



March 4, 2022

Mr. Chris Beale, AICP
Senior Planner
City of Puyallup Planning Services
333 South Meridian
Puyallup, WA 98371

Re: Vector Development Company Freeman Road Logistics Warehouse: Third-Party Review of Critical Areas Report

Dear Mr. Beale:

This memorandum includes the results from the third-party review of the October 2021 Critical Areas Report (the report) created for the Freeman Road Logistics property at 5117 Freeman Road East, Puyallup, WA 98371 (tax parcel numbers 0420174075, 0420201040, 0420201039, 0420201045, 0420201066, 0420201101, 0420205003, 0420205017, 0420201027, 0420201052, 0420201034, 0420201042, 0420205016) by Anchor QEA, LLC (Anchor). Confluence Environmental Company (Confluence) biologists reviewed this report (Anchor 2021) and conducted a site visit to the project property on December 9, 2021. Site photos from this visit are included in Attachment A. The following sections include our findings and recommendations based on the site visit and our review of the 2021 report.

METHODS

In order to verify the report (Anchor 2021), Confluence conducted a wetland reconnaissance and stream ordinary high water mark (OHWM) reconnaissance on the property. This section describes the methods used to identify the presence or absence of wetlands.

Desktop Analysis

Confluence evaluated the parcel for the presence of critical areas by reviewing the following available GIS databases:

- City of Puyallup Critical Areas Map (City of Puyallup 2021),
- Pierce County Public GIS (Pierce County 2021),
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (USFWS 2021),
- Washington Department of Fish and Wildlife (WDFW) SalmonScape (WDFW 2021),
- WDFW Priority Habitats and Species (PHS) on the Web (WDFW 2022),
- National Resource Conservation Service (NRCS) Soil Survey (NRCS 2021a), and
- Washington Department of Natural Resources (WDNR) Water Type GIS (WDNR 2021).

Results of the GIS database searches are in Attachment B.

Wetland Identification

Confluence identified wetland boundaries using the methods described by the U.S. Army Corps of Engineers (Corps) in the Corps of Engineers Wetland Delineation Manual (Corps 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Regional Supplement; Corps 2010). The Corps typically requires that the following 3 characteristics be present for an area to be identified as a wetland: (1) hydrophytic vegetation, (2) hydric soil, and (3) wetland hydrology. Each criterion has several indicators by which it can be determined to satisfy the standard. The indicators were established so that if a wetland were present on-site, sufficient indicators would be observed at any time of the year, including the driest months, to identify a wetland. Since “normal circumstances,” as defined by the Corps (1987), exist on the site, all 3 criteria must be present for an area to be determined a wetland. Wetland delineation data forms completed during the site visit are provided in Attachment C.

In areas with a lack of visual wetland indicators (i.e., in areas with monoculture vegetation and lack of topography), Confluence used soil probes to determine the wetland boundary between test plots. Confluence evaluated the presence or absence of hydric soil and wetland hydrology indicators at soil probe locations to determine if the area represented by the soil probe was wetland or upland. Soil probe locations and presence or absence of hydric soil and wetland hydrology indicators were recorded using GPS.

To assess whether there are possible wetlands on or encroaching from adjacent properties, Confluence modified the methods described by the Corps (Corps 1987, 2010). The modified method identifies the presence or absence of visual wetland indicators. If hydrophytic vegetation was dominant and visual indicators of wetland hydrology were observed, then hydric soils were assumed to be present.

Confluence used the PLANTS Database (NRCS 2021b) to provide consistency in scientific naming and the 2018 National Wetland Plant List (Corps 2018) to determine the wetland indicator status of plants.

Ordinary High Water Mark Identification

The Washington State Code defines the OHWM as “on all lakes, streams, and tidal water is that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department” (RCW 90.58.030).

Washington State Department of Ecology has published a guide (Anderson et al. 2016) to interpret the code and provide guidance for field OHWM determinations. Confluence used this

guidance to determine the presence or absence of an OHWM along the features identified as agricultural ditches in the vicinity of the property.

SITE VISIT RESULTS

During the site visit, Confluence biologists recorded the soil, hydrology, and vegetation condition at 3 formal test plots (TP-1, TP-2, and TP-3) as well as 6 informal soil probes as shown in Figure 1. These sampling locations were based along the vegetated northern and northeastern edges of the project property in areas visually indicative of wetland conditions (i.e., in a topographical low spot, a place with wetland vegetation or standing water, adjacent to a conveyance, etc.). Please see Figure 1 on the following page.

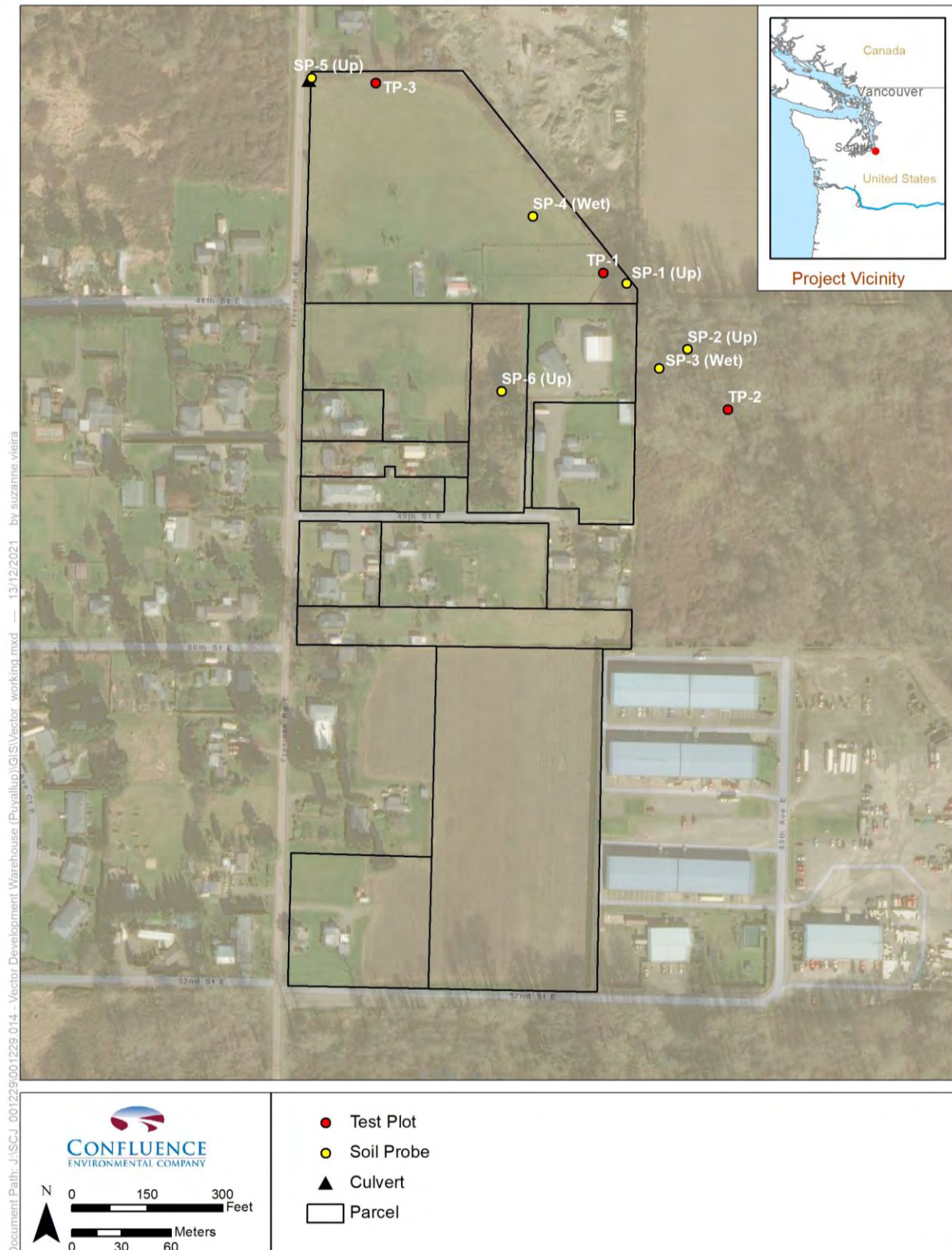


Figure 1. Test Plot and Soil Probe Locations

TP-1 was located near the northeastern extent of the project property at the interface of the mowed agricultural pasture and an undisturbed, forested area. Vegetation in TP-1 was composed dominantly of Oregon ash (*Fraxinus latifolia*), beaked hazelnut (*Corylus cornuta*), Himalayan blackberry (*Rubus armeniacus*), and lawn grasses (*Poa* spp.). This vegetation met the Dominance Test and therefore meets the hydrophytic vegetation criterion. The soils at this location were found to be a dark brown (10YR 3/3) silt clay loam in the top layer (0-10 inches). Soils in the next layer (10-15+ inches) were found to be an olive brown (2.5Y 4/3) clay loam with 5% grayish brown (2.5Y 5/2) redoximorphic depletions in the matrix, 5% dark brown (7.5YR 3/4) pore lining concentrations in the matrix, and 3% yellowish brown (10YR 5/6) concentrations in the matrix. This soil profile does not meet the hydric soil criterion. A single primary indicator—Oxidized Rhizospheres along Living Roots (C3)—was observed. Because 1 primary indicator or 2 secondary indicators are required to meet the wetland hydrology criterion, this criterion was not met. As only 2 of the 3 wetland indicator criteria were met, TP-1 was not representative of a wetland area.

TP-2 was located offsite to the east of the project property in the WSDOT owned-parcel #0420201110 in a low-lying depression with ponded surface water. Dominant vegetation in TP-2 included Oregon ash (*Fraxinus latifolia*), salmonberry (*Rubus spectabilis*), red-osier dogwood (*Cornus sericea*), and English ivy (*Hedera helix*). This vegetation met the Dominance Test and therefore meets the hydrophytic vegetation criterion. The soils at this location were found to be a very dark grayish brown (10YR 3/2) silt clay loam in the top layer (0-9 inches). Soils in the next layer (9-15+ inches) were found to be a dark grayish brown (2.5Y 4/2) clay with 10% dark gray (7.5YR 4/1) redoximorphic depletions in the matrix and with 3% dark yellowish brown (10YR 4/6) redoximorphic concentrations in the matrix. This soil profile meets 1 hydric soil indicator—Depleted Matrix (F3)—and therefore the hydric soil criterion is met. TP-2 met the primary wetland hydrology indicators of High Water Table (A2) and Saturation (A3), as well as the secondary wetland hydrology indicators of Water-Stained Leaves (B9), Geomorphic Position (D2), and FAC Neutral Test (D5). Because 1 primary indicator or 2 secondary indicators are required to meet the wetland hydrology criterion, this criterion was met. Because all 3 of the wetland indicator criteria was met, TP-2 was representative of an offsite wetland area within the WSDOT parcel.

TP-3 was located near the northern extent of the project property at the interface of the mowed agricultural pasture and a shrub-dominated depression. Dominant vegetation at TP-3 included Douglas fir (*Pseudotsuga menziesii*), red-osier dogwood (*Cornus sericea*), Himalayan blackberry (*Rubus armeniacus*), and fescue grasses (*Festuca* spp.). This vegetation met the Dominance Test and therefore meets the hydrophytic vegetation criterion. The soils at this location were found to be a brown (10YR 4/3) silt clay loam in the top layer (0-10 inches). Soils in the next layer (10-14+ inches) were found to be the same brown (10Y 4/3) silt clay loam with 1% dark yellowish brown (10YR 4/4) redoximorphic concentrations in the matrix and 1% gray (10YR 5/1) redoximorphic depletions in the matrix. This soil profile does not meet the hydric soil criterion. A single primary indicator—Oxidized Rhizospheres along Living Roots (C3)—was observed.

Because 1 primary indicator or 2 secondary indicators are required to meet the wetland hydrology criterion, this criterion was met. As only 2 of the 3 wetland indicator criteria was met, TP-3 was not representative of a wetland area.

Of the 6 soil probes, 4 were found to be in upland locations and 2 were found to exhibit wetland conditions as shown in Figure 1. The upland soil probes (SP) include SP-1, SP-2, SP-5, and SP-6. SP-1 was located near Anchor's Determination Plot (DP)-1 to confirm upland conditions. SP-2 was located in the northwestern portion of the WSDOT parcel between the stream/ditch feature and the ponded surface water documented at TP-2. SP-5 was located in the lowest point of the stream/ditch feature along the northern project parcel. SP-6 was located in parcel #0420201040 in an area dominated by red-osier dogwood. The wetland soil probes that exhibited all 3 wetland characteristics, include SP-3 and SP-4. SP-3 was located east of the project property and west of the earthen berm adjacent to the stream/ditch feature (likely side-cast material). SP-4 was located in an area of fill within the mowed agricultural pasture adjacent to DP-3.

Confluence did not dig a test plot or soil probe at the southern portion of the project property since this area is either developed with homes or else in active agriculture, and is approximately 5 feet higher than the field-verified wetland south of 19th Ave NW. No visual wetland characteristics were observed in this area of the project property. Wetland conditions were visibly identified on parcel #0420174032 to the northwest of the project property as well, but Freeman Road E truncates any buffer that might extend onto the project property from the west. The City of Puyallup Critical Areas Map and the Pierce County Public GIS show a field-verified wetland along the southern edge of 19th Ave NW (also called 52nd St E) immediately to the south of the project area (City of Puyallup 2021, Pierce County 2021, Attachment B). We were unable to record a test plot in this wetland, but the observed conditions (i.e., significant inundation, location is a topographic depression, wetland vegetation) were highly indicative of the presence of a wetland. Due to presence of 19th Ave NW, the wetland buffer is truncated at the roadway and does not extend into the project area.

The report identified an off-site agricultural ditch to the north and east of the project property (Anchor 2021). This conveyance feature is located on the adjacent WSDOT-owned parcels 0420178009, 0420201110, and 0420201111 and privately-owned parcel 0420174028 at its closest point. This feature appears to have been constructed at least partially through an area that is a natural wetland, and itself is highly naturalized with a forested canopy and multiple strata of native vegetation. We have reached out to WSDOT to inquire about this feature, and WSDOT has indicated that they are working with WDFW to determine if this feature will be regulated as a stream (Steve Fuchs *per. comm.* 2022). Figure 2 was provided by WSDOT as a preliminary critical area delineation drawing, and we are providing it here for your reference.

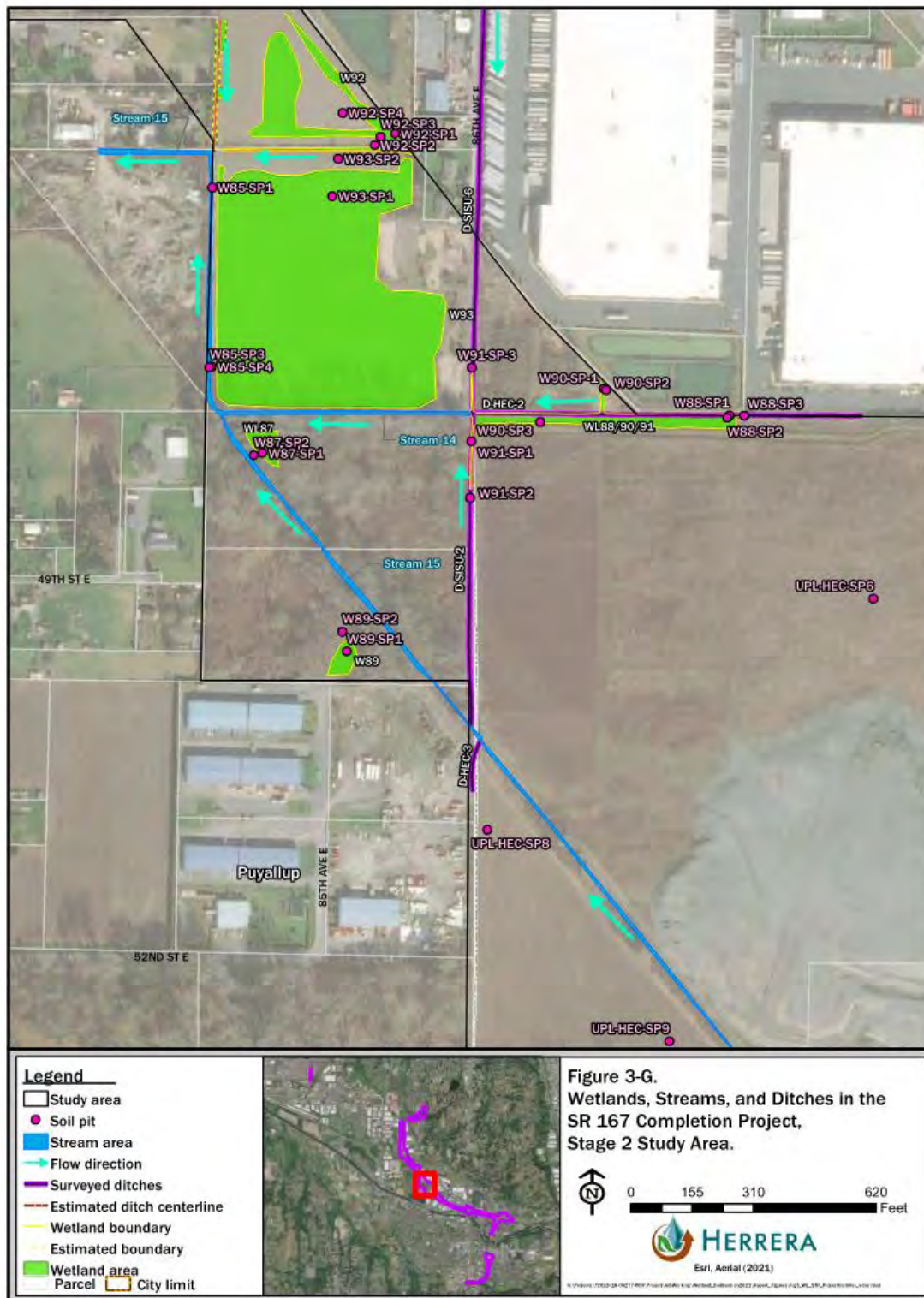


Figure 2. Preliminary WSDOT SR 167 Completion Project Wetland and Stream Assessment (WSDOT 2022)

During the site visit we identified another ditch feature along the northern property boundary. Through the examination of TP-3 and SP-5, we determined that the feature along the northern property boundary is neither a stream nor a wetland, but it is an unregulated agricultural ditch.

Based on our field verification, wetland conditions were identified at TP-2 and SP-3 on the WSDOT parcel #0420201110, as well as SP-4 on the project property. Further investigation and wetland delineation is required to confirm the boundary location, size, and rating of the off-site wetland to determine if the buffer extends onto the project parcel and is impacted by the proposed development. Further explanation is also required to confirm if the area near SP-4 is or is not a wetland.

FINDINGS

The report was reviewed for completeness according to the regulations outlined in Puyallup Municipal Code (PMC) Chapter 21.06.530(1) for Critical Areas Regulations specific to general critical area report requirements. The following discussion includes findings of report completeness.

Per PMC 21.06.530(1)(a), a detailed description of the critical areas and buffers on or adjacent to the project site is required. The report did not identify any critical areas on the adjacent WSDOT property (parcel numbers 0420201110 and 0420201111), beyond stating that *"No wetlands were observed east of the Study Area, but some wetlands could potentially be present farther from the Study Area to the east within the WSDOT right-of-way, but those areas were not assessed as they are presumed to be addressed as part of the WSDOT SR 167 Extension project currently in planning and design stages"* (Anchor 2021). However, wetland conditions were observed on at least 1 of these parcels during the site visit on December 9, 2021 (see the Site Visit Results section). Additionally, per Figure 2 and as described in the previous section, the offsite water feature is being considered a stream by WSDOT (2022) and pending confirmation by WDFW.

Please identify and describe critical areas and buffers adjacent to the project property, including a delineation of the portion of the wetland within 300-feet of the project property, and rate the wetland per the most current Washington Department of Ecology Wetland Rating System for Western Washington [per PMC21.06.910(3)] to ensure that the proposed project will not impact the wetland buffer if it extends onto the site. Because information about wetlands and streams adjacent to the project site will be documented through WSDOT, the applicant should request this information and the report should be updated accordingly. Additionally, wetland conditions were visually identified to the northwest of the project property on the western edge of Freeman Road E. Although the wetland buffer would be truncated at the roadway, briefly describe the wetland on the west side of Freeman Road E to meet the requirements of PMC 21.06.530(1)(a).

Wetland conditions were also identified on site at SP-4. Provide additional information and rationale to confirm that this area is or is not a wetland.

Pursuant to PMC 21.06.530(1)(b) please update the development proposal site plan to show the proposed development footprint and clearing limits, and all critical areas and buffer including buffers from adjacent parcel once the offsite wetland conditions and buffers are identified and described.

Per PMC 21.06.530(1)(c) provide a description of the proposed storm water management plan for the development and consideration of impacts to drainage alterations is required. Note that a plan for compensatory storage of flood waters and impacts to downstream waterbodies must also be addressed, as outlined in the following section.

Pursuant to PMC 21.06.530(1)(d) please include the dates, names, and qualifications of the persons preparing the report and documentation of any fieldwork performed on the site. Additionally, include any field data collected outside of the 3 DPs (i.e., any soil probe or observations recorded in field notes from elsewhere on the site).

Per PMC 21.06.530(1)(e) a detailed assessment of the potential impacts to critical areas and buffers resulting from site development is required. Include assessment for any critical areas on the adjacent WSDOT parcels. If buffers from the adjacent WSDOT parcels could be impacted, provide an analysis of site development alternatives or avoidance and minimization measures per PMC 21.06.530(1)(f).

The report states that *“Potential wetland features were evaluated based on PMC wetland delineation criteria”* (Anchor 2021). Per PMC 21.06.910, wetlands shall be delineated according to the technical wetland delineation manuals as required by the Revised Code of Washington 36.70A.175 and in accordance with the current manuals and regional supplements required by the Department of Ecology and the Army Corps of Engineers. To ensure that the methods used in creating the report follow the most current guidance documents, update the report to specifically cite the Ecology, Army Corps of Engineers, or other manuals and regional supplements used during the wetland determination process.

For clarity, elaborate on what was meant by the statement that the agricultural ditch is “hydraulically controlled”, as stated on Page 4 of the report (Anchor 2021).

ADDITIONAL INFORMATION REQUESTS

New information recently provided by Vector Development Company shows the project will also propose a waterline in a new 40-foot wide waterline easement just off the project site to the southeast. From preliminary maps provided to the City of Puyallup, it appears that this waterline would extend along the southern edge of 19th Ave NW. As shown in the City of Puyallup Critical Areas Map and as noted in the report, a large field-verified wetland is present on the parcels south of 19th Ave NW (City of Puyallup 2021, Anchor 2021). This wetland has been identified as a priority aquatic habitat by WDFW (WDFW 2022). For any project development that is proposed to occur within the roadway of 19th Ave NW or south of this

roadway within tax parcels 0420201114 or 0420201008, update the report to include a delineation of the offsite wetland; a determination of the buffer width; and an analysis of buffer impacts proposed by the project according to the proposed alignment. In addition to assessing wetland and wetland buffer impacts, update the report to include an assessment of the wildlife and wildlife habitat—including WDFW Priority Habitats and Species—for the entire priority aquatic habitat unit, as well as an assessment of proposed impacts to those wildlife and habitats.

Historical data and site observations show flooding conditions on site. Since this meets the definition of *flood prone areas* and *reasonably safe from flooding* under PMC 21.07.030 the property is subject to the regulations of PMC Chapter 21.07. Please provide a separate floodplain/flood prone area habitat assessment that specifically identifies and discusses potential impacts to floodplain function on the site as well as impacts to Endangered Species Act-listed species in downstream, receiving water bodies that would result from the proposed changes to the flood prone area, as required under PMC 21.07.050(1)(c). This document should additionally include a discussion of the plan for compensatory storage of flood waters.

Please update the report to address all review comments and submit a flood prone area habitat assessment.

Respectfully yours,



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Attachment A: Site Photos

Attachment B: Desktop Analysis

Attachment C: Wetland Determination Data Forms

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Attachment A

Site Photos

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Photo 1—Soil profile at Test Plot (TP)-1.



Photo 2—View from TP-1, looking north.



Photo 3—View from TP-1, looking east.



Photo 4—View from TP-1, looking south.



Photo 5—View from TP-1, looking west.



Photo 6—Soil profile at TP-2.



Photo 7—View from TP-2, looking east.



Photo 8—View from TP-2, looking south.



Photo 9—View from TP-2, looking west



Photo 10—View from TP-2, looking north.



Photo 11—Soil profile at TP-3.



Photo 12—View from TP-3, looking north.



Photo 13—View from TP-3, looking east.



Photo 14—View from TP-3, looking south.



Photo 15—View from TP-3, looking west.



Photo 16—Location of SP-1 (near vested biologist) and off-site flooded agricultural field.



Photo 17—View from SP-2 to south with ponded area to east (left) and ditch to west (right).



Photo 18—Soil profile at SP-3.



Photo 19—View of area adjacent to SP-4 with surface ponding on area of possible fill.



Photo 20—Vegetation and conditions looking north from SP-5.



Photo 21—Vegetation and conditions looking north from SP-6.



Photo 22—View looking southeast along the WSDOT unmaintained, naturalized ditch.



Photo 23—The active agricultural field north of 19th Ave NW (observed remnants of recent harvest).



Photo 24—19th Ave NW and adjacent grassy shoulder (right, north) and verified wetland (left, south).



Photo 25—Puyallup field-verified wetland south of the project property and 19th Ave NW.



Photo 26—Wetland vegetation observed west of Freeman Road East.

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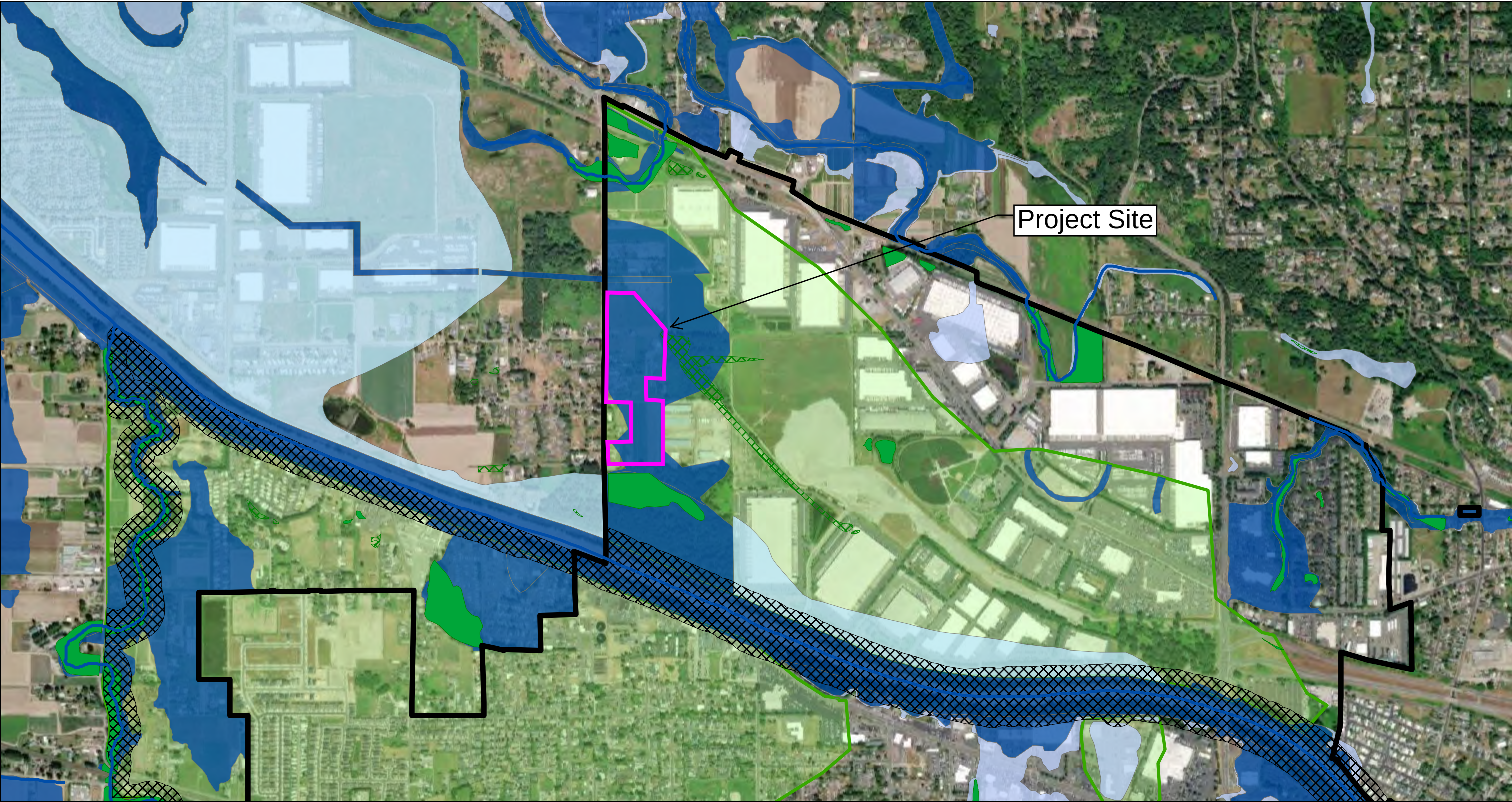


Attachment B

Desktop Analysis

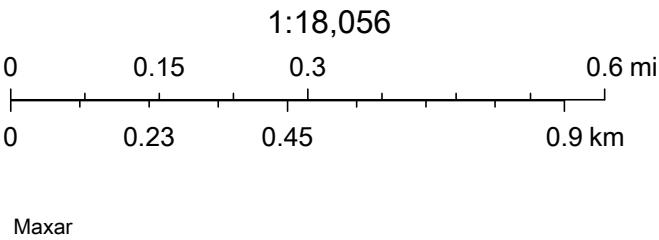
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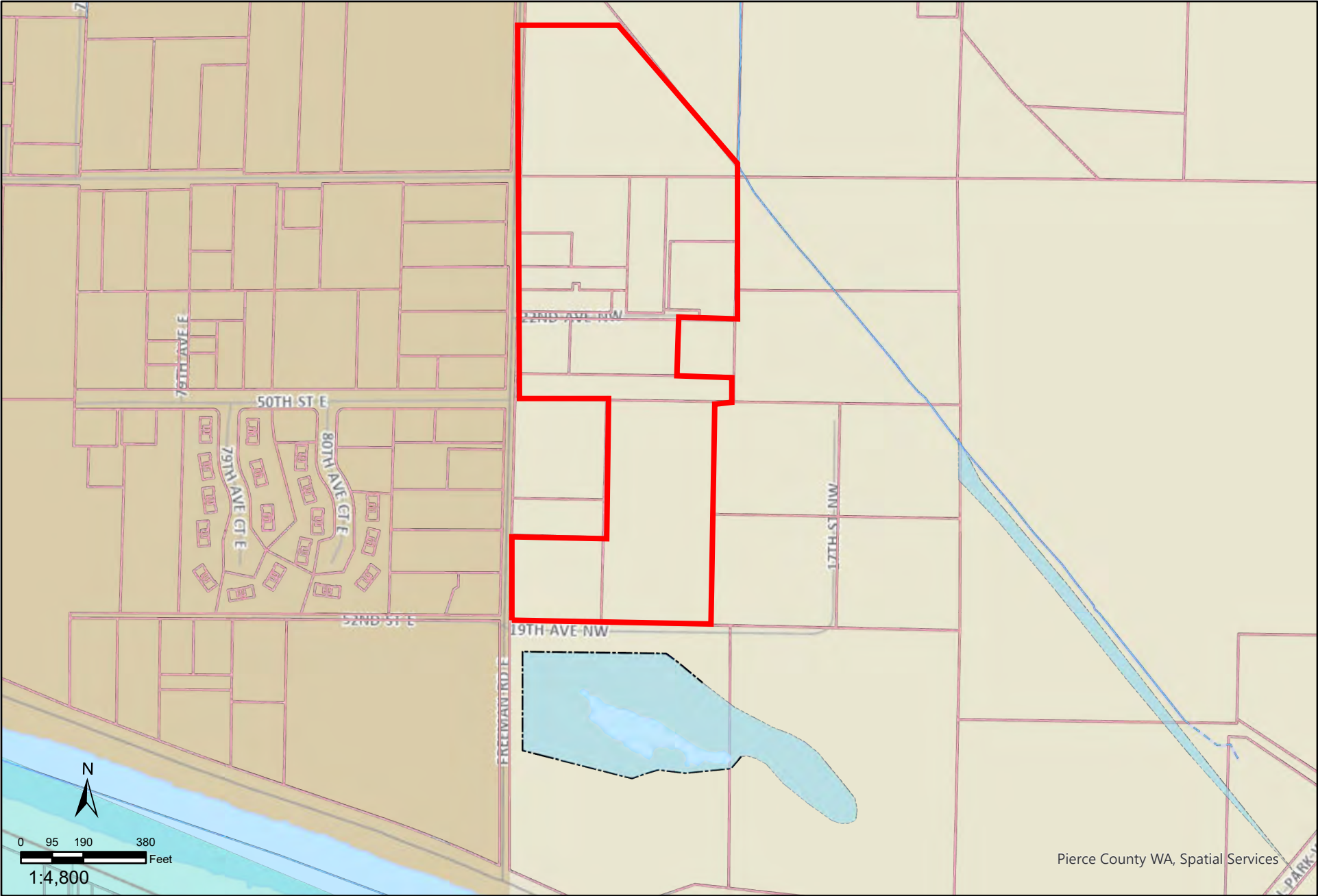
ArcGIS Web Map



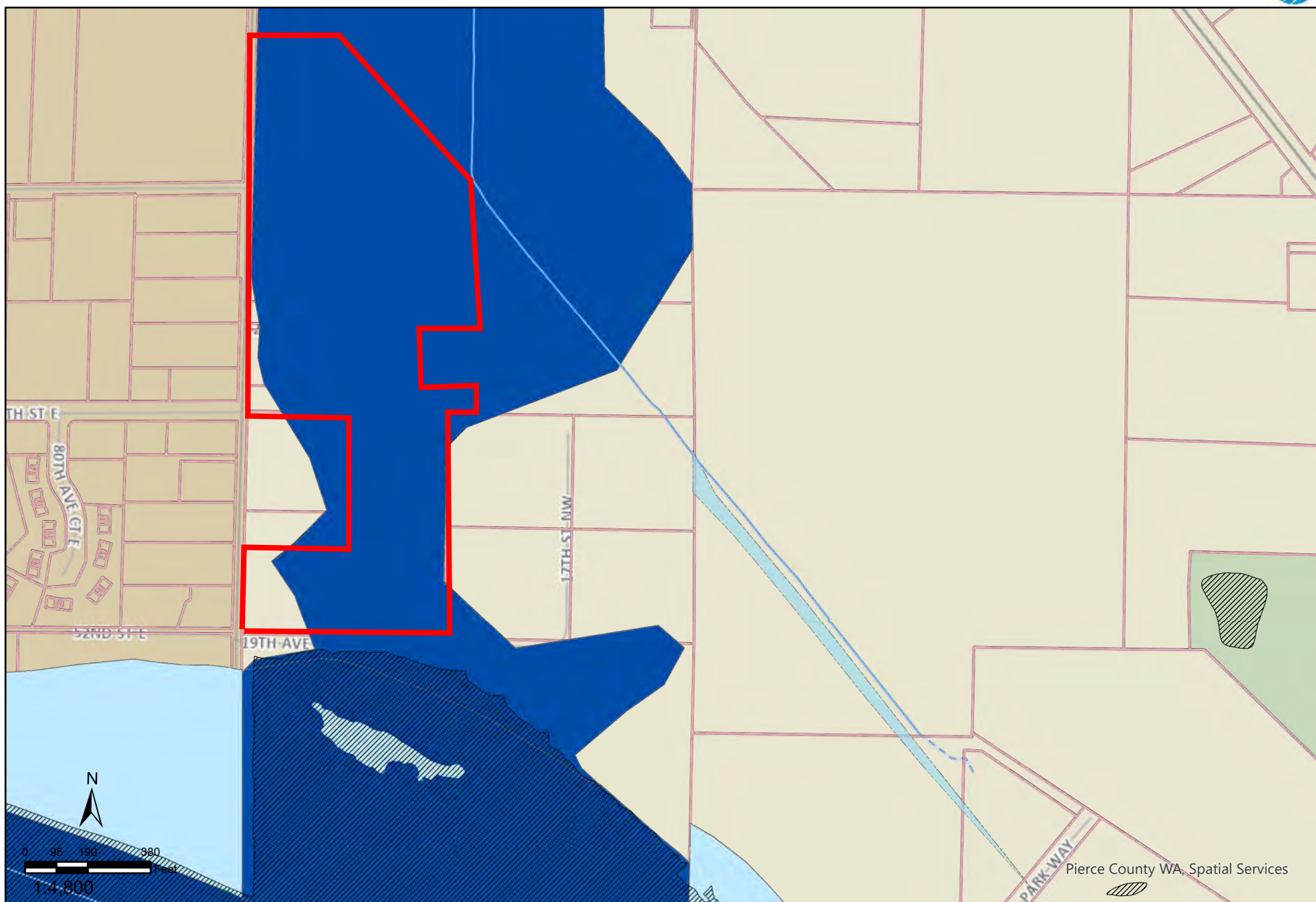
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- | | | | |
|---------------|----------------|---------------------------|---------------------------|
| Streams | Wetlands | Regulated Floodplain 2017 | 0.2% Annual Chance Flood |
| Shoreline MPE | Field-verified | 1% Annual Chance Flood | Zone X (SHADED) |
| City Limits | Unverified | 1% Annual Chance Flood | X BEHIND LEVEE |
| | | 1% Annual Chance Flood | Floodplain Seclusion Area |





Disclaimer: The map features are approximate and have not been surveyed. Additional features not yet mapped may be present.
Pierce County assumes no liability for variations ascertained by formal survey.



*Disclaimer: The map features are approximate and have not been surveyed. Additional features not yet mapped may be present.
Pierce County assumes no liability for variations ascertained by formal survey.*

Pierce County WA, Spatial Services

Date: 12/7/2021 10:07 PM



U.S. Fish and Wildlife Service

National Wetlands Inventory

Vector Dev USFWS



December 8, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

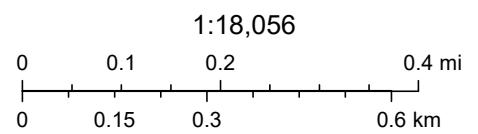
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Vector



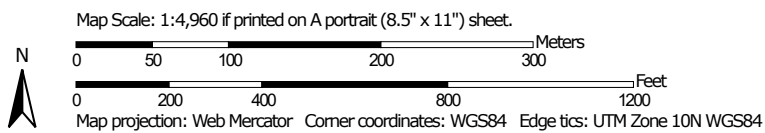
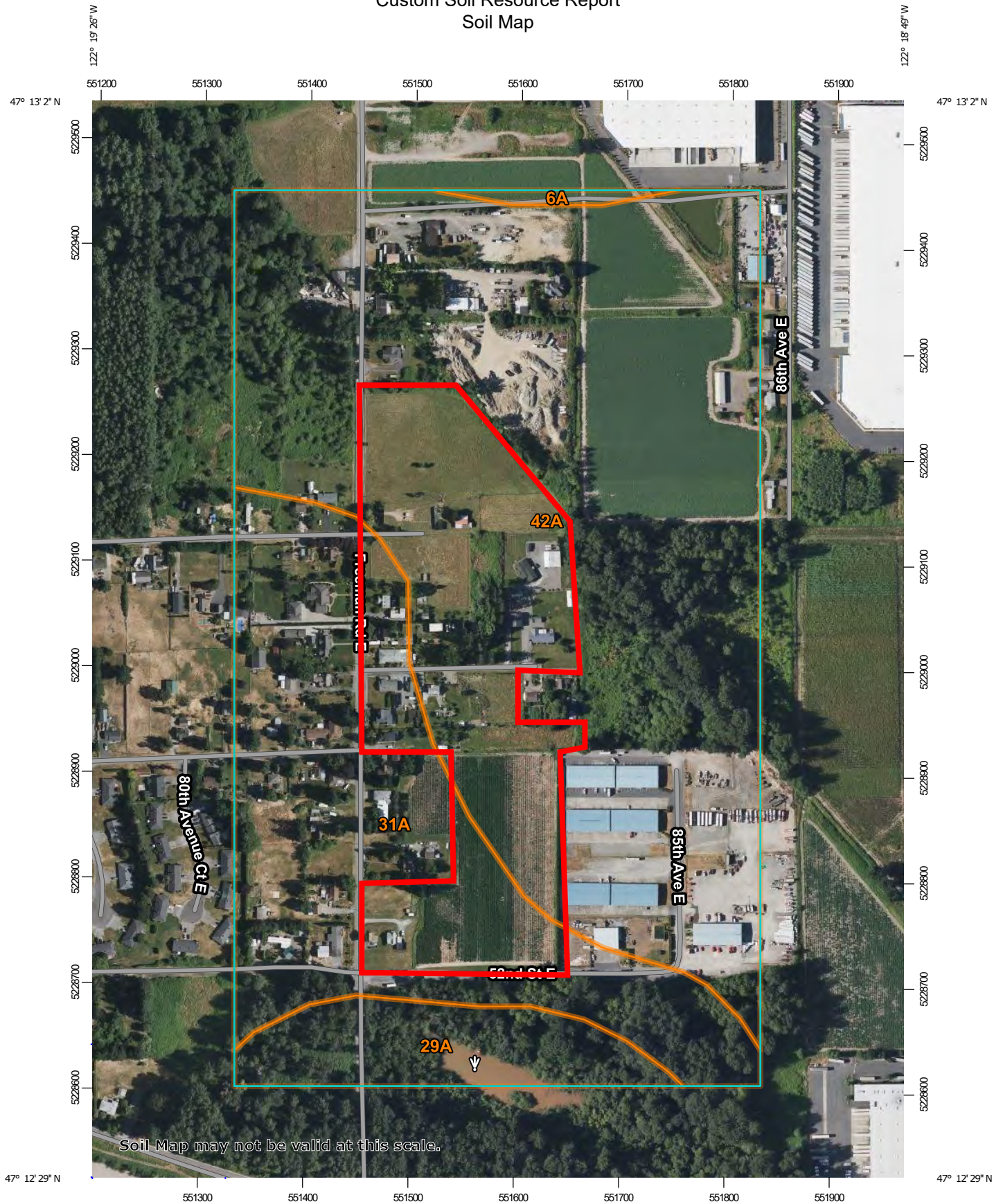
December 7, 2021

— All SalmonScape Species



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, WDFW

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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

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

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

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 17, Aug 31, 2021

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

Date(s) aerial images were photographed: Jul 18, 2020—Aug 2, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6A	Briscot loam	0.6	0.5%
29A	Pilchuck fine sand	6.9	6.5%
31A	Puyallup fine sandy loam	29.3	27.8%
42A	Sultan silt loam	68.4	65.1%
Totals for Area of Interest		105.1	100.0%

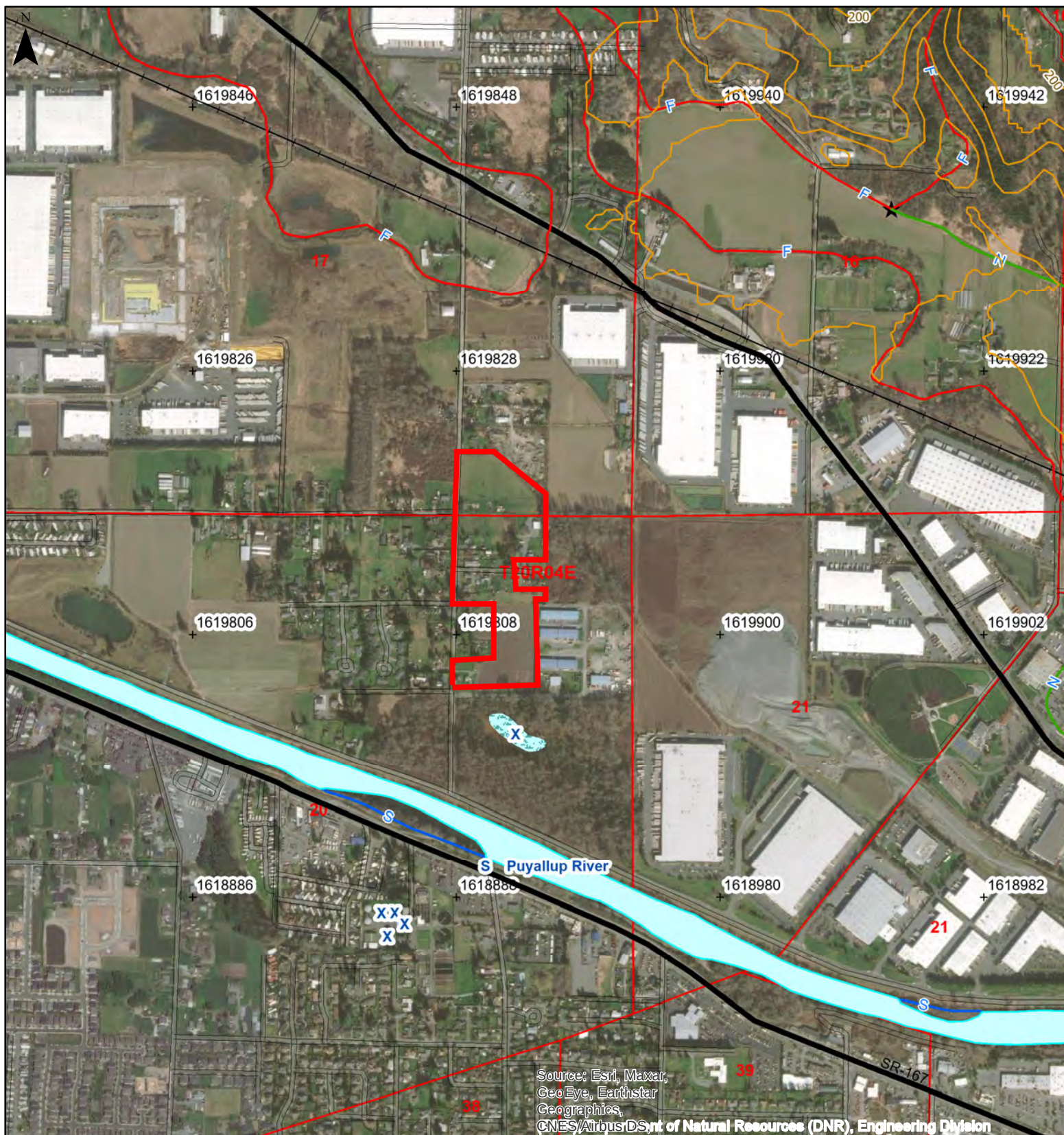
Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

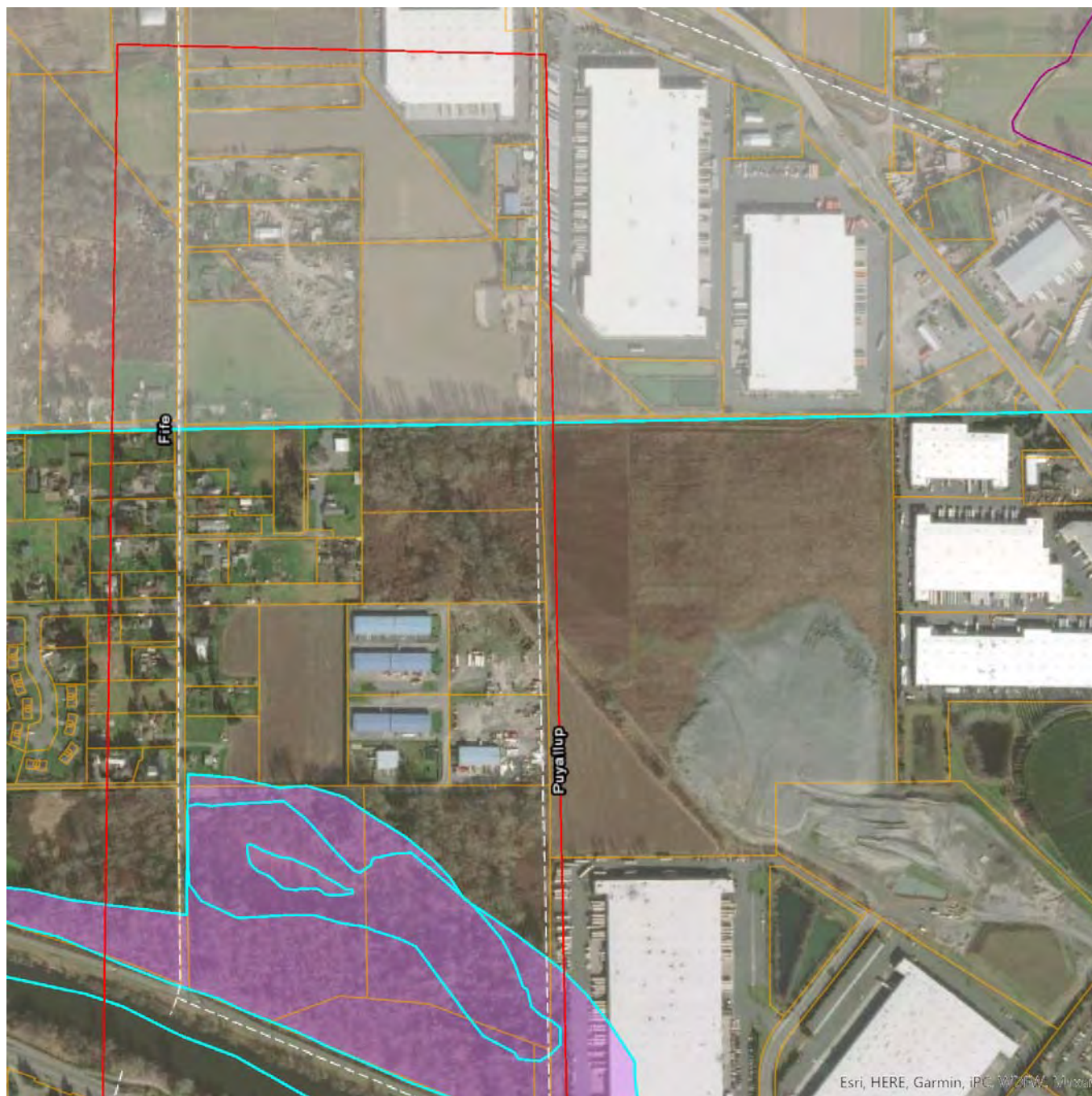
The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The



Map Symbols --- Harvest Boundary 🌐 Landing - - - Road Construction ▽ Waste Area ~ Stream ▨ RMZ / WMZ Buffers 🌲 Clumped WRTS/GRTS ✂ Rock Pit 🏠 Existing Structure	Additional Information	Legal Description S17 T20.0N R04.0E, S39 T20.0N R04.0E S16 T20.0N R04.0E, S38 T20.0N R04.0E S16 T20.0N R04.0E, S21 T20.0N R04.0E S20 T20.0N R04.0E, S21 T20.0N R04.0E S47 T20.0N R04.0E
 WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES	Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.	0 0.25  Miles Date: 12/7/2021 Time: 10:01:01 PM



Priority Habitats and Species on the Web



Report Date: 01/31/2022

PHS Species/Habitats Overview:

Occurrence Name	Federal Status	State Status	Sensitive Location
Chum	Not Warranted	N/A	No
Bull Trout	Threatened	N/A	No
Steelhead	Threatened	N/A	No
Winter Steelhead	N/A	N/A	No
Fall Chinook	N/A	N/A	No
Coho	Candidate	N/A	No
Cutthroat	Not Warranted	N/A	No
Resident Coastal Cutthroat	N/A	N/A	No
Sockeye	N/A	N/A	No
Dolly Varden/ Bull Trout	N/A	N/A	No
Chinook	Threatened	N/A	No
Pink	Not Warranted	N/A	No
Coho	N/A	N/A	No
Spring Chinook	N/A	N/A	No
Pink Salmon Odd Year	N/A	N/A	No
Fall Chum	N/A	N/A	No
Wetlands	N/A	N/A	No
Waterfowl Concentrations	N/A	N/A	No
Freshwater Forested/Shrub Wetland	N/A	N/A	No
Western Pond Turtle	N/A	Endangered	Yes

PHS Species/Habitats Details:

Chum	
Scientific Name	<i>Oncorhynchus keta</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Fennel Creek Fall Chum, Run: Fall, Status: Healthy
Source Record	2176
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Not Warranted
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Bull Trout	
Scientific Name	<i>Salvelinus malma/S. confluentus</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: White River (Puyallup) Bull Trout, Run: Unspecified, Status: Unknown
Source Record	8156
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Steelhead	
Scientific Name	<i>Oncorhynchus mykiss</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Mainstem Puyallup Winter Steelhead, Run: Winter, Status: Depressed
Source Record	6182
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Winter Steelhead	
Scientific Name	<i>Oncorhynchus mykiss</i>
Priority Area	Occurrence/Migration
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Steelhead Trout, Run Time: Winter, Life History: Anadromous
Source Record	44416
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Fall Chinook	
Scientific Name	<i>Oncorhynchus tshawytscha</i>
Priority Area	Breeding Area
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Chinook Salmon, Run Time: Fall, Life History: Anadromous
Source Record	44395
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Coho	
Scientific Name	<i>Oncorhynchus kisutch</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Puyallup Coho, Run: Unspecified, Status: Healthy
Source Record	3160
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Candidate
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Coho	
Scientific Name	<i>Oncorhynchus kisutch</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: White River (Puyallup) Coho, Run: Unspecified, Status: Healthy
Source Record	3170
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Candidate
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Cutthroat	
Scientific Name	<i>Oncorhynchus clarki</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Puyallup Coastal Cutthroat, Run: Unspecified, Status: Unknown
Source Record	7400
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Not Warranted
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Resident Coastal Cutthroat	
Scientific Name	<i>Oncorhynchus clarki</i>
Priority Area	Occurrence/Migration
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Cutthroat Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	44393
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Chum	
Scientific Name	<i>Oncorhynchus keta</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Puyallup/Carbon Fall Chum, Run: Fall, Status: Healthy
Source Record	2187
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Not Warranted
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Sockeye	
Scientific Name	<i>Oncorhynchus nerka</i>
Priority Area	Occurrence/Migration
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Sockeye Salmon, Run Time: Unknown or not Applicable, Life History: Anadromous
Source Record	44415
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Steelhead	
Scientific Name	<i>Oncorhynchus mykiss</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: White River (Puyallup) Winter Steelhead, Run: Winter, Status: Depressed
Source Record	6189
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Dolly Varden/ Bull Trout	
Scientific Name	<i>Salvelinus malma/S. confluentus</i>
Priority Area	Occurrence/Migration
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Bull Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	44408
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Bull Trout	
Scientific Name	<i>Salvelinus malma/S. confluentus</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Carbon Bull Trout/Dolly Varden, Run: Unspecified, Status: Unknown
Source Record	8168
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Chinook	
Scientific Name	<i>Oncorhynchus tshawytscha</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Puyallup Chinook, Run: Fall, Status: Unknown
Source Record	1176
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Pink	
Scientific Name	<i>Oncorhynchus gorbuscha</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Puyallup Pink, Run: Odd-Year, Status: Depressed
Source Record	4520
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Not Warranted
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Chinook	
Scientific Name	<i>Oncorhynchus tshawytscha</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: White River Chinook, Run: Spring, Status: Critical
Source Record	1184
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Coho	
Scientific Name	<i>Oncorhynchus kisutch</i>
Priority Area	Breeding Area
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Coho Salmon, Run Time: Unknown or not Applicable, Life History: Anadromous
Source Record	44405
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Spring Chinook	
Scientific Name	<i>Oncorhynchus tshawytscha</i>
Priority Area	Breeding Area
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Chinook Salmon, Run Time: Spring, Life History: Anadromous
Source Record	44402
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Steelhead	
Scientific Name	<i>Oncorhynchus mykiss</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Carbon Winter Steelhead, Run: Winter, Status: Depressed
Source Record	6196
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Pink Salmon Odd Year	
Scientific Name	<i>Oncorhynchus gorbuscha</i>
Priority Area	Occurrence/Migration
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Pink Salmon, Run Time: Odd Year, Life History: Anadromous
Source Record	44409
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Bull Trout	
Scientific Name	<i>Salvelinus malma</i> /S. <i>confluentus</i>
Priority Area	Occurrence
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Stock Name: Puyallup Bull Trout/Dolly Varden, Run: Unspecified, Status: Unknown
Source Record	8144
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Threatened
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Fall Chum	
Scientific Name	<i>Oncorhynchus keta</i>
Priority Area	Occurrence/Migration
Site Name	Puyallup River
Accuracy	NA
Notes	LLID: 1224252472685, Fish Name: Chum Salmon, Run Time: Fall, Life History: Anadromous
Source Record	44398
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

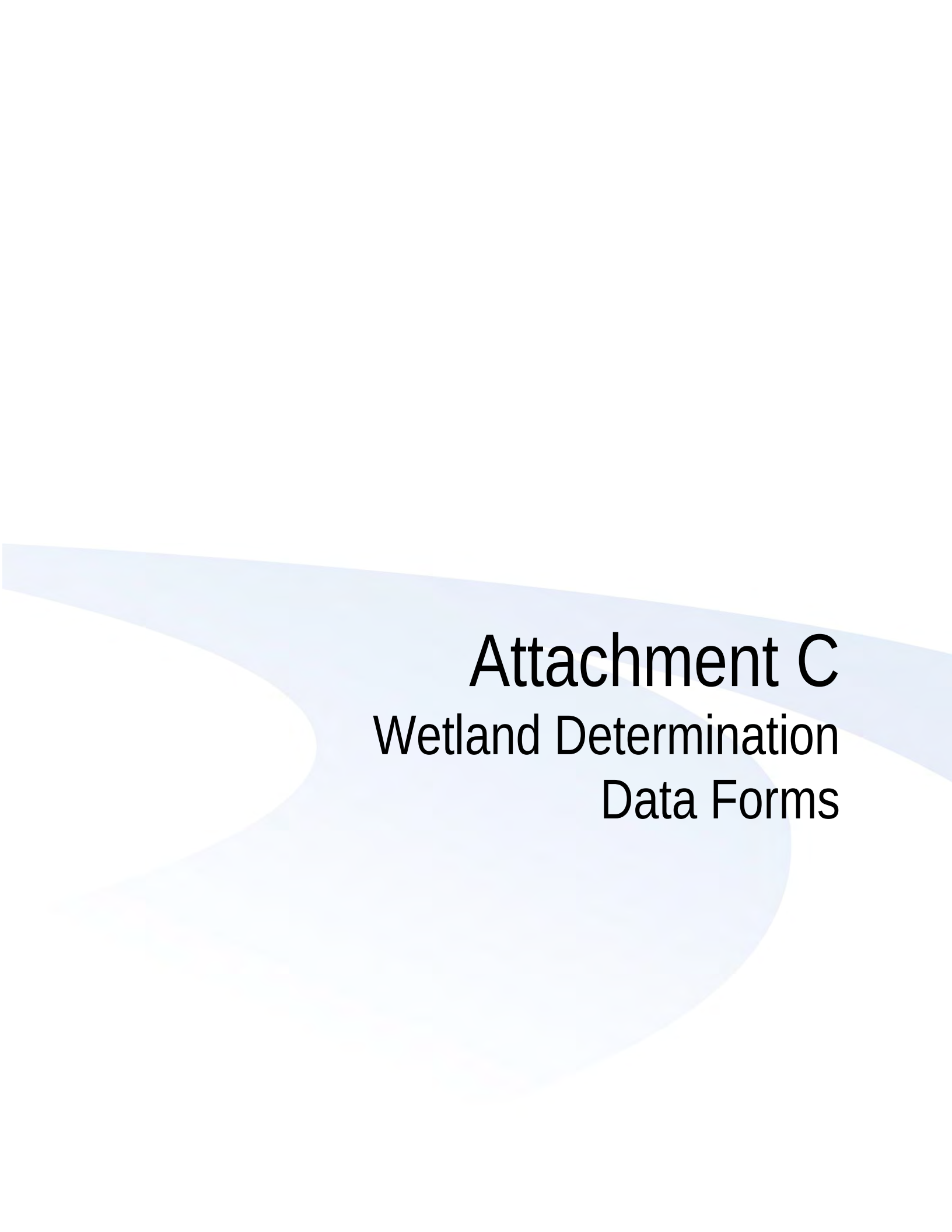
Wetlands	
Priority Area	Aquatic Habitat
Site Name	LOWER PUYALLUP RIVER VALLEY WETLANDS
Accuracy	1/4 mile (Quarter Section)
Notes	LOWER PUYALLUP RIVER VALLEY WETLANDS
Source Record	902559
Source Dataset	PHSREGION
Source Name	NAUER, DON WDW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Waterfowl Concentrations	
Priority Area	Regular Concentration
Site Name	PIERCE COUNTY - NON FARM
Accuracy	1/4 mile (Quarter Section)
Notes	SMALL WATERFOWL CONCENTRATION AREAS, NON AGRICULTURAL.
Source Record	902564
Source Dataset	PHSREGION
Source Name	NAUER, DON WDW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00026
Geometry Type	Polygons

Freshwater Forested/Shrub Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Forested/Shrub Wetland - NWI Code: PFO1C
Source Dataset	NWIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Western Pond Turtle	
Scientific Name	<i>Actinemys marmorata</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release (360-902-2543) for obtaining information about masked sensitive species and habitats.
Federal Status	N/A
State Status	Endangered
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	QTR-TWP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00025

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



Attachment C

Wetland Determination Data Forms

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for double-sided printing

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

Project/Site: Freeman Logistics Warehouse City/County: Puyallup/Pierce Sampling Date: 12/09/2021
 Applicant/Owner: Vector Development Company State: WA Sampling Point: TP-1
 Investigator(s): IKS, SRV Section, Township, Range: S15 T20N R4E
 Landform (hillslope, terrace, etc.): Terrace/floodplain Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR): A Lat: 47.213816 Long: -122.318032 Datum: WSG84
 Soil Map Unit Name: Sultan Silt Loam 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 _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: <u>Test plot was dug in a mowed pasture.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>10</u>	<u>X</u>	<u>FACW</u>	
2. <u>Corylus cornuta</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
<u>25</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10'</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>Rubus armeniacus</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	OBL species _____ x 1 = _____
2. <u>Symphoricarpos albus</u>	<u>Trace</u>	_____	<u>FACU</u>	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
<u>10</u> = Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>10'</u>)				Prevalence Index = B/A = _____
1. <u>Ranunculus repens</u>	<u>15</u>	_____	<u>FAC</u>	Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Agrostis spp.</u>	<u>20</u>	_____	<u>FAC</u>	
3. <u>Festuca spp.</u>	<u>10</u>	_____	<u>FAC</u>	
4. <u>Poa spp.</u>	<u>60</u>	<u>X</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>105</u> = Total Cover				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

SOIL

Sampling Point: TP-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 3/3	100					Silt Clay Loam	
10-15+	2.5Y 4/3	87	2.5Y 5/2	5	D	M	"	
	"		10YR 5/6	3	C	M	"	
	"		7.5YR 3/4	5	C	PL	"	

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

²Location: PL=Pore Lining, M=Matrix.

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (except MLRA 1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Matrix (F3) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Dark Surface (F6) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Depleted Dark Surface (F7) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Matrix color too bright to be considered depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- | | |
|--|--|
| ☐ Surface Water (A1) | ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| ☐ High Water Table (A2) | ☐ Salt Crust (B11) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) | ☒ Oxidized Rhizospheres along Living Roots (C3) |
| ☐ Drift Deposits (B3) | ☐ Presence of Reduced Iron (C4) |
| ☐ Algal Mat or Crust (B4) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Iron Deposits (B5) | ☐ Stunted or Stressed Plants (D1) (LRR A) |
| ☐ Surface Soil Cracks (B6) | ☐ Other (Explain in Remarks) |
| ☐ Inundation Visible on Aerial Imagery (B7) | |
| ☐ Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|---|
| ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| ☐ Drainage Patterns (B10) |
| ☐ Dry-Season Water Table (C2) |
| ☐ Saturation Visible on Aerial Imagery (C9) |
| ☐ Geomorphic Position (D2) |
| ☐ Shallow Aquitard (D3) |
| ☐ FAC-Neutral Test (D5) |
| ☐ Raised Ant Mounds (D6) (LRR A) |
| ☐ Frost-Heave Hummocks (D7) |

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): 15"
Saturation Present? Yes _____ No X Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Water table present but not within 12" of soil surface.

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

Project/Site: Freeman Logistics Warehouse City/County: Puyallup/Pierce Sampling Date: 12/09/2021
 Applicant/Owner: Vector Development Company State: WA Sampling Point: TP-2
 Investigator(s): IKS, SRV Section, Township, Range: S15 T20N R4E
 Landform (hillslope, terrace, etc.): Terrace/floodplain Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR): A Lat: 47.213220 Long: -122.316864 Datum: WSG84
 Soil Map Unit Name: Sultan Silt Loam 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 _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>75</u>	<u>X</u>	<u>FACW</u>	
2. <u>Alnus rubra</u>	<u>5</u>		<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
4. _____				Prevalence Index worksheet:
	<u>80</u>		= Total Cover	
Sapling/Shrub Stratum (Plot size: <u>10'</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>Rubus spectabilis</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	OBL species _____ x 1 = _____
2. <u>Cornus sericea</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
	<u>35</u>		= Total Cover	Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>10'</u>)				Prevalence Index = B/A = _____
1. <u>Hedera helix</u>	<u>60</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____				
2. _____				
% Bare Ground in Herb Stratum _____				
Remarks:				

SOIL

Sampling Point: TP-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 3/2	100					Silt Clay Loam	
9-15+	2.5Y 4/2	87	7.5YR 4/1	10	D	M	Clay	
	"		10YR 4/6	3	C	M	Clay	

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

²Location: PL=Pore Lining, M=Matrix.

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

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (except MLRA 1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Depleted Below Dark Surface (A11) | ☒ Depleted Matrix (F3) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Dark Surface (F6) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Depleted Dark Surface (F7) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Matrix color too bright to be considered depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- | | |
|--|---|
| ☐ Surface Water (A1) | ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| ☒ High Water Table (A2) | ☐ Salt Crust (B11) |
| ☒ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) | ☐ Oxidized Rhizospheres along Living Roots (C3) |
| ☐ Drift Deposits (B3) | ☐ Presence of Reduced Iron (C4) |
| ☐ Algal Mat or Crust (B4) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Iron Deposits (B5) | ☐ Stunted or Stressed Plants (D1) (LRR A) |
| ☐ Surface Soil Cracks (B6) | ☐ Other (Explain in Remarks) |
| ☐ Inundation Visible on Aerial Imagery (B7) | |
| ☐ Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|---|
| ☒ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| ☐ Drainage Patterns (B10) |
| ☐ Dry-Season Water Table (C2) |
| ☐ Saturation Visible on Aerial Imagery (C9) |
| ☒ Geomorphic Position (D2) |
| ☐ Shallow Aquitard (D3) |
| ☒ FAC-Neutral Test (D5) |
| ☐ Raised Ant Mounds (D6) (LRR A) |
| ☐ Frost-Heave Hummocks (D7) |

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): Adjacent to TP
Water Table Present? Yes ☒ No ☐ Depth (inches): 0"
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:

Observe 1/4th in of ponded surface water within 2 feet of the test plot.

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

Project/Site: Freeman Logistics Warehouse City/County: Puyallup/Pierce Sampling Date: 12/09/2021
 Applicant/Owner: Vector Development Company State: WA Sampling Point: TP-3
 Investigator(s): IKS, SRV Section, Township, Range: S15 T20N R4E
 Landform (hillslope, terrace, etc.): Terrace/floodplain Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR): A Lat: 47.214803 Long: -122.320107 Datum: WSG84
 Soil Map Unit Name: Sultan Silt Loam 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 _____	Hydric Soil Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Wetland Hydrology Present? Yes <u>X</u> No _____		
Remarks: <u>Test plot was dug in a mowed pasture.</u>		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pseudotsuga menziesii</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
<u>10</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10'</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>Cornus sericea</u>	<u>30</u>	<u>X</u>	<u>FACW</u>	OBL species _____ x 1 = _____
2. <u>Rubus armeniacus</u>	<u>40</u>	<u>X</u>	<u>FAC</u>	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
<u>70</u> = Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>10'</u>)				Prevalence Index = B/A = _____
1. <u>Ranunculus repens</u>	<u>15</u>	_____	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Agrostis spp.</u>	<u>Trace</u>	_____	<u>FAC</u>	
3. <u>Festuca spp.</u>	<u>40</u>	<u>X</u>	<u>FAC</u>	
4. <u>Poa spp.</u>	<u>20</u>	_____	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>75</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

SOIL

Sampling Point: TP-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 4/3	100					Silt Clay Loam	
10-14+	10YR 4/3	98	10YR 4/4	1	C	M	"	
	"		10YR 5/1	1	D	M	"	

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

²Location: PL=Pore Lining, M=Matrix.

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (except MLRA 1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Matrix (F3) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Dark Surface (F6) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Depleted Dark Surface (F7) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Matrix color too bright to be considered depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- | | |
|--|--|
| ☐ Surface Water (A1) | ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| ☐ High Water Table (A2) | ☐ Salt Crust (B11) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) | ☒ Oxidized Rhizospheres along Living Roots (C3) |
| ☐ Drift Deposits (B3) | ☐ Presence of Reduced Iron (C4) |
| ☐ Algal Mat or Crust (B4) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Iron Deposits (B5) | ☐ Stunted or Stressed Plants (D1) (LRR A) |
| ☐ Surface Soil Cracks (B6) | ☐ Other (Explain in Remarks) |
| ☐ Inundation Visible on Aerial Imagery (B7) | |
| ☐ Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|---|
| ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| ☐ Drainage Patterns (B10) |
| ☐ Dry-Season Water Table (C2) |
| ☐ Saturation Visible on Aerial Imagery (C9) |
| ☐ Geomorphic Position (D2) |
| ☐ Shallow Aquitard (D3) |
| ☐ FAC-Neutral Test (D5) |
| ☐ Raised Ant Mounds (D6) (LRR A) |
| ☐ Frost-Heave Hummocks (D7) |

Field Observations:

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

Water Table Present? Yes X No _____ Depth (inches): 12"

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

Wetland Hydrology Present? Yes X No _____

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

Remarks: