence Index = B/A= 3.16</i>
1. <u>Rubus armeniacus</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Salix scouleriana</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Rubus ursinus</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>60</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 1m)				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Epilobium anagallidifolium</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Polystichum munitum</u>	<u>2</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	<u>17</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>68</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot meets dominance test but not prevalence index for hydrophytic vegetation. Hydrophytic species found in plot are primarily deep-rooted tree and shrub species that have access to a deeper water table.

**SOIL**

Sampling Point: WFW-18-SP2

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 2/2	100					Sandy Loam	
10-16	10YR 3/3	100					Sandy Loam	

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No  X

**Remarks:**

Sample plot lacks hydric soil indicators.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  X Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 12.0  
 Saturation Present? Yes  X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 4.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes  X No \_\_\_\_\_

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

**Remarks:**

Sample plot meets primary hydrology indicators for high water table and saturation.

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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/21/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-21-SP1  
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: T21N R04E S21  
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.288658 Long: -122.308085 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC: - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   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 <u>  X  </u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 WFW-21-SP1 is identified as PSS (paulstrine scrub-shrub) under Cowardin classification. Sample point is located below ordinary high on West Hylebos Creek about 20 feet upstream of culvert outlet within an I-5 cloverleaf.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Prevalence Index worksheet:</b> <u>      </u> 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>		20%	Yes	FAC	
2. <u>Salix scouleriana</u>		10%	Yes	FAC	
3. _____					
4. _____					
5. _____					
		30% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>  </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Solanum dulcamara</u>		40%	Yes	FAC	
2. <u>Veronica americana</u>		30%	Yes	OBL	
3. <u>Poa pratensis</u>		20%	Yes	FAC	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		90% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-10	10YR 3/2	80	7.5YR 4/6	20	C	M	GrL	
10-16	10YR 4/2	95	10YR 4/6	5	C	M	GrL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	<sup>3</sup> 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)	

<b>Restrictive Layer (if present):</b> Type: none _____ Depth (inches): n/a _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
<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 checked="" 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 checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" 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)		

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input checked="" type="checkbox"/> No _____      Depth (inches): 1 _____ Saturation Present?        Yes <input checked="" type="checkbox"/> No _____      Depth (inches): surface _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
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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: TDLE City/County: Federal Way, King County Sampling Date: 2/21/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-21-SP2  
 Investigator(s): J. Wozniak, M. Murphy Section, Township, Range: T21N R04E S21  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.288638 Long: -122.308054 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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         , Soil         , or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>        </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Sample point is located upslope and east of WFW-21-SP1 within an I-5 cloverleaf. Associated with E Fork Hylebos Creek Tributary 0016A. Paired upland SP to WFW-21-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        0        </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>        0%        </u> (A/B)
1.	<u>Populus tremuloides</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Pseudotsuga menziesii</u>	<u>20%</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>	
		<u>60%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )				<b>Prevalence Index worksheet:</b> <u>        </u> 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>Gaultheria shallon</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Rubus ursinus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u>Rubus spectabilis</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
4.	<u>Rubus armeniacus</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		<u>70%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>        </u> 1 - Rapid Test for Hydrophytic Vegetation <u>        </u> 2 - Dominance Test is >50% <u>        </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>        </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes <u>        </u> No <u>X</u>
1.	<u>Geranium robertianum</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Polystichum munitum</u>	<u>20%</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>60%</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			
<b>% Bare Ground in Herb Stratum</b>		<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				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 2/1	100	none				L	
1-9	10YR 3/2	100	none				GrL	
9-15	10YR 4/2	95	10YR 4/6	5	C	M	Very GrL	
15-18	7.5YR 3/4	100					GrL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: none Depth (inches): n/a	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
<b>Primary Indicators (minimum of one required; check all that apply)</b>		
<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)		

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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)	

**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: TDLE City/County: Federal Way, King County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-22-SP1  
 Investigator(s): M. Murphy, A. Thom Section, Township, Range: T21N R04E S21  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.290108 Long: -122.308639 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 PSS wetland SP. SP located in a roadside depression near off-ramp of I-5 south. Headed south on I-5 exit 142 B on east side of off ramp in a roadside "clover leaf".

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100%</u> (A/B)
1. <u>Populus balsamifera</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> 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>10%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Cornus alba</u>	<u>15%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Rubus armeniacus</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>20%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Poa pratensis</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>40%</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				
<b>% Bare Ground in Herb Stratum</b>	<u>60%</u>			

**Remarks:**  
 Spirea located on north and south end of the wetland but not located in plot. 60% of plot is in standing water/ditches.



<b>SOIL</b>							<b>Sampling Point: WFW-22-SP1</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-5	10YR 2/1	100					L
5-11	2.5Y 4/2	98	10YR 4/6	2	C	M	SaGrL
11-15	2.5Y 5/2	80	10YR 5/8	20	C	M	VGrSaL
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> Texture: Sa = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)							
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)				
<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.							
<b>Restrictive Layer (if present):</b>						<b>Hydric Soil Present?</b>	
Type: <u>None</u>						Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Depth (inches): <u>N/A</u>							
<b>Remarks:</b>							
<b>HYDROLOGY</b>							
<b>Wetland Hydrology Indicators:</b>							
<u>Primary Indicators (minimum of one required; check all that apply)</u>				<u>Secondary Indicators (2 or more required)</u>			
<input checked="" 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 checked="" 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 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 checked="" 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)							
<b>Field Observations:</b>						<b>Wetland Hydrology Present?</b>	
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches):	<u>        </u>			
Water Table Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches):	<u>6</u>	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>5</u>			
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>							
<b>Remarks:</b>							



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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-22-SP2  
 Investigator(s): M. Murphy, A. Thom Section, Township, Range: T21N R04E S21  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.290117 Long: -122.308600 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): lerwood gravelly sandy loam, 8 to 15 percent slop - AgC - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 SP-2 is located approximately 10 feet upslope of SP-1. SP is located on the side of a fill prism/WSDOT service road and serves as the upland paired SP to WFW-22-SP1. No wetland hydrology despite wetter than normal conditions.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)
1. <u>Pseudotsuga menziesii</u>		<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Populus balsamifera</u>		<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Thuja plicata</u>		<u>2%</u>	<u>No</u>	<u>FAC</u>	
4. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
		<u>17%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Cytisus scoparius</u>		<u>5%</u>	<u>Yes</u>	<u>NOL</u>	
2. <u>Cornus alba</u>		<u>5%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Pseudotsuga menziesii</u>		<u>2%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Thuja plicata</u>		<u>2%</u>	<u>No</u>	<u>FAC</u>	
5. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
		<u>14%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Lupinus polyphyllus</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Holcus lanatus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Schedonorus arundinaceus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Festuca rubra</u>		<u>10%</u>	<u>No</u>	<u>FAC</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>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>		<u>0%</u>	<u>      </u>	<u>      </u>	
2. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**



<b>SOIL</b>							<b>Sampling Point: WFW-22-SP2</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth (inches)	Matrix		Redox Features			Texture <sup>3</sup>	Remarks
Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-2	10YR 4/2	100				SaL	
3-16	2.5Y 5/2	95	10YR 5/8	5	C	M	Cobbles
16-19	2.5Y 4/3	100				GrSa	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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 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)	<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)
<p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>	

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

**Remarks:**

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**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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"/> 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"/> 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)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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?     Yes <u>  </u> No <u>  X  </u> Depth (inches): <u>  </u> (includes capillary fringe)	

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

**Remarks:**  
soils moist but not saturated. No wetland hydrology despite wetter than normal conditions.

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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/12/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-23-SP1  
 Investigator(s): M. Murphy, P. Johnson Section, Township, Range: T21N R04E S28  
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.281736 Long: -122.309886 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PEM wetland SP. Sample point is located in a roadside ditch west of I-5 and south of mitigation area.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>					
<b>Sapling/Shrub Stratum</b> (Plot size: <u>2x1m</u> )		0% = Total Cover			
1. <u>none</u>					
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
<b>Herb Stratum</b> (Plot size: <u>1x1m</u> )		0% = Total Cover			
1. <u>Agrostis capillaris</u>		89%	Yes	FAC	
2. <u>Plantago lanceolata</u>		5%	No	FACU	
3. <u>Taraxacum officinale</u>		5%	No	FACU	
4. <u>Galium aparine</u>		1%	No	FACU	
5. <u>      </u>					
6. <u>      </u>					
7. <u>      </u>					
8. <u>      </u>					
9. <u>      </u>					
10. <u>      </u>					
11. <u>      </u>					
<b>Woody Vine Stratum</b> (Plot size: <u>2x1m</u> )		100% = Total Cover			
1. <u>none</u>					
2. <u>      </u>					
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>		0% = Total Cover			

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/1	100					L	
2-12	2.5Y 5/2	95	2.5Y 4/4	5	C	M	GrSaL	
12-14+	2.5Y 4/2	95	10YR 4/4	5	CS	M	GrSaL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	<sup>3</sup> 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)	

<b>Restrictive Layer (if present):</b> Type: <u>Road Fill</u> Depth (inches): <u>12</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
SP located on compacted road bed in a manmade ditch

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input checked="" 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"/> Salt Crust (B11)
<input checked="" 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"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<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)

<b>Field Observations:</b> 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>surface</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	<b>Wetland Hydrology Present?</b> 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:**  
surface water present in centerline of ditch

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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/12/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-23-SP2  
 Investigator(s): M. Murphy, P. Johnson Section, Township, Range: T21N R04E S28  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.281687 Long: -122.309923 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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 _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is located in a landscaped roadside shoulder about 16 feet above ditch. This sample point is the paired plot to WFW-23-SP1.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>40%</u> (A/B)
1. <u>Alnus rubra</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>Rosa nutkana</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Holodiscus discolor</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>60%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Eschscholzia californica</u>	<u>35%</u>	<u>Yes</u>	<u>NOL</u>	
2. <u>Stellaria media</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Agrostis capillaris</u>	<u>15%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Senecio vulgaris</u>	<u>15%</u>	<u>No</u>	<u>FACU</u>	
5. <u>Poa pratensis</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>95%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<u>5%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFW-23-SP2	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features			Texture	Remarks	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/1	100					L	
3+	2.5Y 4/4	100					GrSaL	restrictive layer, compact

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>Road Fill</u> Depth (inches): <u>3</u>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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): _____	

**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: TDLE City/County: Federal Way, King County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-24-SP1**  
 Investigator(s): M. Murphy, P. Johnson Section, Township, Range: T21N R04E S29  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Depression \_\_\_\_\_ Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.274656 Long: -122.314846 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PFO wetland SP. Sample point located within a depression that receives stormwater via a highly incised and artificial channel conveying water from the I-5. No outlet was observed. Surrounding vegetation is native and disturbed upland vegetation.

**VEGETATION**

<u>Tree Stratum</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Alnus rubra</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> 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. _____	_____	_____	_____	
<u>10%</u> = Total Cover				
<u>Herb Stratum</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Hydrophytic Vegetation Present?</b> 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>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<u>100%</u>			

**Remarks:**  
 ground cover in water stained leaves.

<b>SOIL</b>						<b>Sampling Point: WFW-24-SP1</b>	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-8	10YR 3/2	100					SIL
8-18	10YR 4/2	80	10YR 4/6	20	C	PL/M	SIL

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<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)		

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

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

**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input checked="" 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 checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" 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 checked="" 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 checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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):		

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

**Remarks:**  
This area was visibly inundated approximately 1 week ago. Observed on past field visit.



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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-24-SP2  
 Investigator(s): M. Murphy, P. Johnson Section, Township, Range: T21N R04E S29  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.274538 Long: -122.314827 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): lerwood gravelly sandy loam, 8 to 15 percent slop - AgC - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is located approximately 20 feet south of WFW24-SP1 and is the paired upland pit to WFW-24-SP1.

**VEGETATION**

<u>Tree Stratum</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b>
(Plot size: <u>r=3m</u> )				
1. <u>Alnus rubra</u>	<u>100%</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. _____	_____	_____	_____	
4. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
<u>100%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u>				<b>Prevalence Index worksheet:</b>
(Plot size: <u>r=2m</u> )				
1. <u>Rubus armeniacus</u>	<u>50%</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>50%</u> = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
<u>Herb Stratum</u>				<b>Hydrophytic Vegetation Indicators:</b>
(Plot size: <u>r=1m</u> )				
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 <sup>1</sup>
4. _____	_____	_____	_____	<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<u>5</u> - Wetland Non-Vascular Plants <sup>1</sup>
6. _____	_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b>
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	Yes <u>X</u> No _____
<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				
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>1</sup>		
0-5	10YR 2/1	100				L	
5-11	10YR 3/2	100				L	
11-16	10YR 3/2	100				GrSaL	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**Remarks:**

**HYDROLOGY**

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

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> Yes _____ No <u> X </u>
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**Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:**

**Remarks:**  
Despite meeting two secondary hydrology indicators, wetland hydrology not likely based on several reasons: lack of hydric soils, landform that drains water too quickly to form wetland conditions, no saturation despite a wetter than normal months of precipitation preceding the fieldwork.

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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-25-SP1  
 Investigator(s): M. Murphy, P. Johnson Section, Township, Range: T21N R04E S32  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.271113 Long: -122.317318 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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>	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 WFW-25-SP1 is located in a localized depression on the west side of I-5 south. A large stormwater pond, located approximately 100 feet to the north, outlets through a drainage swale into WFW-25. This SP is associated with a paulstrine forested community.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>Populus balsamifera</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>		
2. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <u>  Total % Cover of:  </u> <u>  Multiply by:  </u> 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> <u>  (B)  </u> Prevalence Index = B/A = _____	
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____	<u>70%</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>	<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>  4  </u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  5  </u> - Wetland Non-Vascular Plants <sup>1</sup> <u>  </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
2. <u>Oemleria cerasiformis</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>		
3. <u>Rosa nutkana</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		
4. <u>Rubus laciniatus</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>		
5. _____	_____	_____	_____		
_____	<u>95%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )					
1. <u>Polystichum munitum</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>		<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____	<u>10%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )					
1. <u>none</u>	_____	_____	_____		
2. _____	_____	_____	_____		
_____	<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b> <u>  90%  </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 <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/2	100					L	
10-16	10YR 4/1	90	10YR 3/6	10	C	M	L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

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

<b>Field Observations:</b> 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>12</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way, King County Sampling Date: 2/19/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-25-SP2**  
 Investigator(s): M. Murphy, P. Johnson Section, Township, Range: T21N R04E S32  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.271116 Long: -122.317249 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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>	<b>Is the Sampled Area within a Wetland?</b>
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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is the PFO wetland SP for WFW-25-SP1. This point is located within wetland about 1 foot away from standing water.

**VEGETATION**

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>r=3m</u> )				
1. <u>Populus balsamifera</u>	<u>85%</u>	<u>Yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
85% = Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )				
1. <u>Spiraea douglasii</u>	<u>35%</u>	<u>Yes</u>	<u>FACW</u>	<b>Prevalence Index worksheet:</b> 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>Rubus armeniicus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Oemleria cerasiformis</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
60% = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )				
1. <u>Phalaris arundinacea</u>	<u>60%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
60% = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>r=2m</u> )				
1. <u>none</u>	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2. _____	_____	_____	_____	
0% = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<u>40%</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 <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/2	100					L	
7-16	5Y 5/1	75	7.5YR 4/6	25	C	M	L	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
<u>Primary Indicators (minimum of one required; check all that apply)</u>		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input checked="" 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 checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" 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)		

<b>Field Observations:</b> Surface Water Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> Water Table Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Saturation Present?        Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way, King County Sampling Date: 2/18/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-26-SP1  
 Investigator(s): Matt Murphy, Kaylee Moser Section, Township, Range: T21N R04E S28  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.283095 Long: -122.310401 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Upland SP. Sample point is located upslope of the western boundary of Wetland WFW-26. Recently restored area.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Populus balsamifera</u>		<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>25%</u> = Total Cover			
<b>Sapling/Shrub Stratum</b>	(Plot size: <u>r=2m</u> )				
1. <u>Cornus alba</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Oemleria cerasiformis</u>		<u>25%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Populus balsamifera</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Rosa nutkana</u>		<u>15%</u>	<u>No</u>	<u>FAC</u>	
5. <u>Sambucus racemosa</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
		<u>100%</u> = Total Cover			
<b>Herb Stratum</b>	(Plot size: <u>r=1m</u> )				
1. <u>Epilobium ciliatum</u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2. <u>Ranunculus repens</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>65%</u> = Total Cover			
<b>Woody Vine Stratum</b>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-3	10YR 2/1	100					L	
3-16	2.5Y 4/2	60	2.5Y 4/3	10	C	M	GrL	faint concentrations
			10YR 4/1	30	D	M		

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Remarks:**  
Redox concentrations are too faint to meet for indicator F3.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<b>Primary Indicators (minimum of one required; check all that apply)</b>	
<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way, King County Sampling Date: 2/18/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-26-SP2  
 Investigator(s): Matt Murphy, Kaylee Moser Section, Township, Range: T21N R04E S28  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.283131 Long: -122.310326 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): lerwood gravelly sandy loam, 8 to 15 percent slop - AgC - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 PFO wetland SP. Sample point is located on eastern hillslope facing the I-5. Recently restored area/mitigation area.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u>Populus balsamifera</u>		<u>25%</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. _____		_____	_____	_____	<b>Prevalence Index worksheet:</b>	
_____ = Total Cover						Total % Cover of: _____ Multiply by: _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )						
1. <u>Cornus alba</u>		<u>100%</u>	<u>Yes</u>	<u>FACW</u>	OBL species _____ x 1 = _____	
2. _____		_____	_____	_____	FACW species _____ x 2 = _____	
3. _____		_____	_____	_____	FAC species _____ x 3 = _____	
4. _____		_____	_____	_____	FACU species _____ x 4 = _____	
5. _____		_____	_____	_____	UPL species _____ x 5 = _____	
_____ = Total Cover					Column Totals: _____ (A) _____ (B)	
Prevalence Index = B/A = _____						
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )						
1. <u>none</u>		_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
2. _____		_____	_____	_____		1 - Rapid Test for Hydrophytic Vegetation
3. _____		_____	_____	_____		X 2 - Dominance Test is >50%
4. _____		_____	_____	_____		3 - Prevalence Index is ≤3.0 <sup>1</sup>
5. _____		_____	_____	_____		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
6. _____		_____	_____	_____		5 - Wetland Non-Vascular Plants <sup>1</sup>
7. _____		_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
8. _____		_____	_____	_____		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
9. _____		_____	_____	_____		
10. _____		_____	_____	_____		
11. _____		_____	_____	_____		
_____ = Total Cover					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____	
<b>Woody Vine Stratum</b> (Plot size: <u>r=2m</u> )						
1. <u>none</u>		_____	_____	_____		
2. _____		_____	_____	_____		
_____ = Total Cover						
<b>% Bare Ground in Herb Stratum</b> <u>100%</u>						

**Remarks:**  
 Bare ground contained leaf litter spread throughout.

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10YR 2/1	100					L	
6-10	2.5Y 5/2	60	2.5Y 5/1	30	D	M	GrL	
			10YR 4/6	10	C	M		
10-16	2.5Y 6/2	60	7.5YR 4/6	40	C	M	SiCL	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>Compacted Clay</u> Depth (inches): <u>10</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No _____
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<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 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)	

<b>Field Observations:</b> Surface Water Present?      Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present?      Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present?      Yes <u>X</u> No _____      Depth (inches): <u>3</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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**Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:**

**Remarks:**  
 The restrictive layer present at 10 inches caused water to pond. No water table detected, but because saturation does not need to be connected to water table, as per US COE Delineation Manual: Western Mountain Valley and Coast Region, wetland hydrology criteria are met.

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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/18/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-26-SP3  
 Investigator(s): Matt Murphy, Kaylee Moser Section, Township, Range: T21N R04E S28  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.283063 Long: -122.310548 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Sample point is located on the edge of the restoration area and cleared lot, NE from the cul-de-sac entrance.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Populus balsamifera</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>		<b>Prevalence Index worksheet:</b> 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>Alnus rubra</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>		
3. _____		_____	_____	_____		
4. _____		_____	_____	_____		
		<u>40%</u>	= Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Cornus alba</u>		<u>50%</u>	<u>Yes</u>	<u>FACW</u>		
2. <u>Oemleria cerasiformis</u>		<u>30%</u>	<u>Yes</u>	<u>FACU</u>		
3. <u>Symphoricarpos albus</u>		<u>20%</u>	<u>No</u>	<u>FACU</u>		
4. <u>Alnus rubra</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>		
5. <u>Pseudotsuga menziesii</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>		
		<u>115%</u>	= Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status		<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Agrostis capillaris</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>		
2. <u>Poa pratensis</u>		<u>15%</u>	<u>No</u>	<u>FAC</u>		
3. <u>Tolmiea menziesii</u>		<u>5%</u>	<u>No</u>	<u>FAC</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> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>none</u>		_____	_____	_____		
2. _____		_____	_____	_____		
		<u>0%</u>	= Total Cover			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-3	10YR 3/2	100					L	
3-7	2.5Y 4/3	90	10YR 3/6	10	C	M	GrL	
7-14	10YR 3/3	95	10YR 4/6	5	C	M	GrL	
14-18	10YR 3/4	100					GrL	

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b></p> <p>Yes <input type="checkbox"/> No <input checked="" 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"/> 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"/> Drainage Patterns (B10)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)
	<input type="checkbox"/> Other (Explain in Remarks)

<p><b>Field Observations:</b></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><b>Wetland Hydrology Present?</b></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:**

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

Project/Site: TDLE City/County: Federal Way, King County Sampling Date: 2/6/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-27-SP1  
 Investigator(s): K. Moser, M. Murphy Section, Township, Range: T21N R04E S28  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.282754 Long: -122.310158 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is located along western edge of WFW-27. Sample point is in the PFO Cowardin class.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1x3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>    3    </u> (A)
1. <u>Alnus rubra</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>    </u>		<u>    </u>	<u>    </u>	<u>    </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
3. <u>    </u>		<u>    </u>	<u>    </u>	<u>    </u>	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: <u>    </u>
4. <u>    </u>		<u>    </u>	<u>    </u>	<u>    </u>	
		<u>50%</u> = Total Cover			FACW species <u>    </u> x 2 = <u>    </u>
<b>Sapling/Shrub Stratum</b>					FAC species <u>    </u> x 3 = <u>    </u>
1. <u>Rubus armeniacus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	FACU species <u>    </u> x 4 = <u>    </u>
2. <u>Populus balsamifera</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	UPL species <u>    </u> x 5 = <u>    </u>
3. <u>Thuja plicata</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	Column Totals: <u>    </u> (A) <u>    </u> (B)
4. <u>Alnus rubra</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index = B/A = <u>    </u>
5. <u>    </u>		<u>    </u>	<u>    </u>	<u>    </u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
		<u>70%</u> = Total Cover			
<b>Herb Stratum</b>					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>none</u>	(Plot size: <u>1x1m</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			
<b>Woody Vine Stratum</b>					
1. <u>none</u>	(Plot size: <u>2x1m</u> )	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>		<u>    </u>	<u>    </u>	<u>    </u>	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>100%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFW-27-SP1
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture
0-6	10YR 2/1	100					L
6-15	2.5YR 5/2	90	10YR 5/4	10	C	M	SiL

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required: check all that apply)</b> <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"/> Salt Crust (B11) <input checked="" 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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input checked="" type="checkbox"/> No _____      Depth (inches): 1 _____ Saturation Present?        Yes <input checked="" type="checkbox"/> No _____      Depth (inches): surface _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
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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: TDLE City/County: Federal Way, King County Sampling Date: 2/6/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-27-SP2  
 Investigator(s): K. Moser, M. Murphy Section, Township, Range: T21N R04E S28  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.282741 Long: -122.310151 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 percent slopes - AgC - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point 2 is the paired upland plot associated with WFW-27. It is located on the fill pad for the tower structure.

**VEGETATION**

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
(Plot size: <u>! =3m</u> )				
1. <u>Populus balsamifera</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: <u>4</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>100%</u> (A/B)
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<b>Prevalence Index worksheet:</b>
	<u>40%</u> = Total Cover			Total % Cover of: <u>      </u> Multiply by: <u>      </u>
<b>Sapling/Shrub Stratum</b>				OBL species <u>      </u> x 1 = <u>      </u>
(Plot size: <u>! =2m</u> )				FACW species <u>      </u> x 2 = <u>      </u>
1. <u>Alnus rubra</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	FAC species <u>      </u> x 3 = <u>      </u>
2. <u>Rubus armeniacus</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	FACU species <u>      </u> x 4 = <u>      </u>
3. <u>Thuja plicata</u>	<u>10%</u>	<u>No</u>	<u>FAC</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>
	<u>70%</u> = Total Cover			<b>Hydrophytic Vegetation Indicators:</b>
<b>Herb Stratum</b>				<u>      </u> 1 - Rapid Test for Hydrophytic Vegetation
(Plot size: <u>! =1m</u> )				<u>X</u> 2 - Dominance Test is >50%
1. <u>Agrostis sp</u>	<u>90%</u>	<u>Yes</u>	<u>FAC*</u>	<u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup>
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
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			
<b>Woody Vine Stratum</b>				
(Plot size: <u>! =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			
<b>% Bare Ground in Herb Stratum</b>	<u>10%</u>			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>

**Remarks:**  
 \*presumed FAC

<b>SOIL</b>							<b>Sampling Point: WFW-27-SP2</b>	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-7	2.5YR 4/1	100					L	
7-9	2.5YR 4/1	95	10YR 4/4	5	C	M	SaL	
9+	compacted						GrSaL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>severely compacted soils</u> Depth (inches): <u>9</u>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Remarks:**  
 Sample pit was collected on a compacted fill pad. This area is not wetland; it has been graded and flattened to support the communications tower located adjacent to the site. Although there are some redox features in the fill material, immediately above the compacted layer, the lack of wetland hydrology or water table suggests this color transformation is not due to hydric soil processes.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<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)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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>top 2" only</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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:**  
 Recent heavy precipitation caused near surface saturation (only top 2", not below). However, despite a restrictive layer at 9", no water table was observed..



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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: May 18, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-34-SP1  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.280983 Long: -122.322540 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Everett-Alderwood gravelly sandy loams - EwC - None NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If no, explain in Remarks)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland Sampling Point (SP); paired with WFW-34-SP2.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
1. <u>Alnus rubra</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Salix lasiandra</u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	
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>	
		<u>45%</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: <u>      </u> Multiply by: <u>      </u>
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	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>Salix lasiandra</u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Rubus spectabilis</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	1 - Rapid Test for Hydrophytic Vegetation <u>      </u> X 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <u>      </u> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
3. <u>Rubus armeniacus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>
5. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
		<u>140%</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>20%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Urtica dioica</u>		<u>5%</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>	
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>25%</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			
<b>% Bare Ground in Herb Stratum</b> <u>75%</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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 18	10 YR 3/2	100					L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 18, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-34-SP2  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.281016 Long: -122.322503 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Everett-Alderwood gravelly sandy loams - EwC - None NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If no, explain in Remarks)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil Y, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO wetland sample point associated with North Fork Hylebos and paired with upland pit WFW-34-SP1. No hydric soil indicators, but dark organics may be masking redox features. Strong hydrophytic vegetation and hydrology indicators support the determination of wetland.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
1. <u>Salix lasiandra</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
3. _____		_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____
4. _____		_____	_____	_____	
		<u>30%</u> = Total Cover			FACW species _____ x 2 = _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				FAC species _____ x 3 = _____
1. <u>Rubus spectabilis</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	FACU species _____ x 4 = _____
2. <u>Salix lasiandra</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	UPL species _____ x 5 = _____
3. <u>Rubus armeniacus</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	Column Totals: _____ (A) _____ (B)
4. _____		_____	_____	_____	Prevalence Index = B/A = _____
5. _____		_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
		<u>70%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		<u>90%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Equisetum telmateia</u>		<u>10%</u>	<u>No</u>	<u>FACW</u>	
3. <u>Urtica dioica</u>		<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>105%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-34-SP2</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0 - 18	10 YR 2/1	100					SiL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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 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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
 Soils are dark have high organic content that may mask redox.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input 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)	<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)	<b>Secondary Indicators (2 or more required)</b> <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 checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> 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>Surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 19, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-36-SP1  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.280432 Long: -122.323855 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Everett-Alderwood gravelly sandy loams - EwC - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Seep wetland. PFO wetland sample point.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>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>		40%	Yes	FAC	
2. <u>Rubus spectabilis</u>		10%	Yes	FAC	
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		50% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. <u>Ranunculus repens</u>		80%	Yes	FAC	
2. <u>Equisetum telmateia</u>		20%	Yes	FACW	
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>					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>None</u>					
2. <u>      </u>					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-36-SP1</b>	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 14	2.5 Y 3/1	85	7.5 YR 4/6	15	C	M,PL	SaCIL	
14 -16	2.5 Y 3/1	75	5 YR 4/6	25	C	M	SaCIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>	
<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 checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" 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)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b>
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>  9  </u>	
Saturation Present? (includes capillary fringe)      Yes <u>  X  </u> No <u>      </u>	Depth (inches): <u>  2  </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: TDLE City/County: Federal Way / King County Sampling Date: May 19, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-36-SP2**  
 Investigator(s): Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.280410 Long: -122.323928 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Everett-Alderwood gravelly sandy loams - EwC - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland sampling point paired with WFW-34-SP1 located 2 feet in elevation above SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
1. <u>Alnus rubra</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Aesculus hippocastanum</u>		<u>40%</u>	<u>        </u>	<u>NOL</u>	
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>	
		<u>100%</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: <u>        </u> Multiply by: <u>        </u>
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	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>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus armeniacus</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
3. <u>Sambucus racemosa</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>65%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>        </u> X 2 - Dominance Test is >50% <u>        </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>        </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <u>        </u> <sup>1</sup> 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>Oemleria cerasiformis</u>		<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Polystichum munitum</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Equisetum telmateia</u>		<u>5%</u>	<u>No</u>	<u>FACW</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>65%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> 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			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 13	10 YR 2/2	100					SiL	
13 - 17	2.5 Y 5/2	95	7.5 YR 4/6	5	C	M	C	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b> Yes <u>      </u> No <u>  X  </u>
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>  17  </u>	
Saturation Present? (includes capillary fringe)	Yes <u>  X  </u> No <u>      </u> Depth (inches): <u>  13  </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: TDLE City/County: Federal Way / King County Sampling Date: May 19, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-36-SP3  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: ?  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: ? Long: ? Datum: NAD 83  
 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PEM WL within WFW-36, close to South Pacific Highway (1-2 feet from road).

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m x 1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>2m x 1m</u> )				<b>Prevalence Index worksheet:</b> 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>1m x 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Phalaris arundinacea</u>		95%	Yes	FACW	
2. <u>Equisetum telmateia</u>		10%	No	FACW	
3. <u>Galium aparine</u>		5%	No	FACU	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		110% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2m x 1m</u> )				
1. <u>None</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-36-SP3</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0 - 9	10 YR 2/1	100					SiL
9 - 16	2.5 Y 3/1	80	7.5 Y 4/6	20	C	M	GrSaL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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 checked="" 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 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 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)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b>
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 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>Surface</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: TDLE City/County: Federal Way / King County Sampling Date: May 19, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-36-SP4  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: ?  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: ? Long: ? Datum: NAD 83  
 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland paired plot with SP3; 2.5 feet above WFW-36.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
1. <u>Alnus rubra</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
3. _____					<b>Prevalence Index worksheet:</b> 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 = _____
4. _____					
		<u>100%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus armeniacus</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					
4. _____					
5. _____					
		<u>100%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>100%</u>			

**Remarks:**



<b>SOIL</b>							<b>Sampling Point: WFW-36-SP4</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0 - 16	10 YR 2/2	100					GrSaL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <u>      </u> No <u>  X  </u>
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**Remarks:**  
 Lots of roots from Alnus rubra were observed.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<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)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-37-SP1  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.269634 Long: -122.331682 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Sample point within WFW-37; PFO coveardin.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>Prunus emarginata</u>		<u>50%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____					
3. _____					
4. _____					
		<u>50%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				<b>Prevalence Index worksheet:</b> 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>      </u> (A) <u>      </u> (B) Prevalence Index = B/A = _____
1. <u>Rubus armeniacus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					
4. _____					
5. _____					
		<u>20%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Athyrium cyclosum</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Solanum dulcamara</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Equisetum telmateia</u>		<u>15%</u>	<u>No</u>	<u>FACW</u>	
4. <u>Phalaris arundinacea</u>		<u>10%</u>	<u>No</u>	<u>FACW</u>	
5. <u>Cardamine oligosperma</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>95%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>None</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>5%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-37-SP1</b>	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 4	2.5 Y 3/1	100					SiL	With organics
4 - 11	5 GY 3/1	95	10 YR 4/3	5	C	M	SiL	
11 - 16	5 G 4/2	90	10 YR 5/6	10	C	PL, M	SiC	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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 checked="" 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)				

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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 checked="" 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 checked="" 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 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)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>
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>Surface</u>	
(includes capillary fringe)		

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

**Remarks:**  
 Oxidized rhizospheres along living roots at 11 inches below surface.

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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-37-SP2**  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.269646 Long: -122.331709 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - Hydric 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   N  , Soil   N  , or Hydrology   N   significantly disturbed? Are "Normal Circumstances" present? Yes   X   No         
 Are Vegetation   N  , Soil   N  , or Hydrology   N   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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Fill slope with little vegetation. Paired upland point to WFW-37-SP1

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Prevalence Index worksheet:</b> 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>      </u> (A) <u>      </u> (B) Prevalence Index = B/A = _____
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> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  X  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>  </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Equisetum telmateia</u>		10%	No	FACW	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		10% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>  X  </u> No <u>      </u>
1. <u>None</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>  90%  </u>				

**Remarks:**

<b>SOIL</b>						<b>Sampling Point: WFW-37-SP2</b>		
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 16	10 YR 3/1	100				GrSaL		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<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)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-37-SP3  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): \_\_\_\_\_  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.268127 Long: -122.332824 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - Hydric NWI classification: PFOC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Sample point is PSS cowardin for WFW-37.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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. _____					
5. _____					
<b>Sapling/Shrub Stratum</b> (Plot size: <u>10'</u> )		0% = Total Cover			<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Spiraea douglasii</u>		80%	Yes	FACW	
2. <u>Rosa nutkana</u>		20%	Yes	FAC	
3. _____					
4. _____					
5. _____					
<b>Herb Stratum</b> (Plot size: <u>5'</u> )		100% = Total Cover			
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<b>Woody Vine Stratum</b> (Plot size: <u>10'</u> )		0% = Total Cover			
1. <u>None</u>					
2. _____					
<b>% Bare Ground in Herb Stratum</b> <u>100%</u>		0% = Total Cover			<b>Hydrophytic Vegetation Present?</b> 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 16	10 YR 4/2	70	7.5 YR 5/8	15	C	M	CL	
			2.5 Y 5/1	15	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :
<input type="checkbox"/> Histic Sol (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)	

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

<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b> 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)
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 checked="" 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 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)		

<p><b>Field Observations:</b></p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>        </u></p> <p>Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4</u></p> <p>Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-37-SP4**  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.268143 Long: -122.332848 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland pit approximately 2.50 feet higher than wetland pit. PSS cowardin for WFW-37. Paired upland pit to WFW-37-SP3.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
5. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Spiraea douglasii</u>		50%	Yes	FACW	
2. <u>Rosa nutkana</u>		40%	Yes	FAC	
3. _____					
4. _____					
5. _____					
		90% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
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>10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 16	7.5 YR 2.5/2	100					GrSiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 9, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-37-SP5**  
 Investigator(s): Amanda Weiss and Claire Hoffman Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.269613 Long: -122.330338 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham Silt Loam - Bh - 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Sample point in 2 to 3 feet of standing water in pond feature that is part of the broader wetland. Abrupt edge/pond in residence's backyard. PEM cowardin class.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>10'</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Lonicera involucrata</u>		10%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		10% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Iris pseudacorus</u>		20%	Yes	OBL	
2. <u>Typha angustifolia</u>		20%	Yes	OBL	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		40% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10'</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>60%</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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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 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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
 Sample point located in 2 to 3 feet of standing water of a pond feature that is part of the broader wetland. Inundated soils not observed, presumed hydric based on strong hydrophytic vegetation and wetland hydrology.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input checked="" 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"/> Salt Crust (B11) <input checked="" 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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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 checked="" 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)

<b>Field Observations:</b> Surface Water Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>30</u> Water Table Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> Saturation Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 9, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-37-SP6  
 Investigator(s): Amanda Weiss and Claire Hoffman Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.269668 Long: -122.330416 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham Silt Loam - Bh - 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 SeaTac NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Sample point on mowed, maintained lawn. Paired with SP5

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>10'</u> )				
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )				
1. <u>Poa annua</u>		90%	Yes	FAC	
2. <u>Ranunculus repens</u>		10%	Yes	FAC	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10'</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		0%			

**Remarks:**



SOIL							Sampling Point:	WFW-37-SP6
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 14	2.5 Y 3/1	90	2.5 Y 4/1	10	D	M	SiC	
14 - 16	5 Y 6/1	60	10 YR 6/6	5	C	M	C	
	2.5 Y 4/1	35					C	Mixed-matrix

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> 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"/> 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)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b>
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:



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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: May 24, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-38-SP1  
 Investigator(s): Aaron Thom and Shelby Petro Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.279622 Long: -122.324288 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland SP paired with WFW-38-SP2.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
1. <u>Alnus rubra</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus balsamifera</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____		_____	_____	_____	
		<u>110%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b>					
(Plot size: <u>r = 2m</u> )					
1. <u>Rubus spectabilis</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Rubus armeniacus</u>		<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>25%</u> = Total Cover			
<b>Herb Stratum</b>					
(Plot size: <u>r = 1m</u> )					
1. <u>Equisetum telmateia</u>		<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Carex leptopoda</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Galium aparine</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
5. <u>Stellaria longifolia</u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	
6. <u>Tellima grandiflora</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
7. <u>Phalaris arundinacea</u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	
8. <u>Polystichum munitum</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>155%</u> = Total Cover			
<b>Woody Vine Stratum</b>					
(Plot size: <u>r = 2m</u> )					
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 12	10 YR 2/2	100					L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>Fill, roches, concrete, cobble</u></p> <p>Depth (inches): <u>12</u></p>	<p><b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><b>Primary Indicators (minimum of one required; check all that apply)</b></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>	<p><b>Secondary Indicators (2 or more required)</b></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 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><b>Field Observations:</b></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><b>Wetland Hydrology Present?</b> 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:**

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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: May 24, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-38-SP2  
 Investigator(s): Aaron Thom and Shelby Petro Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.279557 Long: -122.324228 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO wetland paired with WFW-38-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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><i>Alnus rubra</i></u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>100%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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>3</u> (A) <u>3</u> (B) Prevalence Index = B/A = _____
<b><u>Sapling/Shrub Stratum</u></b>	(Plot size: <u>r = 2m</u> )				
1. <u><i>Rubus spectabilis</i></u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u><i>Lonicera involucrata</i></u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>110%</u> = Total Cover			
<b><u>Herb Stratum</u></b>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u><i>Maianthemum dilatatum</i></u>		<u>30%</u>	<u>No</u>	<u>FAC</u>	
2. <u><i>Lysichiton americanus</i></u>		<u>5%</u>	<u>No</u>	<u>OBL</u>	
3. <u><i>Equisetum telmateia</i></u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	
4. <u><i>Athyrium cyclosorum</i></u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>45%</u> = Total Cover			
<b><u>Woody Vine Stratum</u></b>	(Plot size: <u>r = 2m</u> )				
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>55%</u>				<b>Hydrophytic Vegetation Present?</b> 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 18	10 YR 2/1	100					Muck	Greasy

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input checked="" 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 checked="" 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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Salt Crust (B11) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) <input checked="" 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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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 checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> Surface Water Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> Water Table Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Saturation Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: 5/30/2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-39-SP1  
 Investigator(s): Anna Hoenig and Shelby Petro Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.275553 Long: -122.326169 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Shalcar muck - Sm - 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland paned pit.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Alnus rubra</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Populus balsamifera</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
		<u>75%</u> = Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Rubus armeniacus</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Reynoutria japonica</u>	<u>25%</u>	<u>Yes</u>	<u>FACU</u>
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		<u>100%</u> = Total Cover		
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status
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> )	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>None</u>	_____	_____	_____
2.	_____	_____	_____	_____
		<u>0%</u> = Total Cover		
<b>% Bare Ground in Herb Stratum</b>		<u>100%</u>		

<b>Dominance Test worksheet:</b>	
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)
<b>Prevalence Index worksheet:</b>	
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 = _____	

**Hydrophytic Vegetation Indicators:**

X 1 - Rapid Test for Hydrophytic Vegetation  
X 2 - Dominance Test is >50%  
 \_\_\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 \_\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ 5 - Wetland Non-Vascular Plants<sup>1</sup>  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)<sup>1</sup>

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes X 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 16	10 YR 3/2	100					Loam	Cobble, gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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><b>Field Observations:</b></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><b>Wetland Hydrology Present?</b> 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:**

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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: 5/30/2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-39-SP2  
 Investigator(s): Anna Hoenig and Shelby Petro Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.275475 Long: -122.326261 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Shalcar muck - Sm - 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO wetland, paired with SP1

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
1. <u>Alnus rubra</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>100%</u> = Total Cover			Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>Reynoutria japonica</u>		<u>20%</u>	<u>Yes</u>	<u>FACU</u>	<b>Prevalence Index worksheet:</b> 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. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>20%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Carex leptopoda</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Urtica dioica</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
3. <u>Equisetum telmateia</u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	
4. <u>Solanum dulcamara</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>120%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 16	10 YR 2/2	100					Muck	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input checked="" type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span>  <input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span>  <input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span>  <input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span>  <input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span>  <input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span>  <input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span>  <input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><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)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>n/a</u></p>	<p><b>Hydric Soil Present?</b>      Yes <input checked="" type="checkbox"/>      No <input type="checkbox"/></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span>  <input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span>  <input checked="" type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span>  <input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span>  <input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span>  <input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span>  <input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span>  <input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span>  <input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span>  <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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)  <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>

<p><b>Field Observations:</b></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 checked="" type="checkbox"/>    No <input type="checkbox"/>    Depth (inches): <u>Surface</u>          (includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>      Yes <input checked="" type="checkbox"/>      No <input type="checkbox"/></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: TDLE City/County: Federal Way / King County Sampling Date: 5/31/2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-39-SP3  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.277987 Long: -122.324172 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland SP paired with WFW-39-SP4.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
1. <u>Alnus rubra</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus balsamifera</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
3. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
		<u>70%</u> = Total Cover			Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>Corylus cornuta</u>		<u>40%</u>	<u>Yes</u>	<u>FACU</u>	<b>Prevalence Index worksheet:</b> 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>
2. <u>Rubus spectabilis</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Acer circinatum</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Rubus armeniacus</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
5. <u>      </u>		<u>      </u>	<u>      </u>	<u>      </u>	
		<u>100%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Tellima grandiflora</u>		<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Equisetum telmateia</u>		<u>2%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Polystichum munitum</u>		<u>2%</u>	<u>Yes</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>9%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				<b>Hydrophytic Vegetation Present?</b> 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			
<b>% Bare Ground in Herb Stratum</b>		<u>91%</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 <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 10	6 YR 3/2	100					L	
10 - 18	10 YR 4/2	100					L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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>	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: 5/31/2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-39-SP4  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.277976 Long: -122.324113 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO wetland SP, northside of fill.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)
1. <u><i>Alnus rubra</i></u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____					
		<u>80%</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				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><i>Rubus spectabilis</i></u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u><i>Acer circinatum</i></u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
3. <u><i>Rubus armeniacus</i></u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
4. _____					<b>Hydrophytic Vegetation Indicators:</b>
5. _____					
		<u>95%</u> = Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. <u><i>Lysichiton americanus</i></u>		<u>50%</u>	<u>Yes</u>	<u>OBL</u>	
2. <u><i>Maianthemum dilatatum</i></u>		<u>15%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u><i>Equisetum telmateia</i></u>		<u>15%</u>	<u>Yes</u>	<u>FACW</u>	
4. <u><i>Athyrium cyclosorum</i></u>		<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>85%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>none</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>15%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-39-SP4</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0 - 6	10 YR 2/1	100					L
6 - 18	5 Y 4/1	90	7.5 YR 4/6	10	C	PL/M	CL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<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 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)	<b>Secondary Indicators (2 or more required)</b> <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 checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present?    Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present?      Yes <u>X</u> No _____      Depth (inches): <u>14"</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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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: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-42-SP1  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.277202 Long: -122.324969 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland paired SP to WFW-42-SP2.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
1. <u>Populus balsamifera</u>		<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
3. _____		_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____
4. _____		_____	_____	_____	
		<u>25%</u> = Total Cover			FACW species _____ x 2 = _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				FAC species _____ x 3 = _____
1. <u>Rubus armeniacus</u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	FACU species _____ x 4 = _____
2. _____		_____	_____	_____	UPL species _____ x 5 = _____
3. _____		_____	_____	_____	Column Totals: _____ (A) _____ (B)
4. _____		_____	_____	_____	Prevalence Index = B/A = _____
5. _____		_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
		<u>60%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. <u>Phalaris arundinacea</u>		<u>90%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Polystichum munitum</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Galium aparine</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Cirsium arvense</u>		<u>3%</u>	<u>No</u>	<u>FAC</u>	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>113%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WFW-42-SP1	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-6	10 YR 3/2	100					SaL	Gravel
6-16	2.5 Y 4/3	95	2.5 Y 5/6	5	C	M	SaL	Gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>      </u> No <u>  X  </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-42-SP2  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): 0 Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.277254 Long: -122.325009 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PEM wetland SP.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>10'</u> )				
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )				
1. <u>Phalaris arundinacea</u>		100%	Yes	FACW	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10'</u> )				
1. <u>None</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		0%			

**Remarks:**

<b>SOIL</b>							Sampling Point:	WFW-42-SP2
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-10	10 YR 3/2	95	7.5 YR 5/6	5	C	M/PL	SaL	Gravel
10-16	2.5 Y 5/2	95	7.5 RY 5/8	5	C	M	SaL	Gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> 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 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 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 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)		

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

**Remarks:**  
 Flag B8 adjacent.



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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: June 14, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-43-SP1  
 Investigator(s): Amanda Weiss and Anna Hoenig Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.274798 Long: -122.327659 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Norma sandy loam - No - Hydric NWI classification: PFOC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No        (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO wetland. Paired with WFW43-SP2.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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><i>Alnus rubra</i></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>10'</u> )				<b>Prevalence Index worksheet:</b> 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><i>Rubus armeniacus</i></u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u><i>Rosa nutkana</i></u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>50%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u><i>Athyrium cyclosum</i></u>		<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u><i>Equisetum telmateia</i></u>		<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u><i>Solanum dulcamara</i></u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>110%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-43-SP1</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-6	10YR 2/1	100					mucky mineral
6-18	10YR 2/1	95	7.5YR 2.5/3	5	C	M	CL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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 checked="" 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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No <u>      </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input 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)	<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 checked="" 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)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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>  7  </u> Depth (inches): <u>  0  </u>	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: June 14, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-43-SP2  
 Investigator(s): Amanda Weiss and Anna Hoenig Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.274714 Long: -122.327648 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>      </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 WFW43-SP2 is the upland sample point, paired with WFW43-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>      1      </u> (A)
1. <u><i>Acer macrophyllum</i></u>		<u>70%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u><i>Pseudotsuga menziesii</i></u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. <u>      </u>					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>      20%      </u> (A/B)
4. <u>      </u>					
		<u>80%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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>
<b><u>Sapling/Shrub Stratum</u></b>					
(Plot size: <u>10'</u> )					
1. <u><i>Rubus armeniacus</i></u>		<u>25%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>      </u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u><i>Symphoricarpos albus</i></u>		<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u><i>Rosa nutkana</i></u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. <u><i>Rubus ursinus</i></u>		<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
5. <u>      </u>					
		<u>75%</u> = Total Cover			
<b><u>Herb Stratum</u></b>					
(Plot size: <u>5'</u> )					
1. <u><i>Polystichum munitum</i></u>		<u>80%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u><i>Equisetum telmateia</i></u>		<u>5%</u>	<u>No</u>	<u>FACW</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>85%</u> = Total Cover			
<b><u>Woody Vine Stratum</u></b>					
(Plot size: <u>10'</u> )					
1. <u><i>none</i></u>					
2. <u>      </u>					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>15%</u>			<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>X</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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-16	10YR 3/2	100					SaL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>      </u> No <u>  X  </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: June 14, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-44-SP1  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.272031 Long: -122.330008 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PEM wetland along SR 99, paralleling road. Paired with WFW44-SP2.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>2x1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
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>1x1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Phalaris arundinacea</u>		80%	Yes	FACW	
2. <u>Equisetum telmateia</u>		5%	No	FACW	
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>					
		85% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2x1m</u> )				
1. <u>none</u>					
2. <u>      </u>					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>15%</u>					

**Remarks:**

<b>SOIL</b>							Sampling Point:	WFW-44-SP1
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-9	2.5Y 3/1	98	10YR 4/4	2	C	M	SaL	
9-16	10YR 3/1	98	10YR 4/4	2	C	M	Lsa	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :		
<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 checked="" 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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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"/> Other (Explain in Remarks)

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> Water Table Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>    9    </u> Saturation Present?        Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>    1    </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: June 14, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WFW-44-SP2**  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 29, 21N, 4E  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.272040 Long: -122.330081 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 WFW44-SP2 is the paired upland sample point to WFW44-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Populus balsamifera</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>20%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>Oemleria cerasiformis</u>		<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Rubus armeniacus</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Rosa woodsii</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
4. <u>Rubus spectabilis</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
5. <u>Symphoricarpos albus</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
		<u>100%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Phalaris arundinacea</u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>60%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>40%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-44-SP2</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-16	10YR 3/2	100					CoGrL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / Pierce County Sampling Date: June 15, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-45-SP1  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.267707 Long: -122.332821 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Sample point is within WFW-45, PFO wetland. Wetland sample point paired to WFW45-SP2.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
1. <u>Fraxinus latifolia</u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Malus xdomestica</u>		<u>40%</u>	<u>Yes</u>	<u>NOL</u>	
3. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
4. _____					
		<u>100%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>10'</u> )					
1. <u>Lonicera involucrata</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rosa nutkana</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
		<u>40%</u> = Total Cover			
<b>Herb Stratum</b> (Plot size: <u>5'</u> )					<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Carex species</u>		<u>60%</u>	<u>Yes</u>	<u>FAC*</u>	
2. _____					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>60%</u> = Total Cover			
<b>Woody Vine Stratum</b> (Plot size: <u>10'</u> )					
1. <u>none</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>40%</u>					

**Remarks:**  
 \*Carex species is presumed FAC

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-10	10YR 2/1	97	10YR 4/4	3	C	M, PL	CL	
10-16	10YR 5/1	75	10YR 5/6	25	C	M, PL	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :
<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)	

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

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

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<b>Primary Indicators (minimum of one required; check all that apply)</b>	
<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 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 checked="" 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)	

<b>Field Observations:</b> 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): _____	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / Pierce County Sampling Date: June 15, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-45-SP2  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.267735 Long: -122.332720 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 SeaTac NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland sample point pair to WFW45-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
1. <u>Fraxinus latifolia</u>		<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
3. _____					
4. _____					<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____
5. _____					
80% = Total Cover					OBL species _____ x 1 = _____
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>10'</u> )				FACW species _____ x 2 = _____
1. <u>Rosa nutkana</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					<b>Hydrophytic Vegetation Indicators:</b>
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )				1 - Rapid Test for Hydrophytic Vegetation
1. <u>Polystichum munitum</u>		<u>80%</u>	<u>Yes</u>	<u>FACU</u>	<u>X</u> 2 - Dominance Test is >50%
2. <u>Rubus laciniatus</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	3 - Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Lathyrus latifolius</u>		<u>5%</u>	<u>No</u>	<u>NOL</u>	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. _____					5 - Wetland Non-Vascular Plants <sup>1</sup>
5. _____					Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
6. _____					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
7. _____					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
8. _____					
9. _____					
10. _____					
11. _____					
95% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>10'</u> )				
1. <u>none</u>					
2. _____					
0% = Total Cover					
% Bare Ground in Herb Stratum <u>5%</u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WFW-45-SP2</b>	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-12	10YR 4/1	99	10YR 5/6	1	C	M	CL	
12-16	10YR 5/1	90	10YR 5/8	10	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: July 12, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-46-SP1  
 Investigator(s): Amanda Weiss and Shelby Petro Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.269846 Long: -122.332020 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PSS Wetland, paired with SP2

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
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>67%</u> (A/B)
		<u>0%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				<b>Prevalence Index worksheet:</b>
1. <u>Rubus armeniacus</u>		<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Fraxinus latifolia</u>		<u>10%</u>	<u>Yes</u>	<u>FACW</u>	OBL species _____ x 1 = _____
3. _____					FACW species _____ x 2 = _____
4. _____					FAC species _____ x 3 = _____
5. _____					FACU species _____ x 4 = _____
		<u>20%</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> )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Geranium robertianum</u>		<u>30%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Athyrium cyclosorum</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	<u>X</u> 2 - Dominance Test is >50%
3. <u>Carex obnupta</u>		<u>5%</u>	<u>No</u>	<u>OBL</u>	3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. <u>Solanum dulcamara</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____					5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____					Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
9. _____					
10. _____					
11. _____					
		<u>45%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>None</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<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			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 16	10 YR 2/1	100					Mucky L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1)                      <input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Histic Epipedon (A2)              <input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Black Histic (A3)                    <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)              <input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)          <input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)          <input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)          <input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b>                      Yes <input checked="" type="checkbox"/>                      No <input type="checkbox"/></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)                      <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p><input checked="" type="checkbox"/> High Water Table (A2)                      <input type="checkbox"/> Salt Crust (B11)</p> <p><input checked="" type="checkbox"/> Saturation (A3)                              <input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Water Marks (B1)                              <input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)                      <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Drift Deposits (B3)                              <input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)                              <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Iron Deposits (B5)                              <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)                              <input type="checkbox"/> Other (Explain in Remarks)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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><b>Field Observations:</b></p> <p>Surface Water Present?              Yes <input type="checkbox"/>              No <input checked="" type="checkbox"/>              Depth (inches): <u>          </u></p> <p>Water Table Present?                Yes <input checked="" type="checkbox"/>              No <input type="checkbox"/>                Depth (inches): <u>10</u></p> <p>Saturation Present? (includes capillary fringe)              Yes <input checked="" type="checkbox"/>              No <input type="checkbox"/>                Depth (inches): <u>0</u></p>	<p><b>Wetland Hydrology Present?</b>                      Yes <input checked="" type="checkbox"/>                      No <input type="checkbox"/></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: TDLE City/County: Federal Way / King County Sampling Date: July 12, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WFW-46-SP2  
 Investigator(s): Amanda Weiss and Shelby Petro Section, Township, Range: 32, 21N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.269835 Long: -122.332013 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 upland located on fill slope adjacent to the road, paired with SP1

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
5. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus armeniacus</u>		100%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
100% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Geranium robertianum</u>		5%	Yes	FACU	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
5% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <u>95%</u>					

**Remarks:**  
 Within the herb stratum, there was only 5% herbaceous plant cover. Most of the ground within the plot was bare, likely due to shading from Himalayan blackberry (*Rubus armeniacus*), an invasive plant species that outcompetes native vegetation. The bare ground was covered with leaf and blackberry cane detritus.

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 16	10YR 2/1	100					GrL	cobbles

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1)                      <input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Histic Epipedon (A2)              <input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Black Histic (A3)                    <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)              <input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)          <input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)          <input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)          <input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b>                      Yes <input type="checkbox"/>                      No <input checked="" type="checkbox"/></p>
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**Remarks:**  
 The high content of gravel in the soil indicates that it is likely fill from the weigh station and SR 99. In contrast, adjacent soils within the wetland are a mucky loam (see WFW-46-SP1), which is a common soil type observed in wetlands within the corridor. Despite low value and chroma, these soils are not hydric, because they lack sufficient wetland hydrology to develop anaerobic conditions.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)                      <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p><input type="checkbox"/> High Water Table (A2)                      <input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Saturation (A3)                              <input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Water Marks (B1)                              <input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)                      <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Drift Deposits (B3)                              <input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)                              <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Iron Deposits (B5)                              <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)                              <input type="checkbox"/> Other (Explain in Remarks)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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><b>Field Observations:</b></p> <p>Surface Water Present?      Yes <input type="checkbox"/>      No <input checked="" type="checkbox"/>      Depth (inches): <u>          </u></p> <p>Water Table Present?        Yes <input type="checkbox"/>      No <input checked="" type="checkbox"/>      Depth (inches): <u>&gt;16"</u></p> <p>Saturation Present?         Yes <input type="checkbox"/>      No <input checked="" type="checkbox"/>      Depth (inches): <u>&gt;16"</u></p> <p>(includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>                      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:**  
 This upland soil pit is located topographically above the wetland. No water table or soil saturation was observed within the 16" deep soil pit, and no other hydrology indicators were observed. Climatic conditions were within the normal range during the site visit.



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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 02/04/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-02-SP1  
 Investigator(s): A. Thom, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258337 Long: -122.329987 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 The PEM wetland sample point is located at the toe-of-slope adjacent to I-5, south of West Hylebos Creek, in WMI-02 which is associated with SWF-01.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rubus armeniacus</u>	<u>55%</u>	<u>Yes</u>	<u>FAC</u>	
2.					
3.					
4.					
5.					
		55% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	<u>Phalaris arundinacea</u>	<u>100%</u>	<u>Yes</u>	<u>FACW</u>	
2.					
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			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 4/1	100	none				L	
8-16	10YR 4/1	80	5Y 6/2	15	D	M	SiCL	
			7.5YR 4/4	5	C	M		

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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)	

<b>Field Observations:</b> 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>13</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u>	<b>Wetland Hydrology Present?</b> 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:**  
Hydrology originates as sheetflow off I-5 south bound.

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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 02/04/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-02-SP2  
 Investigator(s): A. Thom, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258345 Long: -122.330010 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Sample point is located in upland hillslope along I-5. It is paired with WMI-02-SP1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				
1.	<u>Rubus armeniacus</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		<u>50%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				
1.	<u>Phalaris arundinacea</u>	<u>100%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
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			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/1	100					GrSaL	
8-16	10YR 3/1	99	2.5Y 6/2	1	D	M	GrSaL	

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

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>none</u></p> <p>Depth (inches): <u>n/a</u></p>	<p><b>Hydric Soil Present?</b></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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><b>Field Observations:</b></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><b>Wetland Hydrology Present?</b></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:**

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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 2/4/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-03-SP1  
 Investigator(s): A.Hoenig, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.259202 Long: -122.329288 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP located west of I-5 on a terrace. Paired with wetland SP2 for WMI-03.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		80%	Yes	FAC	
2. <u>Spiraea douglasii</u>		10%	No	FACW	
3. _____					
4. _____					
5. _____					
		90% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		20%	Yes	FACW	
2. <u>Lathyrus latifolius</u>		10%	Yes	NOL	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		30% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>70%</u>			

**Remarks:**

<b>SOIL</b>							Sampling Point:	WMI-03-SP1
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-7	10YR 4/2	97	10YR 5/3	3	C	M	CL	
7-20	2.5Y 5/2	70	10YR 3/3	5	C	M	C	
	10YR 4/2	25						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

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

**HYDROLOGY**

Wetland Hydrology Indicators:
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)
<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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:**  
Soils dry with no water table despite wetter than normal precipitation.

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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 2/4/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-03-SP2  
 Investigator(s): A.Hoenig, A. Thom, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Depression \_\_\_\_\_ Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.259180 Long: -122.329444 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PEM wetland SP near barbed wire fence at western edge of WMI-03, west of I-5 within the ROW.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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		
<b><u>Sapling/Shrub Stratum</u></b>	(Plot size: <u>r=2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Frangula purshiana</u>		<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Spiraea douglasii</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Rubus armeniacus</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. _____					
5. _____					
		<u>65%</u>	= Total Cover		
<b><u>Herb Stratum</u></b>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		<u>100%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>100%</u>	= Total Cover		
<b><u>Woody Vine Stratum</u></b>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
		<u>0%</u>	= Total Cover		
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-8	10YR 4/2	100					CL	
8-12	10YR 5/2	90	10YR 5/8	10	C	M	GrCL	
12-20	10Y 6/1	80	7.5YR 4/4	5	C	M	GrC	
			10YR 5/8	15	C	M	GrC	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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 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"/> Other (Explain in Remarks)

<b>Field Observations:</b> 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>8</u> Depth (inches): <u>5</u>	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton, King County Sampling Date: 2/5/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-04-SP1  
 Investigator(s): A. Hoenig, M. Murphy, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258199 Long: -122.330403 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation x, 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP located west of I-5 in WSDOT ROW and south of SFW1. Area has a history of agriculture and disturbance. This SP is located within a low point of a depression within a terrace upslope the West Hylebos. Problematic Vegetation: Vegetation is naturally problematic because the bowl-like depression contains weedy native (spiraea hardhack) and non-native, invasive (reed canarygrass) species which quickly populate areas and are not always indicative of hydrophytic vegetation. Determined to be upland because despite wetter than normal conditions, there was no evidence of water in the soil pit or other primary indicators.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Spiraea douglasii</u>		<u>100%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
<u>100%</u> = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>		<u>40%</u>	<u>Yes</u>	<u>FACW</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>					
<u>40%</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					
<b>% Bare Ground in Herb Stratum</b>	<u>60%</u>				

**Remarks:**



<b>SOIL</b>							<b>Sampling Point: WMI-04-SP1</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth (inches)	Matrix		Redox Features			Texture <sup>3</sup>	Remarks
Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/1					L	3" duff layer above
4-8	5Y 5/2	80	7.5 YR 5/4	20	C	M	
8-12	10YR 2/1	50				CL	mixed matrix
	5Y 5/2	45	7.5YR 5/8	5	C	M	CL
12-20	5Y 5/2	80	7.5YR 5/6	20	C	M	C
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> Texture: Sa = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)							
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)		<sup>3</sup> 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)						
<b>Restrictive Layer (if present):</b>				<b>Hydric Soil Present?</b>			
Type: <u>none</u>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Depth (inches): <u>n/a</u>							
<b>Remarks:</b>							
<b>HYDROLOGY</b>							
<b>Wetland Hydrology Indicators:</b>							
<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 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 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)							
<b>Field Observations:</b>				<b>Wetland Hydrology Present?</b>			
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>	Yes <input type="checkbox"/> No <input checked="" 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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>				
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>							
<b>Remarks:</b>							
Despite meeting two secondary hydrology indicators, wetland hydrology is unlikely due to some reasons: soils dry with no water table despite wetter than normal precipitation; and FAC-neutral (D5) indicator is not reliable because vegetation is naturally problematic and very weedy (see explanation above).							

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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 2/5/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-04-SP2  
 Investigator(s): A. Hoenig, M. Murphy, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258145 Long: -122.330392 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation X, 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PSS wetland SP west of I-5 within WSDOT ROW and south of SFW1. Area has a history of agriculture and disturbance. This SP is located within the lowest point of a bowl-like depression upon a terrace upslope of the West Hylebos. Vegetation is naturally problematic because the depression contains weedy native (spiraea hardhack) and non-native, invasive (reed canarygrass) species which quickly populate areas and often are not always indicative of hydrophytic vegetation.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Malus fusca</u>		<u>50%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>50%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Spiraea douglasii</u>		<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>40%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Phalaris arundinacea</u>		<u>100%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Urtica dioica</u>		<u>20%</u>	<u>No</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>120%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>none</u>		<u>0%</u>	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WMI-04-SP2</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth (inches)	Matrix		Redox Features			Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	
0-8	10YR 2/2	100					L
8-12	10YR 2/1	84	10YR 5/1	15	D	M	L
			10YR 5/8	1	C	M	L
12-16	10YR 2/1	83	10YR 6/1	15	D	M	CL
			10YR 3/6	2	C	M	CL
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> Texture: Sa = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)							
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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 checked="" type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)				
<b>Restrictive Layer (if present):</b>				<b>Hydric Soil Present?</b>			
Type: <u>none</u>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Depth (inches): <u>n/a</u>							
<b>Remarks:</b>							
<b>HYDROLOGY</b>							
<b>Wetland Hydrology Indicators:</b>				<b>Secondary Indicators (2 or more required)</b>			
<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 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 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 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)							
<b>Field Observations:</b>				<b>Wetland Hydrology Present?</b>			
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 checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches): <u>20</u>				
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches): <u>8</u>				
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>							
<b>Remarks:</b>							
FAC-neutral (D5) indicator is not reliable because vegetation is naturally problematic and very weedy							

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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 2/5/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-04-SP3  
 Investigator(s): A. Hoenig, M. Murphy, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258273 Long: -122.330559 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation X, 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP in area west of I-5 within the WSDOT ROW and south of SFW1. Area has a history of agriculture and disturbance. This SP is located within the lowest point of a bowl-like depression upon a terrace upslope of the West Hylebos. Vegetation is naturally problematic because the depression contains weedy native (spiraea hardhack) and non-native, invasive (reed canarygrass) species which quickly populate areas and often are not always indicative of hydrophytic vegetation. Determined to be upland because despite wetter than normal conditions, there was no evidence of water in the soil pit or other primary indicators.

**VEGETATION**

Tree Stratum	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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			
Sapling/Shrub Stratum	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>Spiraea douglasii</u>		<u>65%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					
3. _____					
4. _____					
5. _____					
		<u>65%</u> = Total Cover			
Herb Stratum	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Phalaris arundinacea</u>		<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>40%</u> = Total Cover			
Woody Vine Stratum	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>none</u>					
2. _____					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>60%</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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-10	10YR 2/1	100					L	3" duff above
10-18	5Y 6/2	93	10YR 4/3	7	C	M	C	

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

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1)                      <input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Histic Epipedon (A2)              <input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Black Histic (A3)                    <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)              <input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)   <input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)           <input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)           <input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)           <input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>none</u></p> <p>Depth (inches): <u>n/a</u></p>	<p><b>Hydric Soil Present?</b>                      Yes <u>X</u>                      No <u>      </u></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)                      <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p><input type="checkbox"/> High Water Table (A2)                      <input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Saturation (A3)                              <input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Water Marks (B1)                            <input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)                    <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Drift Deposits (B3)                           <input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)                      <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Iron Deposits (B5)                           <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)                    <input type="checkbox"/> Other (Explain in Remarks)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 checked="" 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><b>Field Observations:</b></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> (includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>                      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:**  
Despite meeting two secondary hydrology indicators, wetland hydrology is unlikely due to some reasons: soils dry with no water table despite wetter than normal precipitation; and FAC-neutral (D5) indicator is not reliable because vegetation is naturally problematic and very weedy (see explanation above).

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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 2/5/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-04-SP4  
 Investigator(s): A. Hoenig, M. Murphy, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258386 Long: -122.330437 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation X, 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP in area west of I-5 within the WSDOT ROW and south of SFW1. Area has a history of agriculture and disturbance. This SP is located within the lowest point of a bowl-like depression upon a terrace upslope of the West Hylebos. Vegetation is naturally problematic because the depression contains weedy native (spiraea hardhack) and non-native, invasive (reed canarygrass) species which quickly populate areas and often are not always indicative of hydrophytic vegetation. Determined to be upland because despite wetter than normal conditions, there was no evidence of water in the soil pit or other primary indicators.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus laciniatus</u>		<u>25%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Spiraea douglasii</u>		<u>10%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>      </u>					
4. <u>      </u>					
		35% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Phalaris arundinacea</u>		<u>100%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Urtica dioica</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>					
		110% = 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>					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	10YR 2/1	100					L	
7-8	5Y 6/2	70	7.5YR 5/8	15	C	M	CL	
			10YR 6/8	15	C	M	CL	
8-16	10Y 6/1	78	7.5YR 5/8	2	C	M	C	mixed matrix
	N 5/	20					C	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<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)		

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No <u>    </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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:**  
Despite meeting two secondary hydrology indicators, wetland hydrology is unlikely due to some reasons: soils dry with no water table despite wetter than normal precipitation; and FAC-neutral (D5) indicator is not reliable because vegetation is naturally problematic and very weedy (see explanation above).



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

Project/Site: TDLE City/County: Milton, King County Sampling Date: 2/5/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-04-SP5  
 Investigator(s): A. Hoenig Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258434 Long: -122.330341 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP located at top of hillslope between the large spiraea/reed canarygrass depression, and SFW-01 which is tributary to West Hylebos. Area has a history of agriculture and disturbance.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <u>Corylus cornuta</u>		<u>60%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Alnus rubra</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
4. _____		_____	_____	_____	<b>Prevalence Index worksheet:</b>
140% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	OBL species _____ x 1 = _____
1. <u>Rubus spectabilis</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	FACW species _____ x 2 = _____
2. <u>Spiraea douglasii</u>		<u>20%</u>	<u>Yes</u>	<u>FACW</u>	FAC species _____ x 3 = _____
3. <u>Rubus armeniacus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	FACU species _____ x 4 = _____
4. <u>Sambucus racemosa</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	UPL species _____ x 5 = _____
5. _____		_____	_____	_____	Column Totals: _____ (A) _____ (B)
80% = Total Cover					Prevalence Index = B/A = _____
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Polystichum munitum</u>		<u>30%</u>	<u>Yes</u>	<u>FACU</u>	<u>1</u> - Rapid Test for Hydrophytic Vegetation
2. <u>Rubus ursinus</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	<u>X</u> 2 - Dominance Test is >50%
3. _____		_____	_____	_____	<u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>
4. _____		_____	_____	_____	<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____		_____	_____	_____	<u>5</u> - Wetland Non-Vascular Plants <sup>1</sup>
6. _____		_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____		_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
35% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b>
1. <u>none</u>		_____	_____	_____	Yes <u>X</u> No _____
2. _____		_____	_____	_____	
0% = Total Cover					
% Bare Ground in Herb Stratum <u>65%</u>					

Remarks:

<b>SOIL</b>							<b>Sampling Point: WMI-04-SP5</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-4	10YR 2/2	100					L
4-8	7.5YR 2.5/1	95	2.5Y 4/1	5	D	M	L
8-20	10YR 2/1	100					L
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> Texture: Sa = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)							
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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)				
							<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<b>Restrictive Layer (if present):</b>					<b>Hydric Soil Present?</b>		
Type: <u>none</u>					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Depth (inches): <u>n/a</u>							
<b>Remarks:</b> no redox concentrations present							
<b>HYDROLOGY</b>							
<b>Wetland Hydrology Indicators:</b>				<b>Secondary Indicators (2 or more required)</b>			
<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)							
<b>Field Observations:</b>					<b>Wetland Hydrology Present?</b>		
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):				
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>							
<b>Remarks:</b>							

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

Project/Site: TDLE City/County: Milton/King Sampling Date: 2/13/20  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-06-SP1  
 Investigator(s): Aaron Thom, Steve Krueger Section, Township, Range: T20N R04E S05 L 2  
 Landform (hillslope, terrace, etc.): toe of slope in ditch Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.257101 Long: -122.330730 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - 20B - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Sample point is located at the toe of slope in a ditch west of south bound I-5. This is the PEM wetland sample point for WMI-06.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1x3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>1x2m</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>1x1m</u> )				
1. <u>Phalaris arundinacea</u>		<u>98%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Cirsium vulgare</u>		<u>1%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Galium aparine</u>		<u>1%</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>1x2m</u> )				
1. <u>none</u>					
2. <u>      </u>					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 4/1	100					SaCL	
7-8	2.5Y 5/3	100					LSa	
8-12	2.5Y 4/1	90	2.5Y 5/6	5	C	M	SaL	
			5Y 5/1	5	D	M		
12-17	10Y 5/1	50	10YR 6/8	30	C	M	C	
			7.5YR 8/6	20	C	M		

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	<sup>3</sup> 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)	

<b>Restrictive Layer (if present):</b> Type: none Depth (inches): n/a	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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 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"/> Other (Explain in Remarks)

<b>Field Observations:</b> 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): 11 Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 5	<b>Wetland Hydrology Present?</b> 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:**  
Hydrology originates as sheetflow off I-5 south bound.

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

Project/Site: TDLE City/County: Milton/King Sampling Date: 2/13/20  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-06-SP2  
 Investigator(s): Aaron Thom, Steve Krueger Section, Township, Range: T20N R04E S05 L 2  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.257043 Long: -122.330803 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - 20B - 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           , Soil           , or Hydrology            significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>          </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Upland sample point is associated with WMI-06-SP1. It is located upslope and west of the ditched wetland. No wetland hydrology despite wetter than normal conditions.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>1x3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. <u>          </u>					
3. <u>          </u>					
4. <u>          </u>					
		<u>0%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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>1x2m</u> )				
1. <u>Rubus armeniacus</u>		<u>35%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>          </u>					
3. <u>          </u>					
4. <u>          </u>					
5. <u>          </u>					
		<u>35%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1x1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>          </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>          </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>          </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>          </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>          </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Agrostis capillaris</u>		<u>95%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Hypericum perforatum</u>		<u>1%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Hypochaeris radicata</u>		<u>1%</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>97%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>1x2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>          </u>
1. <u>none</u>					
2. <u>          </u>					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>3%</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 <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/2	100					L	
7-16	2.5Y 6/1	80	10YR 5/6	20	C	M	SiC	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

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

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

**Remarks:**  
no wetland hydrology despite wetter than normal conditions.

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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: May 2, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-07-SP3  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253920 Long: -122.332650 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): erwood gravelly sandy loam, 8 to 15 percent slo - AgC - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 SeaTac NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Located upslope of wetland near fence

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <u>Pseudotsuga menziesii</u>	20%	Yes	FACU	
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. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>
20% = Total Cover				Total % Cover of: _____ Multiply by: _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r = 2m</u> )				OBL species _____ x 1 = _____
1. <u>Rubus armeniacus</u>	40%	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)
40% = Total Cover				Prevalence Index = B/A = _____
<b>Herb Stratum</b> (Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Poa pratensis</u>	80%	Yes	FAC	1 - Rapid Test for Hydrophytic Vegetation
2. <u>Phalaris arundinacea</u>	15%	No	FACW	X 2 - Dominance Test is >50%
3. <u>Equisetum telmateia</u>	5%	No	FACW	3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. _____	_____	_____	_____	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____	_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
100% = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>r = 2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<u>0%</u>			

**Remarks:**  
 No flowers of poa species present.

<b>SOIL</b>							<b>Sampling Point:</b> WMI-07-SP3	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features			Texture <sup>3</sup>	Remarks	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 7	10 YR 4/2	100					CL	
7 - 18	10 YR 4/2	65	10 YR 4/6	15	C	M	CL	
	10 YR 5/1	20						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	<sup>3</sup> 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)	

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required: check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 2, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-07-SP4  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253970 Long: -122.332571 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): erwood gravelly sandy loam, 8 to 15 percent slo - AgC - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**

PSS wetland (*Fraxinus latifolia* saplings and *Rubus armeniacus* shrubs). Paired with SP5

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Fraxinus latifolia</u>		15%	Yes	FACW	
2. <u>Rubus armeniacus</u>		5%	Yes	FAC	
3. _____					
4. _____					
5. _____					
		20% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		90%	Yes	FACW	
2. <u>Poa pratensis</u>		15%	No	FAC	
3. _____					
4. _____					
5. _____					
6. _____					
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			
<b>% Bare Ground in Herb Stratum</b>		0%			

**Remarks:**

*Fraxinus latifolia* sapling present. No flowers on *Poa pratensis*.

SOIL								Sampling Point: WMI-07-SP4
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 5	10 YR 4/2	98	10 YR 5/8	2	C	M	CL	
5 - 18	10 YR 5/1	85	10 YR 4/6	15	C	M/PL	SiC	Some gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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"/> 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)	

<b>Field Observations:</b> 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>0</u>	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 2, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-07-SP5  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): top of slope Local relief (concave, convex, none): convex Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.255583 Long: -122.331713 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpC - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland. Paired with SP6

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Cytisus scoparius</u>		5%	Yes	NOL	
2. _____					
3. _____					
4. _____					
5. _____					
5% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Alopecurus species</u>		90%	Yes	FAC*	
2. <u>Agrostis species</u>		15%	No	FAC*	
3. <u>Daucus carota</u>		15%	No	FACU	
4. <u>Plantago lanceolata</u>		10%	No	FACU	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
130% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 2m</u> )				
1. <u>None</u>					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**  
 \*presumed FAC  
 C. scoparius mostly observed in upland areas in Puget Sound lowlands - presumed FACU

<b>SOIL</b>							<b>Sampling Point: WMI-07-SP5</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0 - 3	10 YR 3/2	100					SL
3 - 6	10 YR 4/3	100					SL
6 - 16	10 YR 5/3	99	10YR 5/8	1	C	CS	S

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required: check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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>  X  </u> No <u>      </u> Depth (inches): <u>  15  </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: May 2, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-07-SP6  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.255610 Long: -122.331784 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpC - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PEM wetland, paired with SP5. Terrace is located above I-5 between raised upland to the east and slope to the west.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		100%	Yes	FACW	
2. _____					
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			
<b>% Bare Ground in Herb Stratum</b>		0%			

**Remarks:**

<b>SOIL</b>						<b>Sampling Point:</b> WMI-07-SP6		
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 7	10 YR 3/2	95	7.5 YR 3/4	5	C	M	L	
7 - 18	5 Y 4/1	93	10 YR 3/6	7	C	M	Gravelly SL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)	<sup>3</sup> 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)				

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required: check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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 checked="" 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 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 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)		

<b>Field Observations:</b> 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>  7  </u> Saturation Present?        Yes <u>  X  </u> No <u>      </u> Depth (inches): <u>Surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton, Pierce County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-08-SP1  
 Investigator(s): K. Moser, A. Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253230 Long: -122.332804 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 % slopes - 1C - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Upland sample point is on a hillslope west of I-5 southbound.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Alnus rubra</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Pseudotsuga menziesii</u>		<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>70%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b>	(Plot size: <u>r=2m</u> )				
1. <u>Rubus armeniacus</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Amelanchier alnifolia</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>90%</u> = Total Cover			
<b>Herb Stratum</b>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> ____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Polystichum munitum</u>		<u>40%</u>	<u>Yes</u>	<u>FACU</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>45%</u> = Total Cover			
<b>Woody Vine Stratum</b>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-4	10YR 5/2	100					C	
4-16	10YR 5/2	55	7.5YR 5/8	15	C	M	CL	mixed matrix
4-16	N 5/	30						

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

<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>  <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)  <sup>3</sup> 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 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)	

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

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required: check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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><b>Field Observations:</b></p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> X _____ Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> X _____ Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> X _____ Depth (inches): _____ (includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b></p> <p>Yes _____ No <input checked="" type="checkbox"/> X _____</p>
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**Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:**

**Remarks:**  
No hydrology despite wetter than normal condtions.



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

Project/Site: TDLE City/County: Milton, Pierce County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-08-SP2  
 Investigator(s): K. Moser, A. Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253149 Long: -122.332836 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 % slopes - 1C - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 This sample point is within the PSS portion of WMI-08 upslope of a swale feature.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Cornus alba</u>		<u>50%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Rubus armeniacus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
		80% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Polystichum munitum</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		90% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-9	2.5Y 4/2	80	2.5 4/1	15	D	M	SiCL	
			10YR 4/6	5	C	M		
9-16	5GY 5/1	70	7.5YR 5/8	30	C	M	CL	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: Clay _____ Depth (inches): 9 _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<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"/> Other (Explain in Remarks)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
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 <input checked="" type="checkbox"/> No _____ Depth (inches): 9 _____	
(includes capillary fringe)	

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

**Remarks:**  
Clay layer forms restrictive layer at 9 inches. Soils were saturated above.

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

Project/Site: TDLE City/County: Milton, Pierce County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-08-SP3  
 Investigator(s): K. Moser, A. Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253176 Long: -122.332624 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 % slopes - 1C - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>
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 International NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 Sample point is upslope of PEM portion of WMI-08.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100%</u> (A/B)
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2x1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> 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>1x1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Holcus lanatus</u>		50%	Yes	FAC	
2. <u>Phalaris arundinacea</u>		30%	Yes	FACW	
3. <u>Festuca rubra</u>		20%	Yes	FAC	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2x1m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>0%</u> = Total Cover					

**Remarks:**

SOIL							Sampling Point:	WMI-08-SP3
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 <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	10YR 3/2	100					GrSaL	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required: check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<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 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)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>	<b>Yes</b> _____	<b>No</b> <u>  X  </u>
Surface Water Present? Yes _____ No <u>  X  </u>			
Water Table Present? Yes _____ No <u>  X  </u>			
Saturation Present? Yes <u>  X  </u> No _____			
(includes capillary fringe)			
Depth (inches): _____			
Depth (inches): _____			
Depth (inches): <u>  14  </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: TDLE City/County: Milton, Pierce County Sampling Date: 2/25/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-08-SP4  
 Investigator(s): K. Moser, A. Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253178 Long: -122.332645 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Alderwood gravelly sandy loam, 8 to 15 % slopes - 1C - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visit in February.

**Remarks:**  
 This PEM sample point for WMI-08 occurs in the roadside ditch along I-5 southbound.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3x1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
5. _____					
0% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2x1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Fraxinus latifolia</u>		20%	Yes	FACW	
2. <u>Rubus armeniacus</u>		5%	Yes	FAC	
3. _____					
4. _____					
5. _____					
25% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>1x1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		100%	Yes	FACW	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
100% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>2x1m</u> )				
1. <u>none</u>					
2. _____					
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10YR 3/2	100					SIL	with organic material
6-16	2.5Y 4/1	85	10YR 4/6	15	C	M	SIL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>  <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)  <sup>3</sup> 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 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)	

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

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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 checked="" 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 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 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)		

<p><b>Field Observations:</b></p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Depth (inches): _____</p> <p>Depth (inches): 4 _____</p> <p>Depth (inches): surface _____</p>	<p><b>Wetland Hydrology Present?</b></p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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: TDLE City/County: Milton, Pierce County Sampling Date: 2/10/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-09a-SP1**  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.252248 Long: -122.333440 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmo muck - 37A - Hydric NWI classification: PSS1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is PFO. It is west of West Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>86%</u> (A/B)	
1. <u>Salix lasiandra</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>		<b>Prevalence Index worksheet:</b> 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>Alnus rubra</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>		
3. <u>Populus balsamifera</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		
4. _____	_____	_____	_____		
<u>100% = Total Cover</u>					
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>		
1. <u>Rubus spectabilis</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
2. <u>Symphoricarpos albus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>80% = Total Cover</u>					
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>		
1. <u>Oenanthse sarmentosa</u>	<u>40%</u>	<u>Yes</u>	<u>OBL</u>		
2. <u>Phalaris arundinacea</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>		
3. <u>Polystichum munitum</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>		
4. <u>Phalaris arundinacea</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>		
5. <u>Equisetum telmateia</u>	<u>1%</u>	<u>No</u>	<u>FACW</u>		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>86% = Total Cover</u>					
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>		
1. <u>none</u>	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0% = Total Cover</u>					
<b>% Bare Ground in Herb Stratum</b> <u>14%</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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10YR 4/1	50					GrSaCL	
	10YR 3/2	50						mixed matrix
6-20	2.5Y 5/1	80	10YR 3/4	20	C	M	GrSaCL	cobbles increase deeper in matrix

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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)	

<b>Field Observations:</b> 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>2</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton, Pierce County Sampling Date: 2/10/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-09a-SP2**  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.252209 Long: -122.333436 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmo muck - 37A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is the upland plot for WMI-09. It is located west of West Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>40%</u> (A/B)
1. <u>Populus balsamifera</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Tsuga heterophylla</u>	<u>25%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Alnus rubra</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
<u>65%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	
1. <u>Rubus armeniacus</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Oemleria cerasiformis</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>70%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	
1. <u>Polystichum munitum</u>	<u>25%</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Equisetum telmateia</u>	<u>3%</u>	<u>No</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>28%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	
1. <u>none</u>	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<u>72%</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 <sup>1</sup>		
0-4	10YR 4/1	100	none			GrSaC	
4-16	2.5Y 5/2	100	none			GrSaC	

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>      </u> No <u>  X  </u>
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**Remarks:**

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<b>Primary Indicators (minimum of one required; check all that apply)</b>	
<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"/> 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)	

<b>Field Observations:</b> 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>  X  </u> No <u>      </u> Depth (inches): <u>  0-3  </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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:**  
Saturation in top 3 inches only due to recent rainfall.

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

Project/Site: TDLE City/County: Milton, Pierce County Sampling Date: 2/10/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-09a-SP3**  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253220 Long: -122.333490 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmoo muck - 37A - Hydric NWI classification: R3UBH  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point within an reed canarygrass emergent patch, but within PFO vegetation classification. Located west fork or West Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b> 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)	
(Plot size: <u>r=3m</u> )					
1. <u>Alnus rubra</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> 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. _____					
3. _____					
4. _____					
	<u>5%</u> = Total Cover				
<b>Sapling/Shrub Stratum</b>					
(Plot size: <u>r=2m</u> )					
1. <u>Alnus rubra</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> ____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% ____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ 5 - Wetland Non-Vascular Plants <sup>1</sup> ____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
2. _____					
3. _____					
4. _____					
5. _____					
	<u>10%</u> = Total Cover				
<b>Herb Stratum</b>					
(Plot size: <u>r=1m</u> )					
1. <u>Phalaris arundinacea</u>	<u>100%</u>	<u>Yes</u>	<u>FACW</u>		
2. <u>Urtica dioica</u>	<u>3%</u>	<u>No</u>	<u>FAC</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
	<u>103%</u> = Total Cover				
<b>Woody Vine Stratum</b>					
(Plot size: <u>r=2m</u> )					
1. <u>none</u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____	
2. _____					
	<u>0%</u> = Total Cover				

**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 <sup>1</sup>		
0-10	10YR 2/2	100				Mucky Loam	
10-17	10YR 4/1	100				Mucky Loam	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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 checked="" 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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
Soil sample was left out for 1 hour to dry; no redox was found. Soils contain a mucky feel, therefore are presumed to be a mucky mineral. Hydric soils assumed based on strong hydrology.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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 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"/> Other (Explain in Remarks)

<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton, Pierce County Sampling Date: 2/10/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-09a-SP4**  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253266 Long: -122.333282 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - 20D - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This upland sample point occurred east of left bank of West Fork Hylebos. Paired with WMI-09-SP3

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b> 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>Acer macrophyllum</u>	<u>70%</u>	<u>Yes</u>	<u>FACU</u>		<b>Prevalence Index worksheet:</b> 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>Thuja plicata</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>					
3. <u>Alnus rubra</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>					
4. _____	_____	_____	_____					
<u>140%</u> = Total Cover								
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>					
1. <u>Acer circinatum</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> _____ <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.				
2. <u>Oemleria cerasiformis</u>	<u>15%</u>	<u>No</u>	<u>FACU</u>					
3. <u>Rubus ursinus</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>					
4. _____	_____	_____	_____					
5. _____	_____	_____	_____					
<u>80%</u> = Total Cover								
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>					
1. <u>Polystichum munitum</u>	<u>90%</u>	<u>Yes</u>	<u>FACU</u>		<table border="1"> <tr> <td><b>Hydrophytic Vegetation Present?</b></td> <td>Yes _____</td> <td>No <u>X</u></td> </tr> </table>	<b>Hydrophytic Vegetation Present?</b>	Yes _____	No <u>X</u>
<b>Hydrophytic Vegetation Present?</b>	Yes _____	No <u>X</u>						
2. <u>Mahonia nervosa</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>					
3. _____	_____	_____	_____					
4. _____	_____	_____	_____					
5. _____	_____	_____	_____					
6. _____	_____	_____	_____					
7. _____	_____	_____	_____					
8. _____	_____	_____	_____					
9. _____	_____	_____	_____					
10. _____	_____	_____	_____					
11. _____	_____	_____	_____					
<u>100%</u> = Total Cover								
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>					
1. <u>none</u>	_____	_____	_____					
2. _____	_____	_____	_____					
<u>0%</u> = Total Cover								
<b>% Bare Ground in Herb Stratum</b> <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 <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	100					CL	
5-16	10YR 5/4	98	10YR 6/8	2	C	M	C	

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: none Depth (inches): n/a	<b>Hydric Soil Present?</b> Yes _____      No <u>  X  </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton, Pierce County Sampling Date: 2/10/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09a-SP5  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S05 A SWNW  
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253339 Long: -122.333455 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - 20D - Not Hydric NWI classification: PSS1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is the PFO wetland pit for WMI-09. It is located on the base of a slope in a flat area, north of West Hylebos Creek on the left bank.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100%</u> (A/B)
1. <u>Fraxinus latifolia</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Alnus rubra</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
3. <u>Salix lasiandra</u>	<u>10%</u>	<u>No</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
	<u>100%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Prevalence Index worksheet:</b> 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>Cornus alba</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>80%</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Lysichiton americanus</u>	<u>40%</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Tolmiea menziesii</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Urtica dioica</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Polystichum munitum</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	<u>70%</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
	<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>1</sup>		
0-12	10YR 2/2	100				Mucky Loam	
12-34	7.5YR 2.5/1	100				Muck	

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

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input checked="" 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 checked="" type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" 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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
Soils contain a mucky feel, therefore are presumed to be a mucky mineral. Hydric soils assumed based on strong hydrology

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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 checked="" 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)	

<b>Field Observations:</b> 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>2</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: June 8, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09a-SP6  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253516 Long: -122.334363 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmoo muck - 37A - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO class, parcel 3129, on west side of wetland, paired with SP7

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</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>100%</u> (A/B)
1. <u>Alnus rubra</u>		<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____					
3. _____					
4. _____					
		<u>80%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<u>Sapling/Shrub Stratum</u>	(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			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Phalaris arundinacea</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Equisetum telmateia</u>		<u>25%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Athyrium cyclosorum</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Urtica dioica</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
5. _____		<u>5%</u>	<u>No</u>		
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			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 8	10 YR 4/1	90	7.5 YR 5/6	10	C	M	SiL	
8 - 20	5 Y 5/1	70	7.5 YR 5/6	30	C	PL/M	Gravelly SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
 Oxidized Rhizospheres observed at depths between 8 - 20 inches.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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 checked="" 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 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)		

<b>Field Observations:</b> 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?        Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (includes capillary fringe)	Depth (inches): <u>          </u> Depth (inches): <u>8</u> Depth (inches): <u>Surface</u>	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: June 8, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09a-SP7  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.253501 Long: -122.334388 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmoo muck - 37A - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland SP paired with WMI-09a-SP6

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
1. <u>Alnus rubra</u>		<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus balsamifera</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____		_____	_____	_____	
		<u>80%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b>	(Plot size: <u>10'</u> )				
1. <u>Rubus armeniacus</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	Prevalence Index = B/A = _____
6. _____		_____	_____	_____	
		<u>30%</u> = Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
<b>Herb Stratum</b>	(Plot size: <u>5'</u> )				
1. <u>Urtica dioica</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	Prevalence Index = B/A = _____
2. <u>Galium aparine</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
3. _____		_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	Prevalence Index = B/A = _____
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	Prevalence Index = B/A = _____
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
		<u>10%</u> = Total Cover			
<b>Woody Vine Stratum</b>	(Plot size: <u>10'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	Prevalence Index = B/A = _____
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>	<u>90%</u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
<b>Remarks:</b>					

<b>SOIL</b>							Sampling Point:	WMI-09a-SP7
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 8	2.5 Y 3/3	99	10 YR 5/6	1	C	M	Gravelly SL	
8 - 20	2.5 Y 3/2	99	10 YR 5/6	1	C	M	Gravelly SL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :		
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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"/> 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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: June 8, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09a-SP8  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.254104 Long: -122.334039 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmoo muck - 37A - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Within PEM class of WMI-09a, parcel 3111. Paired with SP9

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. <u>None</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				<b>Prevalence Index worksheet:</b> 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>Cornus alba</u>		5%	Yes	FACW	
2. _____					
3. _____					
4. _____					
5. _____					
		5% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is >50% ____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ 5 - Wetland Non-Vascular Plants <sup>1</sup> ____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Phalaris arundinacea</u>		95%	Yes	FACW	
2. <u>Impatiens capensis</u>		5%	No	FACW	
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			
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					<b>Hydrophytic Vegetation Present?</b> 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 4	2.5 Y 4/2	100					SiL	
4 - 10	2.5 Y 4/1	95	7.5 YR 5/6	5	C	M	SiL	
10 - 18	2.5 Y 4/1	85	7.5 YR 5/6	15			SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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 checked="" 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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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 checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> 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>15</u> Depth (inches): <u>4</u>	<b>Wetland Hydrology Present?</b> 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:**  
Drier than normal.

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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: June 8, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09a-SP9  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.254159 Long: -122.333946 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmoo muck - 37A - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Paired upland pit to WMI-09a-SP8.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Fraxinus latifolia</u>		<u>40%</u>	<u>Yes</u>	<u>FACW</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>40%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r = 2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>  </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		<u>90%</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>90%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Phalaris arundinacea</u>		<u>20%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Equisetum telmateia</u>		<u>3%</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>23%</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			
<b>% Bare Ground in Herb Stratum</b>		<u>77%</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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 14	2.5 Y 5/3	95	2.5 Y 5/6	5	C	M	Gravelly SiL	
14 - 16	2.5 Y 5/2	95	2.5 Y 5/6	5	C	M	Gravelly SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	<sup>3</sup> 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)	

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <u>      </u> No <u>  X  </u>
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**Remarks:**  
 Depleted layer too low in soil profile to meet F3.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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:**  
 Along steep hillslope above wetland.



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

Project/Site: TDLE City/County: Milton / Pierce County Sampling Date: June 05, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09b-SP1  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5 20N 4E  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.256032 Long: -122.334864 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - KpD - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 WMI09b-SP1 is located along the northern edge of roadfill/wetland, near Birch Street. This is the palustrine scrub-shrub wetland sample point for WMI-09b.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>10'</u> )				
1. <u>Cornus alba</u>		<u>50%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____					
3. _____					
4. _____					
5. _____					
		50% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5'</u> )				
1. <u>Phalaris arundinacea</u>		<u>30%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Urtica dioica</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Impatiens capensis</u>		<u>20%</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Athyrium cyclosorum</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
5. <u>Solanum dulcamara</u>		<u>10%</u>	<u>No</u>	<u>FAC</u>	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10'</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-20	10YR 2/1	100					Muck	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input checked="" 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 checked="" 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)	

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

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

**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<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 checked="" 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 checked="" 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)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): 14	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): 0	

**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: TDLE City/County: Milton / Pierce County Sampling Date: June 05, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09b-SP2  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5 20N 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.256064 Long: -122.334864 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - KpD - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland sample point to WMI09b-SP1, located along Birch Street.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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.	_____	_____	_____	_____	<b>Prevalence Index worksheet:</b> 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>60%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1.	<u>Rubus armeniacus</u>	<u>95%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
2.	<u>Cornus alba</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>		
3.	_____	_____	_____	_____		
4.	_____	_____	_____	_____		
5.	_____	_____	_____	_____		
		<u>100%</u> = Total Cover				
<u>Herb Stratum</u>	(Plot size: <u>1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1.	<u>Equisetum telmateia</u>	<u>10%</u>	<u>No</u>	<u>FACW</u>		
2.	<u>Galium aparine</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>		
3.	<u>Solanum dulcamara</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>		
4.	<u>Phalaris arundinacea</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>		
5.	<u>Impatiens capensis</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>		
6.	_____	_____	_____	_____		
7.	_____	_____	_____	_____		
8.	_____	_____	_____	_____		
9.	_____	_____	_____	_____		
10.	_____	_____	_____	_____		
11.	_____	_____	_____	_____		
		<u>30%</u> = Total Cover				
<u>Woody Vine Stratum</u>	(Plot size: <u>2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1.	<u>none</u>	_____	_____	_____		
2.	_____	_____	_____	_____		
		<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____	

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WMI-09b-SP2
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-3	10YR 3/2	100					GrL
3-16	2.5Y 5/3	95	2.5Y 5/6	5	C	M	GrL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

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

**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b>			<b>Wetland Hydrology Present?</b>
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>	Yes <input type="checkbox"/> No <input checked="" 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 type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <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: TDLE City/County: Milton / Pierce County Sampling Date: June 05, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09b-SP3  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5 20N 4E  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.256017 Long: -122.334079 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmoo muck - 37A - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 WMI09b-SP3 is the palustrine emergent sample point for wetland WMI09b. Paired with SP4

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>2m</u> )				
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1m</u> )				
1. <u>Phalaris arundinacea</u>		95%	Yes	FACW	
2. <u>Urtica dioica</u>		5%	No	FAC	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2m</u> )				
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10YR 4/2	98	10YR 4/6	2	C	M	SiL	
6-13	10YR 4/1	90	7.5YR 5/6	10	C	M, PL	SiL	
13-20	5Y 4/1	70	7.5YR 5/6	30	C	M, PL	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**Remarks:**  
Some organic materials were observed mixed in the soils at depths between 0 - 6 inches.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
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)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b>
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>13</u>	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</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: TDLE City/County: Milton / Pierce County Sampling Date: June 05, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09b-SP4  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5 20N 4E  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.256046 Long: -122.334072 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Semiahmoo muck - 37A - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 WMI09b-SP4 is the upland paired sample point to WMI09b-SP3, for the palustrine emergent plant class.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus armeniacus</u>		100%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		100% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>		10%	yes	FACW	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		10% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-16	2.5Y 3/3	100					LS	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton / Pierce County Sampling Date: June 05, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09b-SP5  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 5 20N 4E  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.254987 Long: -122.335050 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - 20D - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 WMI-09b-SP5 is located in an area mapped as PSS Cowardin class. Paired with SP6

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Alnus rubra</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
		<u>90%</u> = Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2m</u> )			
1.	<u>none</u>	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		<u>0%</u> = Total Cover		
<u>Herb Stratum</u>	(Plot size: <u>1m</u> )			
1.	<u>Phalaris arundinacea</u>	<u>75%</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Urtica dioica</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>
3.	<u>Impatiens capensis</u>	<u>10%</u>	<u>No</u>	<u>FACW</u>
4.	<u>Equisetum telmateia</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
		<u>100%</u> = Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: <u>2m</u> )			
1.	<u>none</u>	_____	_____	_____
2.	_____	_____	_____	_____
		<u>0%</u> = Total Cover		
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>		

<b>Dominance Test worksheet:</b>	
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)
<b>Prevalence Index worksheet:</b>	
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 = _____	

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation \_\_\_\_\_

X 2 - Dominance Test is >50% \_\_\_\_\_

3 - Prevalence Index is ≤3.0<sup>1</sup> \_\_\_\_\_

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) \_\_\_\_\_

5 - Wetland Non-Vascular Plants<sup>1</sup> \_\_\_\_\_

Problematic Hydrophytic Vegetation (Explain)<sup>1</sup> \_\_\_\_\_

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes X 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-7	10YR 4/1	95	10YR 4/6	5	C	M, PL	SiL	
7-20	10Y 2.5/1	95	10YR 4/6	5	C	M, PL	Gravelly SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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**Remarks:**  
 Oxidized rhizospheres were observed at depths between 0 - 7 inches.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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 checked="" 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 checked="" 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)		

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> 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>Surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton / Pierce County Sampling Date: June 05, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-09b-SP6  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: ?  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.255023 Long: -122.335060 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - 20D - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 WMI09b-SP6 is th upland point of WMI09b on parcel 3090. Paired with SP5

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Populus balsamifera</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>40%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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>2m</u> )				
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>1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Hedera helix</u>		<u>95%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Polystichum munitum</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>100%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2m</u> )				
1. <u>none</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WMI-09b-SP6</b>
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-7	10YR 3/3	100					Gravelly SL
7-16	10YR 4/2	99	10YR 5/8	1	C	M	Gravelly SL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton / Pierce County Sampling Date: June 20, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-10-SP1**  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Slope \_\_\_\_\_ Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.254277 Long: -122.336066 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland. Paired with SP2

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>33%</u> (A/B)
1. <u>none</u>					
2. _____					
3. _____					
4. _____					
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2m</u> )				<b>Prevalence Index worksheet:</b> 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>		40%	Yes	FAC	
2. _____					
3. _____					
4. _____					
5. _____					
		40% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Vinca minor</u>		50%	Yes	NOL	
2. <u>Anthemis cotula</u>		40%	Yes	FACU	
3. <u>Cirsium vulgare</u>		5%	No	FACU	
4. <u>Holcus lanatus</u>		10%	No	FAC	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		105% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>2m</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>none</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**  
Vinca minor presumed FACU/UPL based on observations of growth in upland soils with no wetland hydrology.

<b>SOIL</b>							<b>Sampling Point:</b> WMI-10-SP1
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-16	10YR 3/3	100					GrL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <u>      </u> No <u>  X  </u>
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**Remarks:**  
Soils are very compacted.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Milton / Pierce County Sampling Date: June 20, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-10-SP2  
 Investigator(s): Anna Hoenig and Aaron Thom Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.254558 Long: -122.336086 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PSS wetland sampling point.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Crataegus monogyna</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	<b>Prevalence Index worksheet:</b> 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.	_____	_____	_____	_____	
100% = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>2m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Rosa nutkana</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
50% = Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>1m</u> )				
1.	<u>Agrostis capillaris</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Holcus lanatus</u>	<u>20%</u>	<u>No</u>	<u>FAC</u>	
3.	<u>Chamaenerion angustifolium</u>	<u>15%</u>	<u>No</u>	<u>FACU</u>	
4.	<u>Juncus effusus</u>	<u>10%</u>	<u>No</u>	<u>FACW</u>	
5.	<u>Juncus tenuis</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
6.	<u>Carex obnupta</u>	<u>5%</u>	<u>No</u>	<u>OBL</u>	
7.	<u>Prunella vulgaris</u>	<u>3%</u>	<u>No</u>	<u>FACU</u>	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
118% = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>2m</u> )				
1.	<u>none</u>	_____	_____	_____	
2.	_____	_____	_____	_____	
0% = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-5	10YR 5/2	100					L	
5-16	10YR 5/1	85	7.5YR 4/6	15	C	M, PL	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<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 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)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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 type="checkbox"/> No <input checked="" type="checkbox"/>	
Depth (inches): _____	
Depth (inches): _____	
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: TDLE City/County: Federal Way / King County Sampling Date: June 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-11-SP1  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 6 21N 4E  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.256187 Long: -122.336493 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO SP for WMI-11 paired with WMI-11-SP2.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)
1. <u>Fraxinus latifolia</u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Populus balsamifera</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____		_____	_____	_____	
		<u>90%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b>		(Plot size: <u>r = 2m</u> )			
1. <u>Fraxinus latifolia</u>		<u>20%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Alnus rubra</u>		<u>15%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Populus balsamifera</u>		<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>45%</u> = Total Cover			
<b>Herb Stratum</b>		(Plot size: <u>r = 1m</u> )			
1. <u>Agrostis capillaris</u>		<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Phalaris arundinacea</u>		<u>20%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Juncus effusus</u>		<u>20%</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Carex obnupta</u>		<u>10%</u>	<u>No</u>	<u>OBL</u>	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>90%</u> = Total Cover			
<b>Woody Vine Stratum</b>		(Plot size: <u>r = 2m</u> )			
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>10%</u>			<b>Hydrophytic Vegetation Present?</b> 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 6	2.5 Y 4/2	80	10 YR 4/6	20	C	M, PL	SiCL	
6 - 16	10 Y 5/1	60	10 YR 5/8	40	C	M, PL	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No _____
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**Remarks:**  
Soils are compacted.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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 checked="" 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)	<b>Secondary Indicators (2 or more required)</b> <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 checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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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: TDLE City/County: Federal Way / King County Sampling Date: June 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMI-11-SP2  
 Investigator(s): Kaylee Moser and Aaron Thom Section, Township, Range: 6 20N 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.256224 Long: -122.336508 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation N, Soil N, or Hydrology N 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>	<b>Is the Sampled Area within a Wetland?</b>
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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Located on upland berm paired with WMI-11-SP1.

**VEGETATION**

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
(Plot size: <u>r = 3m</u> )				
1. <u>Acer macrophyllum</u>	<u>90%</u>	<u>Yes</u>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>      </u> Multiply by: <u>      </u>
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
90% = Total Cover				OBL species <u>      </u> x 1 = <u>      </u>
<b>Sapling/Shrub Stratum</b>				FACW species <u>      </u> x 2 = <u>      </u>
(Plot size: <u>r = 2m</u> )				FAC species <u>      </u> x 3 = <u>      </u>
1. <u>Rubus ursinus</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	FACU species <u>      </u> x 4 = <u>      </u>
2. <u>Rubus armeniacus</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	UPL species <u>      </u> x 5 = <u>      </u>
3. <u>Rubus parviflorus</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	Column Totals: <u>      </u> (A) <u>      </u> (B)
4. <u>Fraxinus latifolia</u>	<u>2%</u>	<u>No</u>	<u>FACW</u>	Prevalence Index = B/A = <u>      </u>
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
82% = Total Cover				
<b>Herb Stratum</b>				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
(Plot size: <u>r = 1m</u> )				
1. <u>Agrostis capillaris</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Phalaris arundinacea</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Lotus corniculatus</u>	<u>1%</u>	<u>No</u>	<u>FAC</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>	
21% = Total Cover				
<b>Woody Vine Stratum</b>				
(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				
<b>% Bare Ground in Herb Stratum</b>	<u>79%</u>			

**Remarks:**

<b>SOIL</b>						<b>Sampling Point:</b> WMI-11-SP2		
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features			Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 7	2.5 Y 4/2	100					SiCL	
7 - 16	2.5 Y 5/2	95	10 YR 5/8	5			SiCL	

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

<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	<sup>3</sup> 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 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)				

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<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)		

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: July 10, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-12-SP1**  
 Investigator(s): Shelby Petro and Aaron Thom Section, Township, Range: 31 21N 4E  
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.259713 Long: -122.336987 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO wetland, paired with SP2

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>		95%	Yes	FAC	
2. <u>Fraxinus latifolia</u>		5%	No	FACW	
3. _____					
4. _____					
5. _____					
		100% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. <u>Urtica dioica</u>		20%	Yes	FAC	
2. <u>Phalaris arundinacea</u>		10%	Yes	FACW	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		30% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. <u>None</u>					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>70%</u>			

**Remarks:**

<b>SOIL</b>							<b>Sampling Point:</b> WMI-12-SP1	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 18	10 YR 4/2	95	10 YR 5/6	5	C	M	L	Cobbles

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No _____
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
<b>Primary Indicators (minimum of one required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input 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)	<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 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)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
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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: TDLE City/County: Federal Way / King County Sampling Date: July 10, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-12-SP2**  
 Investigator(s): Shelby Petro and Aaron Thom Section, Township, Range: 31 21N 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.259748 Long: -122.336950 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 SeaTac NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 upland, paired with SP1

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</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>60%</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			<b>Prevalence Index worksheet:</b> 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>Corylus cornuta</u>		<u>30%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Rubus armeniacus</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Sambucus racemosa</u>		<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
4. <u>Spiraea douglasii</u>		<u>5%</u>	<u>No</u>	<u>FACW</u>	
5. _____		_____	_____	_____	
		<u>75%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Equisetum telmateia</u>		<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Polystichum munitum</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Urtica dioica</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>50%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>50%</u>			<b>Hydrophytic Vegetation Present?</b> 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0 - 4	10 YR 4/2	100					L	
4 - 16	10 YR 4/2	99	10 YR 5/6	1	C	M	L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way / King County Sampling Date: July 10, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMI-12-SP3**  
 Investigator(s): Shelby Petro and Aaron Thom Section, Township, Range: 31 21N 4E  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.259253 Long: -122.336949 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - Non-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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 PFO wetland

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
1. <u>Fraxinus latifolia</u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Alnus rubra</u>		<u>35%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Thuja plicata</u>		<u>5%</u>	<u>No</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____		_____	_____	_____	
		<u>100%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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 = _____
<b>Sapling/Shrub Stratum</b>		(Plot size: <u>r = 2m</u> )			
1. <u>Spiraea douglasii</u>		<u>5%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Rosa nutkana</u>		<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>10%</u> = Total Cover			
<b>Herb Stratum</b>		(Plot size: <u>r = 1m</u> )			
1. <u>Phalaris arundinacea</u>		<u>80%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>		<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>100%</u> = Total Cover			
<b>Woody Vine Stratum</b>		(Plot size: <u>r = 1m</u> )			
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____

**Remarks:**

SOIL							Sampling Point:	WMI-12-SP3
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0 - 5	10 YR 2/2	100					L	
5 - 10	10 YR 2/1	95	7.5 YR 4/6	5	C	M, PL	L	
10 - 16	2.5 Y 4/1	70	5 YR 5/8	30	C	M	L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :		
<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 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)				

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

<b>Restrictive Layer (if present):</b>	<b>Hydric Soil Present?</b>
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 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"/> Other (Explain in Remarks)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
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:

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

Project/Site: TDLE City/County: Federal Way/King Sampling Date: 1/29/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP01  
 Investigator(s): A. Hoenig, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.260161 Long: -122.331102 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - Hydric NWI classification: PFO1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        Ref Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is located in Wetland WMIFW-01, at the toe of slope on the west bank of West Hylebos Creek near wetland flag 8. This is a PSS sample point.

**VEGETATION**

<u>Tree Stratum</u>	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b>	
(Plot size: <u>r=3m</u> )				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
1. <u>none</u>				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
2. <u>      </u>				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100%</u> (A/B)
3. <u>      </u>				<b>Prevalence Index worksheet:</b>	
4. <u>      </u>				Total % Cover of:	Multiply by:
5. <u>      </u>				OBL species	x 1 =
	<u>0%</u>	<u>      </u>	<u>      </u>	FACW species	x 2 =
	<u>0%</u> = Total Cover			FAC species	x 3 =
<b><u>Sapling/Shrub Stratum</u></b>				FACU species	x 4 =
(Plot size: <u>r=2m</u> )				UPL species	x 5 =
1. <u>Rubus spectabilis</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	Column Totals:	<u>      </u> (A) <u>      </u> (B)
2. <u>Rubus armeniacus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index = B/A =	
3. <u>      </u>				<b>Hydrophytic Vegetation Indicators:</b>	
4. <u>      </u>				<u>      </u> 1 - Rapid Test for Hydrophytic Vegetation	
5. <u>      </u>				<u>X</u> 2 - Dominance Test is >50%	
6. <u>      </u>				<u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
7. <u>      </u>				<u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. <u>      </u>				<u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
9. <u>      </u>				<u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>	
10. <u>      </u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
11. <u>      </u>				<b>Hydrophytic Vegetation Present?</b>	Yes <u>X</u> No <u>      </u>
	<u>70%</u>	<u>      </u>	<u>      </u>		
	<u>70%</u> = Total Cover				
<b><u>Herb Stratum</u></b>					
(Plot size: <u>r=1m</u> )					
1. <u>Athyrium cyclosorum</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>		
2. <u>Lysichiton americanus</u>	<u>15%</u>	<u>No</u>	<u>OBL</u>		
3. <u>Urtica dioica</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>		
4. <u>Tolmiea menziesii</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>		
5. <u>      </u>					
6. <u>      </u>					
7. <u>      </u>					
8. <u>      </u>					
9. <u>      </u>					
10. <u>      </u>					
11. <u>      </u>					
	<u>115%</u>	<u>      </u>	<u>      </u>		
	<u>115%</u> = Total Cover				
<b><u>Woody Vine Stratum</u></b>					
(Plot size: <u>r=2m</u> )					
1. <u>none</u>					
2. <u>      </u>					
	<u>0%</u>	<u>      </u>	<u>      </u>		
	<u>0%</u> = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/2	100					SiL	
8-14	10YR 2/2	93	5YR 3/3	7	C	M	SiL	
14-16	10YR 2/1	70	7.5YR 3/4	10	C	M	GrL	
			10YR 4/2	20	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>  <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)  <sup>3</sup> 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 checked="" 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 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)	

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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 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"/> Other (Explain in Remarks)

<b>Field Observations:</b> 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>2</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	<b>Wetland Hydrology Present?</b> 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:**  
Surface water was present at about 1 foot adjacement to sample point.

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

Project/Site: TDLE City/County: Federal Way/King Sampling Date: 1/29/2020  
**WMIFW-01-**  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP02  
 Investigator(s): A. Hoenig, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.260175 Long: -122.331286 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Bellingham silt loam - Bh - Hydric NWI classification: PFO1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This upland sample point is associated with WMIFW-01 PFO sample point. The sample point is west of West Hylebos creek .

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Alnus rubra</u>	<u>60%</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>60%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus armeniacus</u>	<u>15%</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>65%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Polystichum munitum</u>	<u>85%</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>85%</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </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				
<b>% Bare Ground in Herb Stratum</b> <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 <sup>1</sup>		
0-10	10YR 3/2	98	10YR 4/3	2	C	M	L
10-18	2.5Y 5/3	99	10YR 4/4	1	C	M	L

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>  <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)  <sup>3</sup> 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)	

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

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)
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<b>Field Observations:</b> 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): _____	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way/King Sampling Date: 1/29/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP03  
 Investigator(s): A. Hoenig, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Hillslope \_\_\_\_\_ Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258502 Long: -122.332302 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - KpD - Not Hydric NWI classification: PFO1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is the PSS sample point associated with WMIFW-01. It is located east of West Hylebos Creek. The hillslope seeps into the stream valley.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Alnus rubra</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>70%</u> = Total Cover				<b>Prevalence Index worksheet:</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer circinatum</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Ribes divaricatum</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>120%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Urtica dioica</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>5%</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				
<b>% Bare Ground in Herb Stratum</b>	<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 <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/1	100					Gr Lo	mucky
3-10	10YR 2/2	100					Gr Lo	mucky, w cobbles
10-16	5GY 5/1	84	10YR 4/6	15	C	M	GrSaLo	w some cobbles
			5GY 4/1	1	C	M		

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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 checked="" 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 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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>N/A</u>	<b>Hydric Soil Present?</b> 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 checked="" 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 checked="" 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)	

<b>Field Observations:</b> Surface Water Present?    Yes <u>X</u> No <u>      </u> Depth (inches): <u>1</u> Water Table Present?      Yes <u>X</u> No <u>      </u> Depth (inches): <u>surface</u> Saturation Present?        Yes <u>X</u> No <u>      </u> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> 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:**  
Surface water was observed both upslope and downslope of this sample point.



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

Project/Site: TDLE City/County: Federal Way/King Sampling Date: 1/29/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP04  
 Investigator(s): A. Hoenig, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258494 Long: -122.332132 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - KpD - Not Hydric NWI classification: PFO1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point is the paired upland plot to WMIFW-01-SP3 and is located on a hillslope on the east side of West Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Acer macrophyllum</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
20% = Total Cover				
<b><u>Sapling/Shrub Stratum</u></b> (Plot size: <u>r=2m</u> )				
1. <u>Acer circinatum</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus ursinus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
90% = Total Cover				
<b><u>Herb Stratum</u></b> (Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Polystichum munitum</u>	<u>50%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = Total Cover				
<b><u>Woody Vine Stratum</u></b> (Plot size: <u>r=2m</u> )				
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
<b>% Bare Ground in Herb Stratum</b>	<u>50%</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 <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/1	100					L	
7-16	7.5YR 5/2	100					CL	

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b>      Yes <u>      </u>      No <u>  X  </u></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input checked="" type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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><b>Field Observations:</b></p> <p>Surface Water Present?    Yes <u>      </u>    No <u>  X  </u>    Depth (inches): <u>      </u></p> <p>Water Table Present?      Yes <u>  X  </u>    No <u>      </u>    Depth (inches): <u>  14  </u></p> <p>Saturation Present?      Yes <u>  X  </u>    No <u>      </u>    Depth (inches): <u>  10  </u></p> <p>(includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>      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:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range, resulting in wetter than normal conditions. Water flows down this steep slope (>10%) and does not stay long enough to result in wetland vegetation and hydric soils.

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

Project/Site: TDLE City/County: Federal Way/King Sampling Date: 1/30/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP05  
 Investigator(s): M. Murphy, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258972 Long: -122.332339 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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           , Soil           , or Hydrology            significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>          </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> 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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 This sample point is the upland pit paired with WMIFW-01-SP6. It is located 15 feet west of the toe of slope, west of West Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>17%</u> (A/B)
1. <u>Pseudotsuga menziesii</u>	<u>80%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Acer macrophyllum</u>	<u>80%</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>	
<u>160%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Oemleria cerasiformis</u>	<u>70%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Rubus ursinus</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Cornus alba</u>	<u>20%</u>	<u>No</u>	<u>FACW</u>	
4. <u>Rubus spectabilis</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
5. <u>                                  </u>	<u>          </u>	<u>          </u>	<u>          </u>	
<u>140%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>          </u> No <u>X</u>
1. <u>Polystichum munitum</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Tolmiea menziesii</u>	<u>10%</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>	
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> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</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				
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-10	2.5Y 4/1	98	2.5Y 5/3	1	C	M	SiL	
			7.5YR 5/8	1	C	M		
10-16	2.5Y 6/3	98	7.5YR 5/4	2	C	M	SiCL	

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input checked="" type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>none</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b>      Yes <u>  </u> <b>X</b> <u>  </u>      No <u>  </u></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</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 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><b>Field Observations:</b></p> <p>Surface Water Present?      Yes <u>  </u>      No <u>  </u> <b>X</b> <u>  </u>      Depth (inches): <u>  </u></p> <p>Water Table Present?      Yes <u>  </u>      No <u>  </u> <b>X</b> <u>  </u>      Depth (inches): <u>  </u></p> <p>Saturation Present? (includes capillary fringe)      Yes <u>  </u>      No <u>  </u> <b>X</b> <u>  </u>      Depth (inches): <u>  </u></p>	<p><b>Wetland Hydrology Present?</b>      Yes <u>  </u>      No <u>  </u> <b>X</b> <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: TDLE City/County: Federal Way/King Sampling Date: 1/30/2020  
**WMIFW-01-SP06**  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP06  
 Investigator(s): M. Murphy, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.258949 Long: -122.332272 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - Not Hydric NWI classification: PFO1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If no, explain in Remarks)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Sample point located in a depression on the west side of West Hylebos Creek. This is a sampling a PFO area, near groundwater seepage zone.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100%</u> (A/B)
1. <u>Alnus rubra</u>	<u>80%</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>80%</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> 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>Acer circinatum</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus spectabilis</u>	<u>10%</u>	<u>No</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>100%</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>      </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Lysichiton americanus</u>	<u>40%</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Urtica dioica</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Tolmiea menziesii</u>	<u>10%</u>	<u>No</u>	<u>FAC</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>70%</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </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			
<b>% Bare Ground in Herb Stratum</b> <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 <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/2	100					L	mucky
6-16	10Y 5/1	100					Clay	

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

<sup>3</sup>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 Soils <sup>3</sup> :
<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 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)	

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

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

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Salt Crust (B11) <input checked="" 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"/> 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 checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> 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>6</u> Saturation Present? (includes capillary fringe)      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way/King Sampling Date: 2/4/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP07  
 Investigator(s): A. Hoenig, A. Thom Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.259142 Long: -122.330786 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - KpD - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>      </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> 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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland sample point, paired w WMIFW-01-SP08. Located east (left bank) of West Fork Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</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>0%</u> (A/B)
1. <u>Acer macrophyllum</u>	<u>90%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Pseudotsuga menziesii</u>	<u>40%</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>	
<u>130%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> <u>      </u> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Oemleria cerasiformis</u>	<u>50%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Acer macrophyllum</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Rubus spectabilis</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
<u>80%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Polystichum munitum</u>	<u>40%</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>40%</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				
<b>% Bare Ground in Herb Stratum</b> <u>60%</u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>X</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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	100					L	some O.M.
8-12	10YR 3/3	100					L	
12-18	2.5Y 5/3	100					CL	

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

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

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> 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 type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> 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): _____	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Federal Way/King Sampling Date: 2/4/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP08  
 Investigator(s): A. Thom, M. Murphy Section, Township, Range: T21N R04E S32 SWSW  
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): concave Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.259160 Long: -122.330885 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 15 to 30 percent slopes - KpD - 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           , Soil           , or Hydrology            significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>          </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PSS wetlands SP for WMIFW-01. It is located in the toe of slope east of West Hylebos Creek and paried with WMIFW-01-SP7.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	<b>Dominance Test worksheet:</b>	
1. <u>none</u>	<u>          </u>	<u>          </u>	<u>          </u>	Number of Dominant Species	
2. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	That Are OBL, FACW, or FAC: <u>4</u> (A)	
3. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	Total Number of Dominant	
4. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	Species Across All Strata: <u>5</u> (B)	
<u>0%</u> = Total Cover				Percent of Dominant Species	
<b><u>Sapling/Shrub Stratum</u></b> (Plot size: <u>r=2m</u> )				That Are OBL, FACW, or FAC: <u>80%</u> (A/B)	
1. <u>Rubus spectabilis</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b>	
2. <u>Oemleria cerasiformis</u>	<u>15%</u>	<u>Yes</u>	<u>FACU</u>	Total % Cover of: <u>          </u> Multiply by: <u>          </u>	
3. <u>Ribes divaricatum</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	OBL species <u>          </u> x 1 = <u>          </u>	
4. <u>Acer circinatum</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>	FACW species <u>          </u> x 2 = <u>          </u>	
5. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	FAC species <u>          </u> x 3 = <u>          </u>	
<u>47%</u> = Total Cover				FACU species <u>          </u> x 4 = <u>          </u>	
<b><u>Herb Stratum</u></b> (Plot size: <u>r=1m</u> )				UPL species <u>          </u> x 5 = <u>          </u>	
1. <u>Lysichiton americanus</u>	<u>80%</u>	<u>Yes</u>	<u>OBL</u>	Column Totals: <u>          </u> (A) <u>          </u> (B)	
2. <u>Athyrium cyclosorum</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index = B/A = <u>          </u>	
3. <u>Urtica dioica</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b>	
4. <u>Hydrophyllum tenuipes</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	<u>1</u> - Rapid Test for Hydrophytic Vegetation	
5. <u>Tolmiea menziesii</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	<u>X</u> <u>2</u> - Dominance Test is >50%	
6. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>	
7. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>5</u> - Wetland Non-Vascular Plants <sup>1</sup>	
9. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>	
10. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
11. <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>		
<u>136%</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>          </u>	
<b><u>Woody Vine Stratum</u></b> (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					
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**

<b>SOIL</b>							<b>Sampling Point: WMIFW-01-SP08</b>	
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>								
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 2/1	100					L	mucky
4-8	7.5Y 2.5/1	100					L	mucky
8-10	7.5YR 2.5/2	100					L	
10-16	10YR 4/1	85	7.5YR 2.5/2	10			CL	
			10YR 5/1	5				
16-24	5YR 2.5/1	100					Muck	Includes decaying log
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. <sup>3</sup> Texture: Sa = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)								
<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>					<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<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 checked="" 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)			<sup>3</sup> 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)					
<b>Restrictive Layer (if present):</b>						<b>Hydric Soil Present?</b>		
Type: <u>none</u>						Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Depth (inches): <u>N/A</u>								
<b>Remarks:</b>								
<b>HYDROLOGY</b>								
<b>Wetland Hydrology Indicators:</b>								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (2 or more required)			
<input checked="" 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 checked="" 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 checked="" 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 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)								
<b>Field Observations:</b>						<b>Wetland Hydrology Present?</b>		
Surface Water Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches):	<u>1</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Water Table Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches):	<u>surface</u>				
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches):	<u>surface</u>				
<b>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</b>								
<b>Remarks:</b>								

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

Project/Site: TDLE City/County: Federal Way/King Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP09  
 Investigator(s): K. Moser, M. Murphy Section, Township, Range: T21N R04E S32  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.261329 Long: -122.327810 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 The PEM wetland SP is located along the eastern edge of the wetland within the I-5 ROW. It is part of a large wetland associated with the West Hylebos Creek.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>					
<b>Sapling/Shrub Stratum</b> (Plot size: <u>r=2m</u> )		0% = Total Cover			
1. <u>Rubus armeniacus</u>		30%	Yes	FAC	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
<b>Herb Stratum</b> (Plot size: <u>r=1m</u> )		30% = Total Cover			
1. <u>Phalaris arundinacea</u>		95%	Yes	FACW	
2. <u>Galium aparine</u>		5%	No	FACU	
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>					
<b>Woody Vine Stratum</b> (Plot size: <u>r=2m</u> )		100% = Total Cover			
1. <u>none</u>					
2. <u>      </u>					
<b>% Bare Ground in Herb Stratum</b>		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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	100					L	
8-16	10YR 4/2	90	10YR 4/6	10	C	M	GrSaL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>  </u> <b>X</b> No <u>  </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 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"/> 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)	

<b>Field Observations:</b> Surface Water Present?    Yes <u>  </u> No <u>  </u> <b>X</b> Depth (inches): <u>  </u> Water Table Present?      Yes <u>  </u> <b>X</b> No <u>  </u> Depth (inches): <u>  13</u> Saturation Present?        Yes <u>  </u> <b>X</b> No <u>  </u> Depth (inches): <u>  10</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>  </u> <b>X</b> 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: TDLE City/County: Federal Way/King Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WMIFW-01-SP10  
 Investigator(s): K. Moser, M. Murphy Section, Township, Range: T21N R04E S32  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.261240 Long: -122.327731 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> 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 NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 Upland SP paired with and located upslope of WMIFW-01-SP9.

**VEGETATION**

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
(Plot size: r=3m)				Number of Dominant Species
1. <u>Malus x domestica</u>	<u>60%</u>	<u>Yes</u>	<u>NL</u>	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. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>
_____	<u>60%</u> = Total Cover			Total % Cover of: _____ Multiply by: _____
<b>Sapling/Shrub Stratum</b> (Plot size: r=2m)				OBL species _____ x 1 = _____
1. <u>Rubus armeniacus</u>	<u>80%</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>80%</u> = Total Cover			Prevalence Index = B/A = _____
<b>Herb Stratum</b> (Plot size: r=1m)				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Phalaris arundinacea</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	1 - Rapid Test for Hydrophytic Vegetation
2. <u>Cardamine oligosperma</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	<u>X</u> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. _____	_____	_____	_____	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____	_____	_____	_____	Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	<u>35%</u> = Total Cover			
<b>Woody Vine Stratum</b> (Plot size: r=2m)				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
_____	<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>65%</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 <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/2	100					L	
10-16	10YR 3/2	100					GrL	

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

<p><b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b></p> <p><input type="checkbox"/> Histosol (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Sandy Redox (S5)</span></p> <p><input type="checkbox"/> Histic Epipedon (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Stripped Matrix (S6)</span></p> <p><input type="checkbox"/> Black Histic (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</span></p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <span style="margin-left: 150px;"><input type="checkbox"/> Loamy Gleyed Matrix (F2)</span></p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Matrix (F3)</span></p> <p><input type="checkbox"/> Thick Dark Surface (A12) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Dark Surface (F6)</span></p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <span style="margin-left: 150px;"><input type="checkbox"/> Depleted Dark Surface (F7)</span></p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <span style="margin-left: 150px;"><input type="checkbox"/> Redox Depressions (F8)</span></p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>none</u></p> <p>Depth (inches): <u>n/a</u></p>	<p><b>Hydric Soil Present?</b>      Yes <input type="checkbox"/>      No <input checked="" type="checkbox"/></p>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1) <span style="margin-left: 150px;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</span></p> <p><input type="checkbox"/> High Water Table (A2) <span style="margin-left: 150px;"><input type="checkbox"/> Salt Crust (B11)</span></p> <p><input type="checkbox"/> Saturation (A3) <span style="margin-left: 150px;"><input type="checkbox"/> Aquatic Invertebrates (B13)</span></p> <p><input type="checkbox"/> Water Marks (B1) <span style="margin-left: 150px;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</span></p> <p><input type="checkbox"/> Sediment Deposits (B2) <span style="margin-left: 150px;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</span></p> <p><input type="checkbox"/> Drift Deposits (B3) <span style="margin-left: 150px;"><input type="checkbox"/> Presence of Reduced Iron (C4)</span></p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <span style="margin-left: 150px;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</span></p> <p><input type="checkbox"/> Iron Deposits (B5) <span style="margin-left: 150px;"><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</span></p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <span style="margin-left: 150px;"><input type="checkbox"/> Other (Explain in Remarks)</span></p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>	<p>Secondary Indicators (2 or more required)</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><b>Field Observations:</b></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? (includes capillary fringe)    Yes <input type="checkbox"/>    No <input checked="" type="checkbox"/>    Depth (inches): _____</p>	<p><b>Wetland Hydrology Present?</b>      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:**

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

Project/Site: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMIFW-01-SP11**  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): valley floor Local relief (concave, convex, none): none Slope (%): None  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.257318 Long: -122.334967 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Wetland sample point for WMIFW-01 PEM cowardin class.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> 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> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>		80%	Yes	FACW	
2. <u>Equisetum telmateia</u>		20%	No	FACW	
3. <u>Urtica dioica</u>		10%	No	FAC	
4. <u>Ribes divaricatum</u>		5%	No	FAC	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		115% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. _____					
2. _____					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-2	10 YR 3/1	100					SaL	
2-12	10 YR 3/1	50	10 YR 4/6	10	C	M	SaL	
	10 YR 3/2	40					Lsa	
12-16	10 YR 2/1	95	10 YR 4/6	5	C	M	SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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 Soils <sup>3</sup> :
<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)	

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

<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>None</u></p> <p>Depth (inches): <u>n/a</u></p>	<p><b>Hydric Soil Present?</b></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)
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 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)		

<p><b>Field Observations:</b></p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Depth (inches): <u>          </u></p> <p>Depth (inches): <u>13</u></p> <p>Depth (inches): <u>5</u></p>	<p><b>Wetland Hydrology Present?</b></p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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: TDLE City/County: Federal Way / King County Sampling Date: May 23, 2023  
 Applicant/Owner: Sound Transit State: WA Sampling Point: **WMIFW-01-SP12**  
 Investigator(s): Amanda Weiss and Kaylee Moser Section, Township, Range: 5, 20N, 4E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5-10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.257324 Long: -122.335002 Datum: NAD 83  
 Soil Unit (Name-ID-Hydric Rating): Kitsap silt loam, 2 to 8 percent slopes - KpB - 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N 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 _____	<b>Is the Sampled Area within a Wetland?</b>	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 SeaTac NOAA weather station, precipitation was within the normal range for the three months prior to the site visit.

**Remarks:**  
 Upland sample print for WMIFW-01

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r = 3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>100%</u> (A/B)
1. <u>Fraxinus latifolia</u>		<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		<u>60%</u> = Total Cover			<b>Prevalence Index worksheet:</b> 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>4</u> (A) <u>4</u> (B) Prevalence Index = B/A = _____
<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>Lonicera involucrata</u>		<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
		<u>70%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r = 1m</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Equisetum telmateia</u>		<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Tellima grandiflora</u>		<u>5%</u>	<u>No</u>	<u>FACU</u>	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		<u>45%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r = 1m</u> )				
1. <u>None</u>		_____	_____	_____	
2. _____		_____	_____	_____	
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>55%</u>					
<b>Hydrophytic Vegetation Present?</b> 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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10 YR 4/2	90	10 YR 4/6	10			CL	
6-16	2.5 Y 4/3	95	10 YR 4/6	5	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>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)

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>None</u> Depth (inches): <u>n/a</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No <u>      </u>
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**Remarks:**

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (2 or more required)</b> <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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: TDLE City/County: Tacoma/Pierce Sampling Date: 10/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WPCFI-02-SP1  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S06  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.243640 Long: -122.339555 Datum: NAD 1983 (HARN)  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam, 0 to 2 percent slopes - 42A - 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       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b>	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:**  
 PEM wetland sample plot near the south west corner of a partially fenced reed canary grass field.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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>Rubus armeniacus</u>		10%	Yes	FAC	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		10% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				
1. <u>Phalaris arundinacea</u>		100%	Yes	FACW	
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>					
		100% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				
1. <u>none</u>					
2. <u>      </u>					
		0% = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>0%</u>			

**Remarks:**

SOIL								Sampling Point: WPCFI-02-SP1
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-10	10YR 2/2	95	7.5YR 3/4	5	C	PL, M	SiL	roots present
10-18	2.5Y 2.5/1	93	10YR 3/4	7	C	PL, M	SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :		
<input type="checkbox"/> Histic Epipedon (A2)	<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 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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>n/a</u> Depth (inches): _____	<b>Hydric Soil Present?</b> 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 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 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)	

<b>Field Observations:</b> 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? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (includes capillary fringe)	Depth (inches): _____ Depth (inches): 14 Depth (inches): surface	<b>Wetland Hydrology Present?</b> 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 was revisited at the end of the site visit to collect a final water table measurement. Water table was slow to reach equilibrium due to clay content in soil matrix and likely would have met the 12 inch requirement given more time. Ponding observed approximately 8 feet from sample plot.

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

Project/Site: TDLE City/County: Tacoma/Pierce Sampling Date: 10/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WPCFI-02-SP2  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S06  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.243717 Long: -122.339579 Datum: NAD 1983 (HARN)  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam, 0 to 2 percent slopes - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b>	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:**  
 PSS wetland sample plot located near proposed borehole AB-20 in dense Himalayan blackberry under a rooted black locust sapling. Depression is lower than neighboring reed canary grass field.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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. _____					
		<u>0%</u>		= Total Cover	
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <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 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>5</u> - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Robinia pseudoacacia</u>		<u>10%</u>	<u>No</u>	<u>FACU</u>	
3. _____					
4. _____					
5. _____					
		<u>110%</u>		= Total Cover	
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> 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> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>none</u>					
2. _____					
		<u>0%</u>		= Total Cover	
<b>% Bare Ground in Herb Stratum</b> <u>0%</u>					

**Remarks:**

SOIL								Sampling Point: WPCFI-02-SP2
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-7	10YR 4/2	97	7.5YR 5/8	3	C	M	SiCL	
7-16	10YR 4/2	65	7.5YR 5/8	10	C	M	SiCL	mixed matrix
7-16	5Y 5/1	35						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :		
<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)				

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

<b>Restrictive Layer (if present):</b> Type: <u>n/a</u> Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <u>X</u> No _____
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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 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 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)

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

Remarks:  
 Between end of dry season and beginning of wet season.

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

Project/Site: TDLE City/County: Tacoma/Pierce Sampling Date: 10/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WPCFI-02-SP3  
 Investigator(s): Anna Hoenig, Aaron Thom Section, Township, Range: T20N R04E S06  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.243858 Long: -122.339614 Datum: NAD 1983 (HARN)  
 Soil Unit (Name-ID-Hydric Rating): Sultan silt loam, 0 to 2 percent slopes - 42A - 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 \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	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:**  
 Upland pit located just east of fenceline and upslope of PSS wetland depression.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>r=3m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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>Robinia pseudoacacia</u>	<u>80%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>80%</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r=2m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>r=1m</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Equisetum telmateia</u>	<u>15%</u>	<u>Yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>45%</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				
<b>% Bare Ground in Herb Stratum</b> <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 <sup>2</sup>	Texture <sup>3</sup>	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-10	10YR 3/2	100					GrSaL	
10-18	10YR 3/3	100					SiCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.    <sup>2</sup>Location: PL=Pore Lining, M=Matrix.  
<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	
<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)	

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

<b>Restrictive Layer (if present):</b> Type: <u>n/a</u> Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____      No <u>X</u>
---	--

**Remarks:**  
 Angular gravel appears to be fill.

**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) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<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)	

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> Yes _____      No <u>X</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: TDLE City/County: Tacoma, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WTA-01-SP1  
 Investigator(s): J. Wozniak and P. Johnson Section, Township, Range: T20N R03E S10 L 1  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <3%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.241260 Long: -122.400794 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): No Digital Data Available - NOTCOM - Unknown 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 Yes, 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>	<b>Is the Sampled Area within a Wetland?</b>	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 above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 PSS wetland SP located on the east bank of the Puyallup River on flood beach.  
 Vegetation naturally problematic because dominated by non-native weedy species. Bohemian knotweed is commonly found in riverine areas that are regularly flooded.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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. <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>Rubus armeniacus</u>		<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		<u>90%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				
1. <u>Polygonum x bohemia</u>		<u>30%</u>	<u>Yes</u>	<u>FACU</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>					
		<u>30%</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			
<b>% Bare Ground in Herb Stratum</b>		<u>70%</u>			

**Remarks:**  
 Plant community dominated by aggressive invasives. Bareground is covered in fresh alluvium.



ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Project No.: 554-1800-030

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

<b>SOIL</b>							<b>Sampling Point:</b> WTA-01-SP1
<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):</b>							
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>
0-16	10YR 3/2	97	10YR 4/4	5	C	M, PL	SaL

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

<b>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<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)	

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

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

**Remarks:**  
layered alluvial soils

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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 checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Aquatic Invertebrates (B13) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" 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)	<b>Secondary Indicators (2 or more required)</b> <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 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)

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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:**  
Puyallup River

**Remarks:**  
Oxidized rhizospheres at 8 to 16 inches. Puyallup River gage at Puyallup, Wa shows a pattern of regular inundation of this area.

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

Project/Site: TDLE City/County: Tacoma, Pierce County Sampling Date: 2/20/2020  
 Applicant/Owner: Sound Transit State: WA Sampling Point: WTA-01-SP2  
 Investigator(s): J. Wozniak and P. Johnson Section, Township, Range: T20N R03E S10 L 1  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): >10%  
 Subregion (LRR): Northwest Forests and Coast (LRR A) Lat: 47.241272 Long: -122.400791 Datum: NAD 1983  
 Soil Unit (Name-ID-Hydric Rating): No Digital Data Available - NOTCOM - Unknown 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>	<b>Is the Sampled Area within a Wetland?</b>
Hydric Soil Present?	Yes <u>      </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>      </u>	No <u>X</u>	
Yes <u>      </u> No <u>X</u>			

**Precipitation:**  
 According to the Seattle Tacoma International NOAA weather station, precipitation was above the normal range for the three months prior to the site visits in February.

**Remarks:**  
 SP is located on the side slope of a levee, uphill of SP-1.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>r=3m</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	<b>Dominance Test worksheet:</b> 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> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation (Explain) <sup>1</sup> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rubus armeniacus</u>		<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>      </u>					
3. <u>      </u>					
4. <u>      </u>					
5. <u>      </u>					
		<u>90%</u> = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>r=1m</u> )				<b>Hydrophytic Vegetation Present?</b>
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>					
		<u>0%</u> = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>r=2m</u> )				Yes <u>X</u> No <u>      </u>
1. <u>None</u>					
2. <u>      </u>					
		<u>0%</u> = Total Cover			
<b>% Bare Ground in Herb Stratum</b>		<u>100%</u>			

**Remarks:**

<b>SOIL</b>							Sampling Point:	WTA-01-SP2
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 <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-6	10YR 3/1	100					SaLo	
6-14+	varies						SaGr	rock, gravel spalls

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

<sup>3</sup>Texture: Sa = 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 <sup>3</sup> :
<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)	

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

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:																																	
Primary Indicators (minimum of one required; check all that apply) <table style="width:100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width: 33%;"><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</td> <td style="width: 33%;"><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>	<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)		
<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)																																	

<b>Field Observations:</b> 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)	<b>Wetland Hydrology Present?</b> 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: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/9/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V1  
 Investigators: DANIELSKI Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0  
 Subregion (LRR): A Lat: 47.292610 Long: -122.305954 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for 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 a site map showing sampling point locations, transects, important features, etc.

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

Remarks:  
 Verification plot in salmonberry dominated swale. Sample plot has 1 of 3 wetland indicators, is not located in a wetland. The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology.

## VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 5m)				<b>Dominance Test Worksheet:</b> 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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover			_____	
<b>Sapling/Shrub Stratum</b> (Plot size: 3m)				
1. <u>Rubus spectabilis</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Oemleria cerasiformis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
3. <u>Rubus ursinus</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover			_____	
<b>Herb Stratum</b> (Plot size: 1m)				
1. <u>Tolmiea menziesii</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover			_____	
<b>Woody Vine Stratum</b> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover			_____	
% Bare Ground in Herb Stratum <u>85</u>	% Cover of Biotic Crust _____			
<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>85</u> x3= <u>255</u> FACU species <u>10</u> x4= <u>40</u> UPL species _____ x5= <u>0</u> Column Totals: <u>95</u> (A) <u>295</u> (B)  Prevalence Index = B/A= <u>3.11</u>				
<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks:  
 Sample plot meets dominance test but does not meet prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: SP FW V1

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 3/3	100					Sandy Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<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 MLRLA 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)	

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

<p><b>Restrictive Layer (if present):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>    Yes _____ No _____ X _____</p>
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Remarks:  
Sample plot lacks indicators of hydric soil.

**HYDROLOGY**

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

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

Remarks:  
No primary or secondary wetland hydrology indicators observed.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/10/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V2  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.299988 Long: -122.304810 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes        No X (If No, explain in Remarks)  
 Are Vegetation:        Soil X or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Verification plot located in ditch south of S. 336th Street. Sample plot has 0 of 3 wetland indicators, is not located in a wetland. The preceding three months were wetter than normal; however, site visit occurred at end of the dry season so dry season conditions were still considered when evaluating hydrology.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species x1= _____ FACW species <u>5</u> x2= <u>10</u> FAC species <u>21</u> x3= <u>63</u> FACU species <u>18</u> x4= <u>72</u> UPL species <u>4</u> x5= <u>20</u> Column Totals: <u>48</u> (A) <u>165</u> (B)  <i>Prevalence Index = B/A= 3.44</i>
1. <u>Rubus armeniacus</u>	<u>4</u>	<u>No</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>4</u>	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hypochaeris radicata</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Agrostis capillaris</u>	<u>7</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Conium maculatum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. <u>Phalaris arundinacea</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
5. <u>Carduus nutans</u>	<u>4</u>	<u>No</u>	<u>UPL</u>	
6. <u>Claytonia sibirica</u>	<u>3</u>	<u>No</u>	<u>FAC</u>	
7. <u>Galium aparine</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	
8. <u>Ranunculus repens</u>	<u>2</u>	<u>No</u>	<u>FAC</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	<u>44</u>	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>      </u> X <u>      </u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum <u>56</u>	_____	% Cover of Biotic Crust _____	_____	

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: SP FW V2

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/2	100					Silt Loam	
16-18								Drain rock

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No   X  

Remarks:  
Sample plot lacks hydric soil indicators. Between horizon 1 and horizon 2 is a layer of geotextile fabric. Swale is clearly constructed and has drain rock liner to move water.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**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 Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No primary or secondary wetland hydrology indicators observed.



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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/22/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V3  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.292915 Long: -122.306824 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for 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 a site map showing sampling point locations, transects, important features, etc.

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

Remarks:  
 Conditions wetter than normal for time of year. Sample plot has 0 of 3 indicators, is not located in a wetland.

## VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 5m)				<b>Dominance Test Worksheet:</b> 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>Pseudotsuga menziesii</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
	<u>10</u>	<u>= Total Cover</u>		
<b>Sapling/Shrub Stratum</b> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>85</u> x3= <u>255</u> FACU species <u>15</u> x4= <u>60</u> UPL species _____ x5= <u>0</u> Column Totals: <u>100</u> (A) <u>315</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.15</u>
1. <u>Rubus armeniacus</u>	<u>85</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Prunus emarginata</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
3. _____				
4. _____				
	<u>90</u>	<u>= Total Cover</u>		
<b>Herb Stratum</b> (Plot size: 1m)				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
		<u>= Total Cover</u>		
<b>Woody Vine Stratum</b> (Plot size: )				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
1. _____				
2. _____				
		<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>100</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: SP FW V3

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/3	100					Sandy Loam	
8-18	10YR 4/6	100					Sandy Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No  X

Remarks:

Sample plot lacks hydric soil indicators.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**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 Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No primary or secondary hydrology indicators observed.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 10/22/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V4  
 Investigators: STORY, PACE Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 2  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.290462 Long: -122.309219 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for 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 a site map showing sampling point locations, transects, important features, etc.**

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

Remarks:  
 In stand of PSME on hill between off ramp and Walmart. Conditions wetter than normal for time of year. Sample plot has 0 of 3 wetland criteria, is not located in a wetland.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</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>0</u> (A/B)
1. <u>Pseudotsuga menziesii</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>80</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>3</u> x3= <u>9</u> FACU species <u>150</u> x4= <u>600</u> UPL species <u>5</u> x5= <u>25</u> Column Totals: <u>158</u> (A) <u>634</u> (B)  <i>Prevalence Index = B/A= <u>4.01</u></i>
1. <u>Gaultheria shallon</u>	<u>60</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Oemleria cerasiformis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
3. <u>Arbutus menziesii</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
4. <u>Thuja plicata</u>	<u>3</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
	<u>78</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>100</u>		% Cover of Biotic Crust _____		

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: SP FW V4

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/2	100					Silt Loam	Significant duff and leaf litter
6-18	10YR 4/6	100					Silt Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<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)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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 MLRLA 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)	

<p><b>Restrictive Layer (if present):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>    Yes _____ No _____ <b>X</b></p>
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Remarks:  
Sample plot lacks hydric soil indicators.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	
<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) ( <b>LRR A</b> )	
<input type="checkbox"/> Other (Explain in Remarks)	

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

Remarks:  
No primary or secondary hydrology indicators observed.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 12/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V5  
 Investigators: STORY, DANIELSKI Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Channel Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A - Northwestern Forest, Lat: 47.293034 Long: -122.306145 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot located in small side channel. Sample plot has 1 of 3 wetland criteria, is not located in a wetland.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Rubus armeniacus</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus laciniatus</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>    </u> X <u>    </u>
1. <u>Agrostis capillaris</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Pteridium aquilinum</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>50</u>	% Cover of Biotic Crust _____			

Remarks:  
 Sample plot does not meet dominance test or prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: SP FW V5

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 3/2	100					Sandy Loam	
9-12	10YR 3/3	100					Sandy Loam	Gravelly, compacted

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

**Remarks:**

Sample plot lacks hydric soil indicators.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 1.00  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 0.0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 0.0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

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

**Remarks:**

Plot in small side channel, possibly old roadbed. Flooded from recent rains. Sample plot meets primary hydrology indicators for surface water, high water table, and saturation.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 12/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V6  
 Investigators: STORY, DANIELSKI Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Channel Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A Lat: 47.292854 Long: -122.307457 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot lacks hydric soil and is not located within a wetland. Site visit occurred outside of growing season. During the site visit, leaves had already dropped and WETS table for Seattle Tacoma Airport, WA Station states that the median growing season occurs from 2/9 to 12/13.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>    3    </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>    60    </u> (A/B)
1. <u>Salix scouleriana</u>	<u>25</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>25</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>    </u> x2= <u>    0    </u> FAC species <u>    95    </u> x3= <u>    285    </u> FACU species <u>    55    </u> x4= <u>    220    </u> UPL species <u>    </u> x5= <u>    0    </u> Column Totals: <u>    150    </u> (A) <u>    505    </u> (B)  <i>Prevalence Index = B/A=</i> <u>    3.37    </u>
1. <u>Rubus spectabilis</u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus ursinus</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Rubus armeniacus</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>80</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Ranunculus repens</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Pteridium aquilinum</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Polystichum munitum</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>	
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>45</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>25</u>		% Cover of Biotic Crust <u>    </u>		

Remarks:  
 Sample plot meets dominance test but not prevalence index for hydrophytic vegetation. Hydrophytic species found in plot are primarily deep-rooted tree and shrub species that have access to a deeper water table.

**SOIL**

Sampling Point: SP FW V6

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 3/2	100					Sandy Loam	
9-12	10YR 3/3	100					Sandy Loam	Gravelly

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

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<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 MLRLA 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)		<sup>3</sup> 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)		

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

Remarks:  
Sample plot lacks hydric soil indicators.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water Stained Leaves (B9) ( <b>MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (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) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<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 (B)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b>	
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 1.0	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0	
(includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____

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

Remarks:  
Sample plot meets primary hydrology indicators for saturation and high water table.



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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 12/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V7  
 Investigators: Danielski, Story Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A Lat: 47.291878 Long: -122.307533 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot has 2 of 3 wetland indicators. Sample plot lacks hydric soil and is not located in a wetland. Site visit occurred outside of growing season. During the site visit, leaves had already dropped, and WETS table for Seattle Tacoma Airport, WA Station states that the median growing season occurs from 2/9 to 12/13.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>    3    </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>    60    </u> (A/B)
1. <u>Populus balsamifera</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Thuja plicata</u>	<u>10</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>25</u>	<u>= Total Cover</u>		
<b><u>Sapling/Shrub Stratum</u> (Plot size: 3m)</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>    50    </u> x2= <u>    100    </u> FAC species <u>    35    </u> x3= <u>    105    </u> FACU species <u>    10    </u> x4= <u>    40    </u> UPL species <u>    </u> x5= <u>    0    </u> Column Totals: <u>    95    </u> (A) <u>    245    </u> (B)  <i>Prevalence Index = B/A=</i> <u>    2.58    </u>
1. <u>Spiraea douglasii</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Rubus spectabilis</u>	<u>10</u>	<u>No</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>	<u>= Total Cover</u>		
<b><u>Herb Stratum</u> (Plot size: 1m)</b>				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> X 2 - Dominance Test is >50% <u>    </u> X 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) <u>    </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <u>    </u> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hedera helix</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Polystichum munitum</u>	<u>5</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>10</u>	<u>= Total Cover</u>		
<b><u>Woody Vine Stratum</u> (Plot size: )</b>				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>    90    </u>		% Cover of Biotic Crust <u>    </u>		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation. Hydrophytic species found in plot are primarily deep-rooted tree and shrub species that have access to a deeper water table.

**SOIL**

Sampling Point: SP FW V7

**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 <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 3/2	100					Sandy Loam	
9-14	10YR 3/3	100					Sandy Loam	
14-16	10YR 4/3	100					Sandy Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<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)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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 MLRLA 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)	

<p><b>Restrictive Layer (if present):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>    Yes _____ No <u>X</u></p>
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Remarks:  
Sample plot lacks hydric soil indicators.

**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) ( <b>except MRLA 1, 2, 4A, and 4B</b> )
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MRLA 1, 2, 4A, and 4B</b> )	
<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) ( <b>LRR A</b> )	
<input type="checkbox"/> Other (Explain in Remarks)	

<p><b>Field Observations:</b></p> <p>Surface Water Present?    Yes _____ No <u>X</u>    Depth (inches): _____</p> <p>Water Table Present?    Yes _____ No <u>X</u>    Depth (inches): <u>5.0</u></p> <p>Saturation Present?    Yes _____ No <u>X</u>    Depth (inches): <u>1.0</u></p> <p>(includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>    Yes _____ No <u>X</u></p>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Saturation at 1 inch and water table present at 5 inches. Sample plot meets primary hydrology indicators for saturation and high water table.

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

Project/Site: Sound Transit OMFS City/County: Federal Way, King Sampling Date: 12/19/2019  
 Applicant/Owner: Sound Transit State: WA Sampling Point: SP FW V8  
 Investigators: Danielski, Story Section, Township, Range: T21N R4E S21  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0  
 Subregion (LRR): A Lat: 47.292641 Long: -122.307724 Datum: WGS84  
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:  
 Sample plot has 1 of 3 wetland indicators and is not located in a wetland.

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> 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>100</u> (A/B)
1. <u>Populus balsamifera</u>	<u>40</u>	<u>Yes</u>	<u>FAC</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>60</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>130</u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>    </u> x2= <u>0</u> FAC species <u>130</u> x3= <u>390</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>130</u> (A) <u>390</u> (B)  Prevalence Index = B/A= <u>3.00</u>
1. <u>Rubus armeniacus</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Prunus occidentalis</u>	<u>7</u>	<u>Yes</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>17</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 1m)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Ranunculus repens</u>	<u>60</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>	
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>60</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>    </u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>40</u>		% Cover of Biotic Crust <u>    </u>		

Remarks:  
 Sample plot meets dominance test and prevalence index for hydrophytic vegetation.

**SOIL**

Sampling Point: SP FW V8

**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 <sup>1</sup>	Loc <sup>2</sup>		

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<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 MLRLA 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)	<sup>3</sup> 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):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No  X

Remarks:  
 Sample plot located on highly compacted gravel/cobble. Possibly former road grade. Unable to dig into soil, therefore soils not sampled.

**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) (MRLA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) (except MRLA 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 \_\_\_\_\_ 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Sample plot lacks primary and secondary indicators of wetland hydrology.