WETLAND DELINEATION AND STREAM ASSESSMENT: ADDENDUM TO CRITICAL AREAS REPORT

Nisqually State Park PIERCE COUNTY, WASHINGTON

Final July 20, 2025



Prepared for: WA State Parks



44501 Medical Springs Rd East Eatonville, WA 98328, United States

Prepared by:

EcoAssets Environmental, LLC 6525 Arnesen Lane SW Olympia, WA 98512 www.ecoassets.us



TABLE OF CONTENTS

INTRODUCTION	3
1.1 PROJECT LOCATION	
2 METHODS	5
2.1 LITERATURE AND PUBLICLY AVAILABLE DATA REVIEW	
2.2 WETLAND DELINEATION	
2.2.1 Vegetation	
2.2.2 Soils	
2.2.3 Hydrology	7
2.3 WETLAND CLASSIFICATION RATING	7
2.3.1 COWARDIN CLASSIFICATION	7
2.3.2 Hydroperiod	7
2.3.3 CONTRIBUTING BASIN	8
2.3.4 Sources of Pollutants and Runoff	8
2.3.5 Land Use Intensity and Habitat	8
2.3.6 Water Quality	
2.3.7 PLANT COVER	8
3 RESULTS AND DISCUSSION	9
3.1 DESCRIPTION OF THE STUDY AREA	
3.1.1 LANDSCAPE CHARACTERISTICS	
3.1.2 VEGETATION	9
3.1.4 Soils	11
3.1.5 Hydrology	
3.2 WETLANDS DELINEATED IN STUDY AREA	12
3.2.1 Vegetation Highlights	
4 LIMITATIONS	15
5 REFERENCES	15
6 APPENDICES	16

LIST OF APPENDICES

Wetland Determination Data Forms

Western Washington Rating Forms

Wetland Rating Supporting Maps

Site Photographs

Auxiliary Supporting Documentation

INTRODUCTION

EcoAssets Environmental, LLC was retained by Bob Droll Landscape Architects, under contract with Washington State Parks, to complete wetland delineation and rating assessments for Nisqually State Park (NSP). The objective of this project is to conduct a delineation and assessment of wetlands to document existing conditions, proposed site developments, applicable critical area regulations, and preliminary conceptual mitigation planning for the Nisqually State Park – New Full-Service Park. All wetland work will follow the revised *Washington State Wetland Rating System for Western Washington: 2014 Update* (Hruby 2014), and the *Corps of Engineers Wetlands Delineation Manual* (U.S. Army Corps of Engineers [USACE] 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, Coastal Region (Version 2.0)* (USACE 2008). The results will be used to support a USACE Jurisdictional Determination for all jurisdictional wetlands within the installation.

EcoAssets and Washington State Parks and Recreation Commission (WSPRC) utilized information on wetland site constraints during the design process to avoid and minimize impacts to critical areas in accordance with federal, state, and local regulations. This document also details compliance with Pierce County critical area regulations and shoreline no-net-loss requirements.

This report is an addendum to a 2021 critical areas report and concurs with other are findings, and approach to mitigation strategies (The Watershed Company 2021).

1.1 PROJECT LOCATION

Nisqually State Park is located off Highway 7 (National Park Highway) in Pierce County, Washington (WA) (Figure 1, Figure 2). The State Park is approximately 1,300 acres in size and the nearest incorporated city is Eatonville, located around 1.5 miles east of the park entrance.

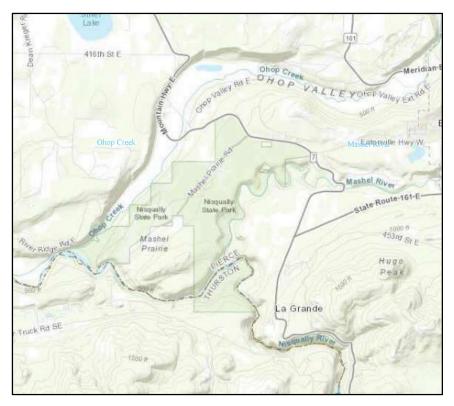


Figure 1. Nisqually State Park boundary and location



Figure 2. General vicinity of Nisqually State Park

2 METHODS

2.1 LITERATURE AND PUBLICLY AVAILABLE DATA REVIEW

Prior to the field assessment, EcoAssets researched existing information on wetlands and other surface waters documented within the project boundary. The list below includes available literature which was reviewed:

- USFWS National Wetlands Inventory (NWI) maps
- USDA NRCS Web Soil Survey Custom Soil Resource Report for Pierce County, WA
- USDA NRCS WES hydrologic data
- Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) on the Web
- WDFW SalmonScape
- Pierce County's Public GIS
- Washington State Department of Natural Resources Forest Practices Application and Mapping Tool
- Washington State DNR Washington Light Detection and Ranging (LiDAR) Portal
- Washington State DNR Washington Natural Heritage Program (WNHP) Data Explorer
- Wetlands of High Conservation Value (WHCV) mapping
- Washington State Department of Ecology Water Quality Atlas
- WSDOE Washington State Water Quality Assessment 303(d)/305(b) List, Version 5.0.1.
- U.S. Geological Survey (USGS) StreamStats
- USGS National Hydrography Dataset
- Satellite imagery available from Google Earth, ESRI, and Pierce County

2.2 WETLAND DELINEATION

The wetland delineation and assessment was conducted through October and November 2023 in accordance with the guidance set forth in the *Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coast Region* (Version 2.0) (USACE 2008). To maintain consistency between the state and federal delineations of wetlands, the WSDOE repealed the state delineation manual (Washington Administrative Code [WAC] 173-22-080). It replaced it with a revision of WAC 173-22-035 that states delineations should be completed according to the currently approved federal manual and supplements. The changes were effective March 14, 2011.

For regulatory purposes, wetlands are distinguished from uplands by the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Wetlands throughout the site were delineated and assessed by EcoAssets staff using the identification of hydrophytic vegetation, hydric soils, and wetland hydrology, and findings were recorded on a USACE *Wetland Determination Data Form –Western Mountains, Valleys, and Coast Region (Version 2.0)* at two sample plots for each delineated feature – one within the wetland, and one in the upland. A map is provided in the Appendix o f plot locations. The completed forms are included in The Appendix, Wetland Determination Data Forms – Western Mountains, Valleys, and Coast Region.

Delineated wetland boundaries were recorded using a submeter global positioning system (GPS) and an Arrow GPS receiver paired with ArcGIS Field Maps application for subsequent mapping. The boundaries provided are reasonable representations from aerial imagery and reconnaissance in the early part of the assessment. While 27 wetlands were identified and delineated, 16 were selected by the client to be rated for buffers. These were ones that had proposed trails within 150 ft. of wetland boundaries. This conservative distance was used to prioritize the Ratings (In the final analysis all buffers were less distance than these. Delineation Forms are provided for the remaining 11 wetlands.

2.2.1 VEGETATION

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (USACE 1987). For each wetland identified, aerial vegetation coverage was recorded in the field on USACE wetland determination forms, which specify the sampling of plants in each stratum present in the plot. For this study, vegetation was observed in relation to the soil sample pits taken at each delineated wetland.

The most abundant coverage was typically found in the herb stratum, as observed in a sample plot measuring a five-foot radius from each soil pit. Tree and sapling/shrub strata were measured within 30- and 15-foot radii from wetland soil sample pits, respectively. Plant species were analyzed according to their regional wetland indicator status, with dominance or prevalence tests used as needed to determine the overall presence of hydrophytic vegetation in each sample plot. Each species' wetland indicator status was recorded based on its listing for the Western Mountains, Valleys, and Coast Region in the *National Wetland Plant List, version 3.5* (USACE 2020). Each plot's hydrophytic vegetation status was calculated using methods as described in the *Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Region (Version 2.0)* (USACE 2008).

2.2.2 SOILS

Hydric soils are soils that form under saturation conditions, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. These soils are occasionally shallow in the study area, with visible depletions or gleyed matrices below dark surface horizons containing organic material. Soil sample pits were used to confirm the presence of hydric soils and to verify the extent of wetland areas. Pits were excavated inside each wetland and upland from the delineated areas. Soils from each sample pit were evaluated for color, texture, and field indicators of hydric soils as described in the *Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Region (Version 2.0)* (USACE 2008). Soil colors were determined using the Munsell Soil Color Chart (2009). A soil profile description of each sample pit up to 16 inches in depth, with no restrictive layer, was recorded on the USACE *Wetland Determination Data Form – Western Mountains, Valleys, and Coastal Region (Version 2.0)*, along with indicators of hydric soils present.

2.2.3 Hydrology

Wetland hydrology is defined as all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season (USACE 1987). Hydrologic indicators used by field biologists to assist in wetland identification are listed in the *Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Region (Version 2.0)* (USACE 2008). Hydrologic indicators are divided into Primary and Secondary categories within four separate groups: Group A – Observation of Surface Water or Saturated Soils, Group B – Evidence of Recent Inundation, Group C – Evidence of Current or Recent Soil Saturation, and Group D – Evidence from Other Site Conditions or Data. At least one primary indicator confirms hydrology; in less obvious situations, secondary indicators may be combined to verify the presence of wetland hydrology.

2.3 WETLAND CLASSIFICATION RATING

Wetlands were rated according to the *Washington State Wetland Rating System for Western Washington: 2014 Update*, using a set of tiered questions based on the hydrogeomorphic (HGM) classification of each wetland to assess its water quality, hydrology, and habitat functions (Hruby 2014). HGM classification is a functional index designed to inform wetland management decisions by accounting for geomorphic and hydrologic attributes (Brinson 1993). At the highest level of HGM classification, wetlands are separated into seven classes; only one of these is represented in the study area, Depressional & Flats. All wetlands delineated in NSP are classified as Depressional & Flats because, although they appear to exist in flat areas, they actually occur in extensive topographic depressions, allowing surface water accumulation. The dominant hydrodynamics in depressional wetlands are vertical fluctuations which are typically seasonal.

Most wetlands were assigned a category based on wetland function, which was assessed by responses to questions resulting in a numerical score. As discussed in the subsections below, questions were answered using field observations and spatial analysis. The completed Western Washington Wetland Rating Forms are available as an Appendix.

2.3.1 COWARDIN CLASSIFICATION

Wetland parameters were characterized using the wetland classes defined by the Cowardin system (Cowardin et al. 1979). The Cowardin system describes wetlands by the plant communities, soils, and hydrologic regimes present. Cowardin plant classes are distinguished by the uppermost layer of plants that provide more than 30% surface cover within all or part of a wetland. Using this guidance, wetland areas were identified based on field observations as Forested, Scrub-Shrub, Emergent, Aquatic Bed, or Open Water pursuant to definitions in Section 5.2 of the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Hruby 2014). Cowardin plant classifications were digitized into polygons for subsequent mapping.

2.3.2 Hydroperiod

Areas within wetlands of occasional, seasonal, and permanent ponding were identified through field observations such as visible surface water; watermarks on vegetation, sediment, or debris; water-stained vegetation lying on the wetland surface; algal mats; and distinct changes in vegetation; as well as a review of aerial imagery. These areas were digitized into polygons for subsequent mapping. Surface water outlets, if present, were identified in the field.

2.3.3 CONTRIBUTING BASIN

Nisqually State Park topography includes isolated depressions and extensive low-slope areas resulting in most of the delineated wetlands having isolated contributing basins. Contributing basins for each wetland were delineated based on field observations and digitized for subsequent mapping.

2.3.4 Sources of Pollutants and Runoff

Land uses that are sources of pollutants and runoff were identified within a 150-foot buffer surrounding all wetlands. The primary pollutant associated with the trail system is manure.

2.3.5 LAND USE INTENSITY AND HABITAT

Land use intensity and undisturbed and accessible habitat were identified within a 1-kilometer buffer surrounding all wetlands. High-intensity land uses include commercial areas, urban areas, industrial areas, institutional uses, retail sales, residential areas with a density greater than one unit per acre, high-intensity agriculture, and high-intensity recreation. Low- to moderate-intensity uses include residential areas with a density of less than one unit per acre, parks, moderate-intensity agriculture, pastures, trails, forestry, and utility corridors. Relatively undisturbed habitat includes areas free of regular disturbances like tilling and cropping, residential and urban development, grazing, paved roads, mowing, pet use, boating, and fishing. Accessible habitat includes areas of relatively undisturbed habitat and low to moderate-intensity uses adjacent to a wetland without crossing any high-intensity uses (Hruby 2014).

2.3.6 WATER QUALITY

Impaired waters regulated by Section 303(d) of the Clean Water Act (CWA) within the same basin or within one mile downstream of any wetland were identified using the WSDOE Washington State Water Quality Assessment 303(d)/305(b) List, Version 5.0.1. Total Maximum Daily Loads within the Water Resource Inventory Area (WRIA) for all wetlands were also considered for the Rating.

2.3.7 PLANT COVER

For Depressional & Flats wetlands, plant cover was assessed through field observations and placed in the tree, shrub, or herb stratum. The indicator status of each species was recorded as obligate (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), or upland (UPL). Absolute % cover was measured to determine the extent to which each species contributes to the overall vegetation composition, and the dominant species within each stratum was identified.

3 RESULTS AND DISCUSSION

3.1 DESCRIPTION OF THE STUDY AREA

3.1.1 LANDSCAPE CHARACTERISTICS

Nisqually State Park has a diverse landscape including large river flood terraces, slopes, ravines and marshy bottomland. Wetlands are distributed throughout and when isolated they appeared in small hummocks or terraced areas. The forested area is natural and managed secondary growth coniferous forests, wetlands, lakes, rivers, riparian corridors, prairies, abandoned logging roads, agricultural lands, rural residential properties, and utility easements. The vegetation within the park is largely native with Douglas-fir dominating the canopy. Around 80% of the wildlife habitat within a 1-kilometer radius of the action area is undisturbed or moderately disturbed.

3.1.2 VEGETATION

Nisqually State Park contains large areas of past commercial Douglas-fir (*Pseudotsuga menziesii*) timberlands. Other predominant tree species include Big Leaf Maple (*Acer macrophyllum*), Black Cottonwood (*Populus trichocarpa*), Oregon ash (*Fraxinus latifolia*), Red Alder (*Alnus rubra*), Vine Maple (*Acer circinatum*), and Western Red Cedar (*Thuja plicata*). The assessment noted several areas of the park undergoing diversity restoration practices including thinning and planting of Western Red Cedar, Lodgepole Pine (*Pinus contorta*), and Western White Pine (*Pinus monticola*).

The most commonly observed shrubs included Big Leaf Maple (*Acer macrophyllum*), Oregon ash (*Fraxinus latifolia*), Oregon grape (*Mahonia aquifolium*), Red Alder (*Alnus rubra*), Salmonberry (*Rubus spectabilis*), and Vine Maple (*Acer circinatum*). Common herbaceous species included Salal (*Gaultheria shallon*), Slough Sedge (*Carex obnupta*), Sword Fern (*Polystichum munitum*), Trailing Blackberry (*Rubus ursinus*), and Water Parsley (*Oenanthe sarmentosa*).

Invasive plant species observed included Reed Canarygrass (*Phalaris arundinacea*), Himalayan Blackberry (*Rubus armeniacus*), Scotch Broom (*Cytisus scoparius*). A complete list of all the species identified in wetlands can be found in Table 3-1.

Table 3-1. Plant species observed in wetlands.

Vegetation Observed in Nisqually State Park Wetlands							
Common Name Scientific Name							
Trees							
Beaked Hazelnut	Corylus cornuta						
Big Leaf Maple	Acer macrophyllum						
Black Cottonwood	Populus trichocarpa						
Black Hawthorne	Crataegus douglasii						
Cascara Buckthorn	Rhamnus purshiana						
Douglas Fir	Pseudotsuga menziesii						

Oregon Ash	Fraxinus latifolia			
Red Alder	Alnus rubra			
Vine Maple	Acer circinatum			
Western Red Cedar	Thuja plicata			
Sh	rubs			
Big Leaf Maple	Acer macrophyllum			
Beaked Hazelnut	Corylus cornuta			
Black Cottonwood	Populus trichocarpa			
Cascara Buckthorn	Rhamnus purshiana			
Douglas Fir	Pseudotsuga menziesii			
Douglas Spirea	Spiraea douglasii			
English Holly	Ilex aquifolium			
Himalayan Blackberry	Rubus armeniacus			
Nettle	Urtica dioica			
Nootka Rose	Rose nutkana			
Ocean Spray	Holodiscus discolor			
Oregon Ash	Fraxinus latifolia			
Oregon Grape	Mahonia aquifolium			
Osoberry	Oemleria cerasiformis			
Pacific Dogwood	Cornus nuttallii			
Pacific Nineback	Physocarpus capitatus			
Red Alder	Alnus rubra			
Red Current	Ribes rubrum			
Red Huckleberry	Vaccinium parvifolium			
Salal	Gaultheria shallon			
Salmonberry	Rubus spectabilis			
Scotch Broom	Cytisus scoparius			
Snowberry	Symphoricarpos albus			
Spiny Sow Thistle	Sonchus asper			
Sword Fern	Polystichum munitum			
Thimbleberry	Rubus parviflorus			
Trailing Blackberry	Rubus ursinus			
Twin Berry	Lonicera incolucrata			
Vine Maple	Acer circinatum			
Western Red Cedar	Thuja plicata			
He	erbs			
Alpine Ladyfern	Athyrium distentifolium			
Common Soft Rush	Juncus effusus			
Deer Fern	Blechnum spicant			

Giant Horsetail Fern	Equisetum telmateia
Herb Robert	Geranium robertianum
Oregon Grape	Mahonia aquifolium
Piggyback Plant	Tolmiea menziesii
Pinnacled Bulrush	Schoenoplectus pungens
Reed Canary Grass	Phalaris arundinacea
Salal	Gaultheria shallon
Slough Sedge	Carex obnupta
Sword Fern	Polystichum munitum
Trailing Blackberry	Rubus ursinus
Water Parsley	Oenanthe sarmentosa
Water Speedwell	Veronica anagallis-aquatica
Western Bracken Fern	Pteridium aquilinum var. pubescens
Wild Strawberry	Fragaria virginiana

3.1.4 Soils

The Pierce County, WA Web Soils Survey identified 26 soil map units within the project boundary (Appendix). Field investigations confirmed that the common gravelly loam and sand were a predominant characteristic across the landscape, having moderate and well-drained conditions.

3.1.5 Hydrology

Hydrologic indicators were present within the delineated wetlands. The precipitation for the period leading up to the field work was normal (see Appendix Hydrology Tools). Analysts noted secondary hydrology indicators in the wetland determination form, but all wetlands contained qualifying primary indicators.

The WDNR FPARS map in the Appendix provides stream layout. The Mashel and Nisqually Rivers are Type S Waters (See Water Type Maps in Appendix). The National Hydrography Data (NHD) indicates Type N (non-fish-bearing and Type U (unknown) Waters within the NSP. The streams appear on maps since they are modeled and predicted, not observed. The well drained upland soils and loam soils within the wetlands infiltrate uplands readily and maintain water in depressional areas. Thus across the landscape are many isolated wetlands with no outlets. Analysts did not observe channels that would qualify as streams under minimum flow, channel characteristics (scour, floodplain) and therefore do not provide riparian buffers for streams. In instances where wetlands were in series or mosaic, connections were either topographic depressions or swales. If associated with the connectivity of wetlands they were assigned wetland buffers which exceeds Type N stream buffer width. Trailside ditches were delineated as wetlands if prominent and met vegetation, hydrology and soil indicators.

External stormwater drainage is maintained outside of NSP boundaries. All of the wetlands are depressional and have localized contributing basins.

3.2 WETLANDS DELINEATED IN STUDY AREA

Field investigations confirmed the presence of and delineated 27 wetlands within the study area. Sixteen of these 27 were selected for Rating and further evaluation due to their proximity to the proposed trail network. The characteristics of each wetland are summarized in Appendices by Rating Forms, Determination Forms and Images. The Following Table provides an overview of the 16 wetlands that were given full delineation and rating.

Table 3-2 Wetlands in the Study Area

Adjustment Rationale		Plant Diversity, Size	N/A	Multi Cowardin, Hydro	Multi Cowardin	Multi Cowardin, Habitat Score	Multi Cowardin, Habitat Score	Multi Cowardin
Adjusted Buffer Width (ft)		92	100	75	92	92	92	75
Base Buffer Width (ft) based on Rating		50	100	50	50	50	50	20
Wetland Size (sq ft) based on 150 ft		704265	16158	137178	98969	21315	5844	5206
	Land Use Intensity	Гом	Гом	Low	Low	Low	Гом	Low
	WDOE Habitat Score	7	7	7	7	7	7	7
nd Rating	Local Jurisdiction	III	II	III	III	III	III	≡
ating	Ecology		=	Ш	III			≡
Wetland Rating	Hydro Period _d	SF SO	SF OF SO	SF SO	SF SO	SF OF SO	SF OF SO	SO
W	Total Habitat Score _c	13	13	13	14	16	16	15
	HGM _b	Depressional & Flats	Depressional & Flats	Depressional & Flats	Depressional & Flats	Depressional & Flats	Depressional & Flats	Depressional & Flats
	Cowardin _a	PSS, PEM	AB, PEM	PFO	PEM, PSS	AB, PEM, PSS	PEM, PSS, PFO	PEM, PSS, PFO
Wetland		W13 (complex)	W23	W15	7W	W21	W24	W26

W8	PEM, PSS, PFO	Depressional & Flats	19	SF SO	≡	Ш	2	Low	98009	90	100	Multi Cowardin, Habitat Score
W11	PFO	Depressional & Flats	11	SF SO	≣	≡	9	Low	19617	50	75	Size
W14	PSS	Depressional & Flats	9	SF SO	≥	≥	5	Low	794	25	50	A/A
W25	PEM, PSS	Depressional & Flats	13	OF SO	≣	≡	2	Low	2790	50	50	N/A
W12	PSS	Depressional & Flats	5	SF	I	≡	9	Low	509	50	50	N/A
W20	PEM, PSS	Depressional & Flats	8	OF	2	<u>>1</u>	5	Low	1812	25	25	N/A
W5	PEM, PSS, PFO	Depressional & Flats	16	SF OF SO	≡	III	7	Low	14730	50	100	Multi Cowardin, Habitat Score, Size
W17	PEM	Depressional & Flats	6	SF OF	III	III	5	Low	1106	50	50	N/A
W16	PSS, PFO	Depressional & Flats	6	OF	≣	≡	9	Low	3145	50	50	N/A

a Cowardin Class: PEM palustrine emergent, PFO palustrine forested, PSS palustrine scrub shrub

b HGM Hydrogeomorphic class

c Total score from the wetland rating system

d PF: Permanently Flooded; SF; Seasonally Flooded: OF; Occasionally Flooded: SO; Saturated Only: PFS; Permanently Flowing Stream: SFS Seasonally Flowing Stream

3.2.1 VEGETATION HIGHLIGHTS

Within NSP, Scrub-Shrub is the most common Cowardin class, having been observed in 12 of the 16 delineated wetlands. Scrub-Shrub wetlands are defined as being "dominated by woody vegetation less than 20 feet tall. Plant species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions".

The Emergent Cowardin class was also well represented, having been documented in 10 of the 16 delineated wetlands. Emergent wetlands are those "characterized by rooted herbaceous and grasslike plants which stand erect above the water or ground surface (excluding lichen and moss). Vegetation is present for most of the growing season in most years.

Forested areas were found in 8 of the 16 wetlands in NSP. These are defined as a "wetland dominated by woody vegetation 20 feet or taller. They are fairly complex, usually containing an over story of trees, an understory of young trees and shrubs, and an herbaceous layer". In many cases, forest vegetation was not sufficient to classify the entire wetland accordingly, and sample plots were chosen to accurately represent the top layer of plants having greater than 30% cover.

Aquatic bed wetlands were observed in 2 of the 16 NSP wetlands. They are described as "areas of water dominated by plants that grow principally on or below the surface of water for most of the growing season".

4 LIMITATIONS

Wetland delineations and functional assessments are provided to inform management decisions, including the determination of jurisdictional authority regarding permitting procedures. The USACE issues jurisdictional determinations to assert regulation under CWA Section 404; this assessment does not assume the jurisdiction of any delineated wetlands.

5 REFERENCES

- *Brinson, Mark M. 1993. Wetlands Research Program Technical Report WRP-DE-4 A Hydrogeomorphic Classification for Wetlands. U.S. Army Engineer Waterways Experiment Station: Vicksburg, MS. Available from: <u>WRP-DE-4</u> (tulane.edu).
- *Cowardin L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Prepared for: U.S. Department of the Interior, FWS.
- * Hruby, T. (2014). Washington State Wetland Rating System for Western Washington: 2014 Update. (Publication #14-06-029). Olympia, WA: Washington Department of Ecology.
- *Munsell Color. 2009. Munsell soil-color charts: with genuine Munsell color chips. Grand Rapids, MI: Munsell Color.
- *The Watershed Company. January 2021. Nisqually State Park New Full Service Park, Critical Areas Report
- *United States Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1.
- * United States Army Corps of Engineers. 2020. National Wetland Plant List, version 3.5.

6 APPENDICES

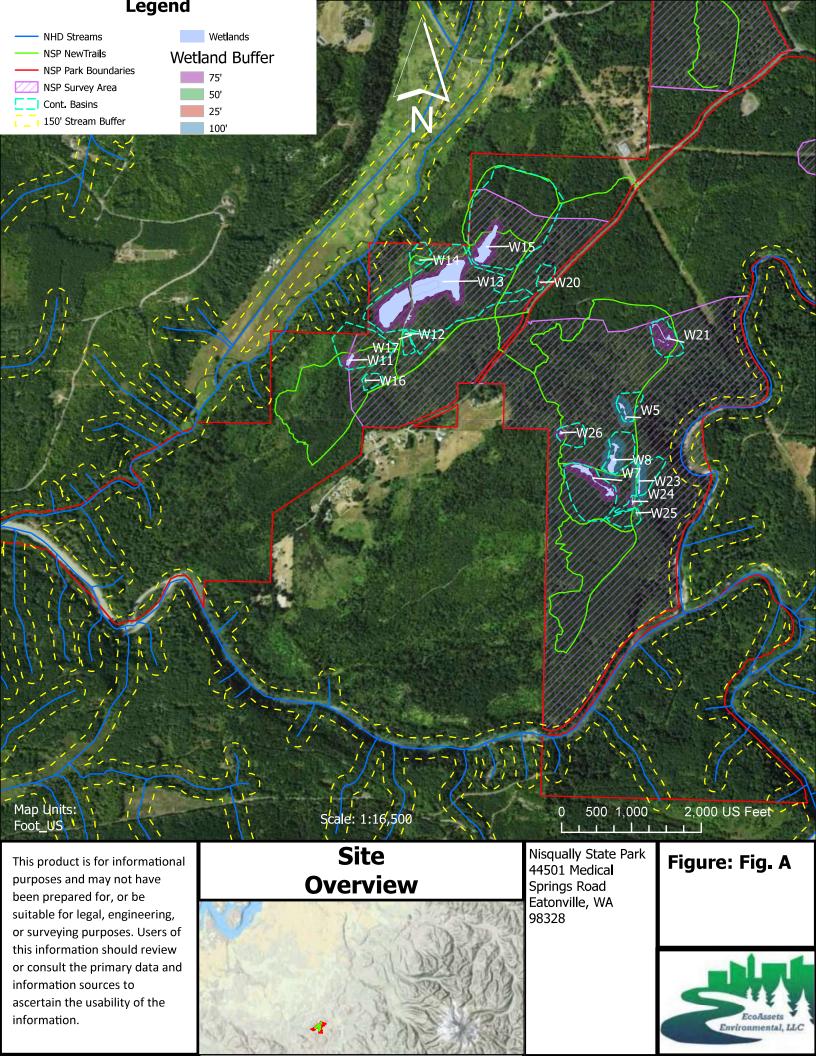
Wetland Images

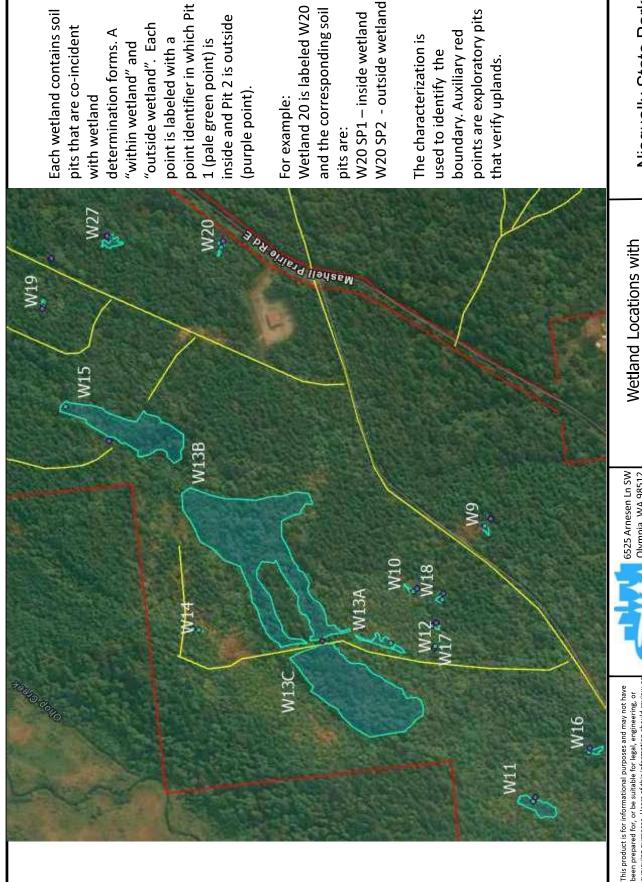
Wetland Determination Forms

Wetland Rating Forms

Wetland Support Maps

Auxiliary Supporting Information



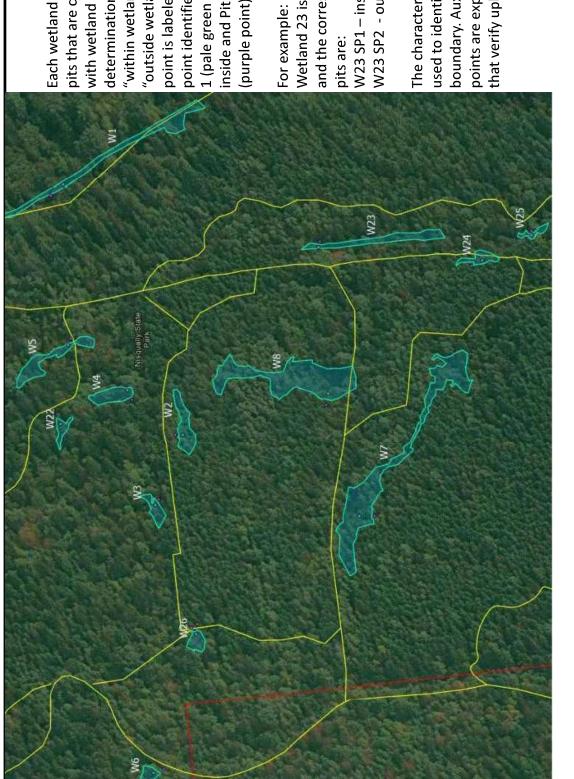


Nisqually State Park

been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

6525 Arnesen Ln SW Olympia, WA 98512 www.ecoassets.us (360) 915-4194

Soil Pit locations (west)



point identifier in which Pit Each wetland contains soil inside and Pit 2 is outside "outside wetland". Each pits that are co-incident determination forms. A point is labeled with a 1 (pale green point) is "within wetland" and (purple point). with wetland

Wetland 23 is labeled W23 and the corresponding soil

W23 SP2 - outside wetland W23 SP1 – inside wetland

points are exploratory pits boundary. Auxiliary red The characterization is used to identify the that verify uplands.

> been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. This product is for informational purposes and may not have

Wetland Locations with Soil Pit locations (east)

6525 Arnesen Ln SW Olympia, WA 98512

www.ecoassets.us (360) 915-4194

Nisqually State Park

Project/Site: Nisqually State Park	(City/Cou	nty: Pierce	Sa	mpling Date: 10/31/2	2023
Applicant/Owner: WA State Parks				State: WA Sa		
Danibarra Harris	;			nge:	. •	
				convex, none): Concave	Slope (%)	<u>:</u> 6
Subregion (LRR):						
				NWI classificatio		
Are climatic / hydrologic conditions on the site typical for thi					·	
Are Vegetation \underline{Y} , Soil \underline{Y} , or Hydrology \underline{Y}	-			Normal Circumstances" pres		lo
Are Vegetation N, Soil N, or Hydrology N r				eded, explain any answers ir		
SUMMARY OF FINDINGS – Attach site map				•	·	es, etc.
Hydrophytic Vegetation Present? Yes X N				_		
Hydric Soil Present? Yes X N			s the Sampled vithin a Wetlar		No	
Wetland Hydrology Present? Yes X N	lo		Tumi a Wedan	103		
Remarks: Managed roadside ditch creating & maintair VEGETATION – Use scientific names of plan		ogy.				
201	Absolute		ant Indicator	Dominance Test workshe	et:	
Tree Stratum (Plot size: 30')			s? Status	Number of Dominant Speci That Are OBL, FACW, or F		(A)
2.					AO	. (八)
3.				Total Number of Dominant Species Across All Strata:	2	(B)
4.						. (-)
15'		= Total	Cover	Percent of Dominant Speci That Are OBL, FACW, or F		(A/B)
Sapling/Shrub Stratum (Plot size: 15' 1. RUSP Salmonberry	10	Y	FAC	Prevalence Index worksh	eet:	
		<u>'</u>	_ 170	Total % Cover of:	Multiply by:	
					_ x 1 = <u>3</u>	_
3				FACW species 3	_	_
5.	_				_ x 3 = 75	_
	10	= Total	Cover		_ x 4 = <u>8</u>	_
Herb Stratum (Plot size: 5'			E 4 6)44		_ x 5 =	
1. EQTE Giant Horsetail Fern		Y		Column Totals: 33	(A) <u>92</u>	(B)
2. TOME Piggyback Plant	- 15	N	_ FAC	Prevalence Index = E		_
3. RVUR Trailing Blackberry OESA Water Parsley	$-\frac{2}{3}$	N N	<u>FACU</u> OBL	Hydrophytic Vegetation I		
· · · · · · · · · · · · · · · · · · ·				1 - Rapid Test for Hydr		
5				2 - Dominance Test is		
6				3 - Prevalence Index is		
7 8				4 - Morphological Adap data in Remarks or	otations" (Provide sur on a separate sheet)	
9.				5 - Wetland Non-Vascu	•	
10				Problematic Hydrophyt		ain)
11.				¹ Indicators of hydric soil an		
	00	= Total (Cover	be present, unless disturbe	d or problematic.	
Woody Vine Stratum (Plot size:)						
1				Hydrophytic		
2				Vegetation Present? Yes X	No	
% Bare Ground in Herb Stratum 75		= Total (Cover			
Remarks:						

SOIL

Sampling Point: W1 SP1

Profile Description: (Descripe to the depth peeded to decument the indicator or confirm the change of indicators.)

Profile Des	cription: (Describ Matrix		th needed to document the indicator or co Redox Features	onfirm the abse	nce of indicators.)
(inches)	Color (moist)	%	Color (moist) % Type ¹ Lo	c ² Texture	
0 - 7	10 YR 2/1	100		Muck	Sandy, Muck
7 -16	5 YR 4/1	100		Si Sn	Silt, Sand
					_
					
			Reduced Matrix, CS=Covered or Coated Sa		² Location: PL=Pore Lining, M=Matrix.
-		licable to all	LRRs, unless otherwise noted.)		cators for Problematic Hydric Soils³:
Histoso	• •		Sandy Redox (S5)		2 cm Muck (A10)
	pipedon (A2) istic (A3)		Stripped Matrix (S6)Loamy Mucky Mineral (F1) (except MLF	· · · · · · · · · · · · · · · · · · ·	Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Mucky Milleral (F1) (except MLF Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	d Below Dark Surf	ace (A11)	Depleted Matrix (F3)	_	Carol (Explain in Romano)
	ark Surface (A12)	,	Redox Dark Surface (F6)	³ Indi	cators of hydrophytic vegetation and
	/lucky Mineral (S1)		Depleted Dark Surface (F7)		etland hydrology must be present,
	Gleyed Matrix (S4)		Redox Depressions (F8)	u	nless disturbed or problematic.
	Layer (if present)				
Type:					Y
Depth (in Remarks:	ches):			Hydric	Soil Present? Yes X No
_	drology Indicator				
		f one required	l; check all that apply)		econdary Indicators (2 or more required)
X Surface			Water-Stained Leaves (B9) (excep		_ Water-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)		MLRA 1, 2, 4A, and 4B)	_	4A, and 4B)
X Saturati			Salt Crust (B11)	·	C Drainage Patterns (B10)
	Marks (B1) nt Deposits (B2)		Aquatic Invertebrates (B13) _X Hydrogen Sulfide Odor (C1)		Dry-Season Water Table (C2)Saturation Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized Rhizospheres along Living	· ·	
	at or Crust (B4)		Presence of Reduced Iron (C4)	-	Shallow Aquitard (D3)
Iron De			Recent Iron Reduction in Tilled Soil		_ FAC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (LI		_ Raised Ant Mounds (D6) (LRR A)
Inundati	ion Visib l e on Aeria	al Imagery (B7			_ Frost-Heave Hummocks (D7)
X Sparsel	y Vegetated Conca	ave Surface (E	38)		
Field Obser	vations:		,		
Surface Wat	er Present?	Yes X I	No Depth (inches): 1		
Water Table	Present?	Yes X I	No Depth (inches): 0		
Saturation P		Yes <u>X</u> 1	No Depth (inches): 0	Wetland Hydro	ology Present? Yes X No
	pillary fringe) corded Data (strea	ım gauge, mo	nitoring well, aerial photos, previous inspecti	ons), if available	:
	,	- - -	2	,	
Remarks:					

Project/Site: Nisqually State Park	(City/County	Pierce	Sampling Date: 10/31/2023
Applicant/Owner: WA State Parks	-			State: WA Sampling Point: W1 SP2
Investigator(s): Dominguez, Hearsey				
				convex, none): Sloped Slope (%): 15
Subregion (LRR):				
				NWI classification:
Are climatic / hydrologic conditions on the site typical for the				
Are Vegetation N , Soil N , or Hydrology N	· ·			
Are Vegetation N, Soil N, or Hydrology N				eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map			•	
Hydrophytic Vegetation Present? Yes		<u> </u>	<u> </u>	, , , ,
Hydric Soil Present? Yes	No X		e Sampled	
Wetland Hydrology Present? Yes		with	in a Wetlaı	nd? Yes No X
Remarks: Upland characterized by Evergreen Maple, VEGETATION – Use scientific names of pla		n commu	nity. Hor	se manure.
VEGETATION GOO GOIGHTHIO HAMES OF PIA	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30'	% Cover	Species?	Status	Number of Dominant Species
1. ACMA3 Big Leaf Maple	_ 30		FACU	That Are OBL, FACW, or FAC: 3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 6 (B)
4	30	= Total Co	——	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15'	-	_ = 10tal C0	vei	That Are OBL, FACW, or FAC: .5 (A/B)
1. RVAR Himalayan Blackberry	15		FACU	Prevalence Index worksheet:
2. RUSP Salmonberry	_ 10		FAC	
3. ACCI Vine Maple	_ 5		FAC	FACW species x 2 =
4				FAC species x 3 =
5	- 30			FACU species x 4 =
Herb Stratum (Plot size: 5')	30	_= Total Co	ver	UPL species x 5 =
1. EQTE Giant Horsetail Fern	40		FACW	Column Totals: (A) (B)
2. PTAQ Westernbracken Fern	30		FACU	Prevalence Index = B/A =
3. TOME Piggyback Plant	10		FAC	Hydrophytic Vegetation Indicators:
4. TOMU Sword Fern	30		FACU	1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 ¹
7				4 - Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹
10				Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must
11		- Total Co		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	100	= Total Cov	rei	
1				Hydrophytic
2				Vegetation
0/ Bara Cassard in Harb Charles 5		= Total Cov	er er	Present? Yes No X
% Bare Ground in Herb Stratum 5 Remarks:				
15% MOss				

SOIL Sampling Point: W1 SP2

Profile Desc	ription: (Descri	be to the de	epth nee	eded to docur	nent the i	ndicator	or confirm	the absence of indicators	ş.)
Depth	Matrix				x Feature:	s			
(inches)	Color (moist)		<u>Cc</u>	olor (moist)	%	Type ¹	<u>Loc²</u>	Texture	Remarks
0 - 3	10 YR 2/1	<u>100</u>						Sa Lo	
3 - 15	5 YR 4/1	100						Lo Sn	
							•		
	=								
					-				
	oncentration, D=D						ed Sand Gr		ore Lining, M=Matrix.
-	ndicators: (App	licable to a				ed.)			ematic Hydric Soils³:
Histosol	. ,			Sandy Redox (2 cm Muck (A10)	
	pipedon (A2)			Stripped Matrix				Red Parent Mate	• •
Black Hi				oamy Mucky N			MLRA 1)	Very Shallow Dar	
	n Sulfide (A4)	F (A 4 4)		oamy Gleyed		()		Other (Explain in	Remarks)
	Below Dark Sur	race (A11)		Depleted Matrix				31	Comments Comment
	ark Surface (A12)	`		Redox Dark Su	. ,	>		³ Indicators of hydroph	•
	lucky Mineral (S1	•		epleted Dark		.7)		wetland hydrology unless disturbed o	· · · · · · · · · · · · · · · · · · ·
	leyed Matrix (S4) ayer (if present			Redox Depress	ions (Fo)			uniess disturbed o	problematic.
	-ayer (ii present	,.							
Type:									Yes No X
Depth (inc	cnes):							Hydric Soil Present?	Yes No
Remarks:									
HYDDOLO	CV								
HYDROLO									
_	drology Indicato								
Primary Indic	cators (minimum o	of one requi	ed; che	ck all that appl	у)			Secondary Indicate	ors (2 or more required)
Surface	Water (A1)		-	Water-Sta	ined Leav	es (B9) (e	xcept	Water-Stained	Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)			MLRA	1, 2, 4A, a	and 4B)		4A, and 4B)
Saturatio	on (A3)		_	Salt Crust	(B11)			Drainage Patte	erns (B10)
Water M	arks (B1)		_	Aquatic In	vertebrate	s (B13)		Dry-Season W	ater Table (C2)
	nt Deposits (B2)			Hydrogen					ble on Aerial Imagery (C9)
·	posits (B3)		-				Livina Roc	s (C3) Geomorphic P	
-	it or Crust (B4)		-	Presence	•	_	_	Shallow Aquita	, ,
	osits (B5)		-	Recent Iro					
-	Soil Cracks (B6)			Stunted or					ounds (D6) (LRR A)
		al Imagen <i>i i</i>					I) (LIXIX A	Raised Ant Mo	, , , , ,
	on Visib l e on Aeri Vegetated Conc		_	Other (Exp	Jiaiii iii Ke	illaiks)		Flost-neave n	ummocks (D7)
Field Observ		ave Suriace	(60)						
				D	- I X				
Surface Wate				Depth (in			l l		
Water Table	Present?			Depth (in					V
Saturation Pr		Yes	_ No	Depth (in	ches):		Wetla	nd Hydrology Present?	Yes No X
(includes cap Describe Red	onary fringe) corded Data (stre	am gauge i	nonitorir	ng well, aerial	photos, pr	evious ins	pections)	available:	
200020 1.00	oo.aca bata (cc.	a gaago, .		ig iron, acriai	pe.tee, p	01.0000	podo.,,	a rangasio.	
Remarks:									
Nomalina.									

Project/Site: Nisqually State Park	(City/County:	Pierce		Sampling Date: 10/31/2023
Applicant/Owner: WA State Parks				State: WA	Sampling Point: W2-SP1
Investigator(s): Dominguez, Hearsey	;			nge:	
					Slope (%): < 1
Subregion (LRR):					
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation N , Soil N , or Hydrology N signals	gnificantly o	disturbed?	Are "	Normal Circumstances" p	resent? Yes X No
Are Vegetation N , Soil N , or Hydrology N na			(If ne	eded, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	sampling	g point le	ocations, transects,	, important features, etc.
Hydrophytic Vegetation Present? Yes X No					
Hydric Soil Present? Yes X No			e Sampled		
Wetland Hydrology Present? Yes X No		withi	in a Wetlan	nd? Yes <u>^</u>	No
Remarks: Depleted Below					
Bopiolog Bolow					
└ VEGETATION – Use scientific names of plants					
•	Absolute	Dominant	Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 30'		Species?	Status	Number of Dominant Sp	
1. FRLA Oregon Ash	5	<u>Y</u>	FACW	That Are OBL, FACW, o	
2. ALRU Red Alder	10	<u>Y</u>	FAC	Total Number of Domina	ant
3. POBA2 Cottonwood	5	<u>Y</u>	FAC	Species Across All Strat	4
4	20			Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15'	20	= Total Cov	ver	That Are OBL, FACW, o	
1				Prevalence Index work	
2.					Multiply by:
3.					x 1 = 80
4					x = 10
5				FAC species 15	
<u> </u>		= Total Co	ver	· -	x 4 = x 5 =
Herb Stratum (Plot size: 5) 1 CAOB3 Slough Sedge	80	Υ	OBL	Column Totals: 100	
"					
2 3				Prevalence Index	<u> </u>
4				Hydrophytic Vegetatio	
5.				2 - Dominance Test	lydrophytic Vegetation
6				3 - Prevalence Inde	
7.					daptations ¹ (Provide supporting
8.					or on a separate sheet)
9.				5 - Wetland Non-Va	iscular Plants ¹
10				Problematic Hydrop	ohytic Vegetation¹ (Explain)
11					and wetland hydrology must
	80	= Total Cov	er	be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic Vegetation	
2				Present? Yes	s <u>X</u> No
% Bare Ground in Herb Stratum 20		= Total Cov	⊡ I		
Remarks:				ı	

SOIL Sampling Point: W2-SP1

Depth	cription: (Descr Matri		oth needed to doc Re	dox Feature		or confir	iii uie absence	of mulcators.)
(inches)	Color (moist		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 10	10 YR 3/1	<u> </u>					_ <u>Lo</u>	Loam
10 -16	2.5 YR 4/1	65	7.5 YR 4/4	35	<u>C</u>	<u> M</u>	Si, Cl	Silt, Clay
					_			
			l=Reduced Matrix, I LRRs, unless oth			ted Sand G		cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
Histosol		pilicable to al	Sandy Redo		ieu.)			m Muck (A10)
	oipedon (A2)		Stripped Mate					Parent Material (TF2)
	istic (A3)		Loamy Muck		1) (exce	ot MLRA 1		y Shallow Dark Surface (TF12)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F	2)		Oth	er (Exp l ain in Remarks)
	d Below Dark Su	. ,	Depleted Mat				2	
	ark Surface (A12)		Redox Dark S	•	•			ors of hydrophytic vegetation and
	/lucky Mineral (S Gleyed Matrix (S4		Depleted Dar Redox Depre	,	•			and hydrology must be present, ss disturbed or problematic.
	Layer (if present		Redox Bepre	3310113 (1 0)	<u>'</u>			so distanced of problematic.
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicate	ors:						
Primary Indi	cators (minimum	of one require	ed; check all that ap	(y l q			Seco	ndary Indicators (2 or more required)
	Water (A1)			Stained Lea		except	<u>_X</u> v	Vater-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)			A 1, 2, 4A,	and 4B)			4A, and 4B)
Saturati	, ,		Salt Cru		(5.46)		_	Orainage Patterns (B10)
	larks (B1)			Invertebrat				Ory-Season Water Table (C2)
	nt Deposits (B2) posits (B3)		Hydroge			a Livina Pa	· · · · · · · · · · · · · · · · · · ·	Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
	at or Crust (B4)		Oxidized			-		Shallow Aquitard (D3)
Iron Der			Recent					FAC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted					Raised Ant Mounds (D6) (LRR A)
	on Visib l e on Aer					, (rost-Heave Hummocks (D7)
	y Vegetated Cond			·	ŕ		<u> </u>	, ,
Field Obser	vations:							
Surface Wat	er Present?	Yes	No X Depth ((inches):				
Water Table	Present?		No X Depth (.,
Saturation P		Yes	No X Depth ((inches):		Wet	tland Hydrolog	y Present? Yes X No
(includes car Describe Re		eam gauge m	onitoring well, aeria	al photos n	revious ir	 spections	. if available	
D COOLING I (C	Jordon Dala (Sile	Jam gauge, II	.c.momig well, acrie	ρποιοσ, ρ	. 5 1 10 4 5 11	.500000113)	, avanable.	
Remarks:								
	ral Test Pa	hass						
	idi i C SLF di	JJGU						

Project/Site: Nisqually State Park			City/County	Pierce		Sampling Date: 10/31/2023
Applicant/Owner: WA State Parks					State: WA	Sampling Point: W2-SP2
Investigator(s): Dominguez, Hearsey					inge:	
Landform (hillslope, terrace, etc.): Woodla						Slope (%): <u>3</u>
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the						
Are Vegetation N , Soil N , or Hy		-				present? Yes X No
Are Vegetation N, Soil N, or Hy					eeded, explain any answe	
SUMMARY OF FINDINGS – Atta				•	-	·
Hydrophytic Vegetation Present?	Yes <u>×</u>			<u> </u>	·	· ·
Hydric Soil Present?	No x		e Sampled		v	
Wetland Hydrology Present?	Yes	No <u>×</u>	with	in a Wetla	nd? Yes	No <u>×</u>
Remarks: Depleted Below VEGETATION – Use scientific n	ames of pla	nts.				
		Absolute	Dominant	Indicator	Dominance Test work	 (sheet:
Tree Stratum (Plot size: 30'	_)		Species?		Number of Dominant S	
1. ALRU Red Alder		20		FAC	That Are OBL, FACW,	or FAC: $\frac{3}{}$ (A)
2. FRLA Oregon Ash 3. PSME Douglas Fir		$-\frac{15}{20}$		FACU FACU	Total Number of Domir	_
		_ 20		FACO	Species Across All Stra	ata: <u>5</u> (B)
4		 55	 = Total Co		Percent of Dominant S	
Sapling/Shrub Stratum (Plot size: 15')		_ = 10tal C0	vei	That Are OBL, FACW,	
1. ACCI Vine Maple		40		FAC	Prevalence Index wor	
2						Multiply by: x 1 =
3					FACW species 15	
4					FAC species 60	x 3 = 180
5					FACU species 55	x 4 = 220
Herb Stratum (Plot size: 5')	40	_ = Total Co	ver		x 5 =
1 GASH Salal	_ /	90		OBL	Column Totals: 130	
2. POMU Sword Fern		10		FACU	Prevalence Index	
3.					Hydrophytic Vegetati	
4					1	Hydrophytic Vegetation
5					2 - Dominance Tes	
6					3 - Prevalence Ind	
7					4 - Morphological	Adaptations ¹ (Provide supporting
8						s or on a separate sheet)
9					5 - Wetland Non-V	
10 11. Seasonal Ponding					1 	phytic Vegetation ¹ (Explain) il and wetland hydrology must
11. Seasonal Fonding		_ 			be present, unless dist	
Woody Vine Stratum (Plot size: -)	100	_= Total Cov	er er		
1.		_			Hydrophytic	
2					Vegetation	v
20			_= Total Cov	er er	Present? Ye	es <u>×</u> No
% Bare Ground in Herb Stratum 20 Remarks:						
Nemarks.						

SOIL Sampling Point: W2-SP2

Depth (inches)	Matrix Color (moist)	%	Color (moist)	Features <u>%</u> Type ¹	Loc ²	Texture	Remarks
	10 YR 2/1	100				Lo	
4 -16	7.5 YR 4/3	100				Sa, Si	
-		<u> </u>					
¹Type: C=Cor	ncentration D=D	— ——— enletion RM	=Reduced Matrix, CS=	Covered or Coated	——— d Sand Gra	ains ² Loc:	ation: PL=Pore Lining, M=Matrix.
			LRRs, unless otherw		a cana cre		rs for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Redox (S	5)		2 cm	Muck (A10)
Histic Epi	pedon (A2)		Stripped Matrix (Red	Parent Material (TF2)
Black Hist	` '			neral (F1) (except	MLRA 1)		Shallow Dark Surface (TF12)
	Sulfide (A4)	(8.4.4)	Loamy Gleyed M			Othe	r (Explain in Remarks)
	Below Dark Surfa k Surface (A12)	ace (A11)	Depleted Matrix (Redox Dark Surf			³ Indicator	s of hydrophytic vegetation and
	ucky Mineral (S1)		Depleted Dark Si				d hydrology must be present,
	eyed Matrix (S4)		Redox Depression				s disturbed or problematic.
Restrictive La	ayer (if present)						
Type:							
Depth (inch	hes):					Hydric Soil I	Present? Yes No X
Remarks:						•	
3" higher I	layer top su	rface					
HYDROL OG							
		6'					
	rology Indicator		id: check all that apply)			Sacon	dany Indicators (2 or more required)
Wetland Hydi	rology Indicator ators (minimum o		d; check all that apply)		vcent		dary Indicators (2 or more required)
Wetland Hydromary Indica	rology Indicator ators (minimum o Vater (A1)		Water-Stain	ed Leaves (B9) (ex	ĸcept		ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydromath Primary Indication Surface V High Water	rology Indicator ators (minimum o Vater (A1) er Table (A2)		Water-Stain	ed Leaves (B9) (ex, 2, 4A, and 4B)	cept	w	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrometric Primary Indica Surface V High Water Saturation	rology Indicator ators (minimum o Vater (A1) er Table (A2) n (A3)		Water-Stain MLRA 1 Salt Crust (I	ed Leaves (B9) (ex , 2, 4A, and 4B) B11)	ĸcept	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Wetland Hydromatics Primary Indica Surface V High Wate Saturation Water Ma	rology Indicator ators (minimum o Vater (A1) er Table (A2) n (A3)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve	ed Leaves (B9) (ex , 2, 4A, and 4B) B11) ertebrates (B13)	ĸcept	W Dr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydromatics Primary Indica Surface V High Wate Saturation Water Ma	rology Indicator ators (minimum or Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve	ed Leaves (B9) (ex , 2, 4A, and 4B) B11)		W Dr Sa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
Wetland Hydromary Indicated Surface Volume Saturation Water Mater Mater Sediment Drift Deposits	rology Indicator ators (minimum or Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	ed Leaves (B9) (ex, 2, 4A, and 4B) B11) ertebrates (B13) culfide Odor (C1)	Living Root	W Dr Dr Sa Ss (C3) Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hydromary Indicated Surface Volume Saturation Water Mater Mater Sediment Drift Deposits	rology Indicator ators (minimum or Vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	ed Leaves (B9) (ex, 2, 4A, and 4B) B11) ertebrates (B13) ulfide Odor (C1) nizospheres along L	Living Root)	W Dr Dr Sa as (C3) Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9) ecomorphic Position (D2)
Wetland Hydroman Primary Indicated Surface Volume High Water Marker Mark	rology Indicator ators (minimum or Vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	ed Leaves (B9) (ex , 2, 4A, and 4B) B11) ertebrates (B13) culfide Odor (C1) nizospheres along L f Reduced Iron (C4	Living Root) I Soils (C6)	W Dr Dr Sa as (C3) Ge Sh FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3)
Wetland Hydromary Indicated Surface Volume Saturation Water Mater Material Surface Surface Surface Surface Material Mate	rology Indicator ators (minimum or Vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) Goil Cracks (B6) in Visible on Aeria	f one require	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expli	ed Leaves (B9) (ex , 2, 4A, and 4B) B11) ertebrates (B13) sulfide Odor (C1) nizospheres along L f Reduced Iron (C4 Reduction in Tilled	Living Root) I Soils (C6)	W Dr Dr Sa as (C3) GG Sh Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hydromary Indicated Surface Volume Saturation Water Mater Material Surface Surfa	rology Indicator ators (minimum or Vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) Soil Cracks (B6) in Visible on Aeria	f one require	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expli	ed Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B4) Reduced Iron (C4) Reduction in Tilled Stressed Plants (D1)	Living Root) I Soils (C6)	W Dr Dr Sa as (C3) GG Sh Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydroman Primary Indicated Surface Volume High Water Marker Mark	rology Indicator ators (minimum or Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) or Crust (B4) or Crust (B4) or Soil Cracks (B6) n Visible on Aeria Vegetated Conca	f one require al Imagery (E ave Surface (Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expl.	ed Leaves (B9) (ex., 2, 4A, and 4B) B11) Pertebrates (B13) Fulfide Odor (C1) Fizospheres along Leaves are along to the second are along to the second are along the second a	Living Root) I Soils (C6) (LRR A)	W Dr Dr Sa as (C3) GG Sh Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydromary Indicated Surface Valentian Saturation Water Margary Sediment Drift Deporation Deporation Surface Surface Surface Water Surface Surf	rology Indicator ators (minimum or Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) or I Cracks (B6) n Visible on Aeria Vegetated Conca ations: r Present?	al Imagery (Enve Surface	Water-Stain	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) Pertebrates (B13) Fulfide Odor (C1) Prizospheres along Leaves along Leaves (B13) Freduced Iron (C4) Reduction in Tilled (Btressed Plants (D1) Bain in Remarks) The server are the server along the server	Living Root) d Soils (C6) (LRR A)	W Dr Dr Sa as (C3) GG Sh Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydromary Indicated Surface Valent Deposition of Surface Surface Surface Surface Surface Water Table Friend Surface Water Table Friend Surface Water Surfac	rology Indicator ators (minimum or Vater (A1) er Table (A2) n (A3) arks (B1) c Deposits (B2) posits (B3) or Crust (B4) posits (B5) Goil Cracks (B6) n Visible on Aeria Vegetated Conca ations: r Present?	al Imagery (Enve Surface of Yes	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (Btressed Plants (D1) ain in Remarks) hes):	Living Root) d Soils (C6) 1) (LRR A)	W Dr Sa :s (C3) Ge Sh Ra Ra Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Wetland Hydromary Indicated Surface Value Saturation Water Mater Surface Surface Surface Water Table For Saturation Pressurface Mater Mat	rology Indicator ators (minimum or Vater (A1) er Table (A2) in (A3) arks (B1) c Deposits (B2) posits (B3) or Crust (B4) posits (B5) Soil Cracks (B6) in Visible on Aeria Vegetated Conca ations: r Present? esent?	al Imagery (Enve Surface of Yes	Water-Stain	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (Btressed Plants (D1) ain in Remarks) hes):	Living Root) d Soils (C6) 1) (LRR A)	W Dr Sa :s (C3) Ge Sh Ra Ra Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydromary Indicated Surface Vater Mater Table For Saturation Precipical Mater Mater Capital Mater Ma	rology Indicator ators (minimum or vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) or I Cracks (B6) in Visible on Aeria Vegetated Conca ations: r Present? Present? Present? Ilary fringe)	al Imagery (Enve Surface of YesYes	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (B1) Bit Remarks (D1) Bit Re	Living Root) I Soils (C6) (LRR A)	W Dr Sa ss (C3) Ga St FA Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Wetland Hydromary Indicated Surface Vater Mater Table For Saturation Precipical Mater Mater Capital Mater Ma	rology Indicator ators (minimum or vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) or I Cracks (B6) in Visible on Aeria Vegetated Conca ations: r Present? Present? Present? Ilary fringe)	al Imagery (Enve Surface of YesYes	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain (B8) No X Depth (inch No X Depth (inch	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (B1) Bit Remarks (D1) Bit Re	Living Root) I Soils (C6) (LRR A)	W Dr Sa ss (C3) Ga St FA Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Wetland Hydromary Indicated Surface Vater Mater Table For Saturation Precipical Mater Mater Capital Mater Ma	rology Indicator ators (minimum or vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) or I Cracks (B6) in Visible on Aeria Vegetated Conca ations: r Present? Present? Present? Ilary fringe)	al Imagery (Enve Surface of YesYes	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain (B8) No X Depth (inch No X Depth (inch	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (B1) Bit Remarks (D1) Bit Re	Living Root) I Soils (C6) (LRR A)	W Dr Sa ss (C3) Ga St FA Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Wetland Hydromary Indicated Surface Very High Water Marker	rology Indicator ators (minimum or vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) or I Cracks (B6) in Visible on Aeria Vegetated Conca ations: r Present? Present? Present? Ilary fringe)	al Imagery (Enve Surface of YesYes	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain (B8) No X Depth (inch No X Depth (inch	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (B1) Bit Remarks (D1) Bit Re	Living Root) I Soils (C6) (LRR A)	W Dr Sa ss (C3) Ga St FA Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Wetland Hydromary Indicated Surface Very High Water Marker	rology Indicator ators (minimum or vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) or I Cracks (B6) in Visible on Aeria Vegetated Conca ations: r Present? Present? Present? Ilary fringe)	al Imagery (Enve Surface of YesYes	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain (B8) No X Depth (inch No X Depth (inch	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (B1) Bit Remarks (D1) Bit Re	Living Root) I Soils (C6) (LRR A)	W Dr Sa ss (C3) Ga St FA Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Wetland Hydromary Indicated Surface Very High Water Marker	rology Indicator ators (minimum or vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) or I Cracks (B6) in Visible on Aeria Vegetated Conca ations: r Present? Present? Present? Ilary fringe)	al Imagery (Enve Surface of YesYes	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain (B8) No X Depth (inch No X Depth (inch	ned Leaves (B9) (ex., 2, 4A, and 4B) B11) ertebrates (B13) fulfide Odor (C1) hizospheres along Leaves (B13) f Reduced Iron (C4) Reduction in Tilled (B1) Bit Remarks (D1) Bit Re	Living Root) I Soils (C6) (LRR A)	W Dr Sa ss (C3) Ga St FA Fr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attration Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

Project/Site: Nisqually State Park		City/Co	unty: Pierce		Sampling Date: _1	10/31/2023
Applicant/Owner: WA State Parks				State: WA		
		Section	n, Township, Rai		. 0 =	
Landform (hillslope, terrace, etc.): Broad Depression					Slor	_{oe (%):} 1
Subregion (LRR):						
				NWI classific		
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation N, Soil N, or Hydrology N	•			Normal Circumstances"	•	No
Are Vegetation N, Soil N, or Hydrology N				eded, explain any answe		
SUMMARY OF FINDINGS – Attach site map						atures, etc.
Hydrophytic Vegetation Present? Yes X N						
Hydric Soil Present? Yes X			ls the Sampled within a Wetlar		No	
Wetland Hydrology Present? Yes X N	10		Within a Wethan	103		•
Remarks: No Outlets. Forded Wetland. Water depth 2 VEGETATION – Use scientific names of plan						
201	Absolute		nant Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30')	<u>% Cover</u> 20	<u>Speci</u> Y	es? Status FACW	Number of Dominant S		
1. FRLA Oregon Ash 2. ALRU Red Alder	- 20 10	<u>Y</u>	FAC	That Are OBL, FACW,	or FAC: 5	(A)
		<u> </u>		Total Number of Domir	_	(D)
3				Species Across All Stra	ita: <u> </u>	(B)
4	30	= Tota	al Cover	Percent of Dominant S That Are OBL, FACW,		(A/B)
1. PHCA II Pacific Ninebark	10	Υ	FAC	Prevalence Index wor	ksheet:	
2. ACCI Vine Maple	35	Y	FAC	Total % Cover of:		<u>/ by:</u>
3.					x 1 = 90	
4				FACW species 20	$x = \frac{40}{x \cdot 3} = \frac{40}{165}$	
5						_
	45	_ = Tota	l Cover	FACU species		
Herb Stratum (Plot size: 5' 1. CAOB3 Slough Sedge	90	Y	OBL	Column Totals: 165	(A) 295	(B)
2.						(-)
3.				Prevalence Index Hydrophytic Vegetation		
4.					Hydrophytic Vegeta	ation
5				2 - Dominance Tes		
6.				3 - Prevalence Ind		
7				4 - Morphological /		de supporting
8					s or on a separate	sheet)
9				5 - Wetland Non-V		
10				Problematic Hydro		
11				¹ Indicators of hydric so be present, unless dist		
Woody Vine Stratum (Plot size:)	90	_= Total	Cover	p. coont, amood dist		1
1				Lludrophytic		
2.				Hydrophytic Vegetation	V	
			Cover	Present? Ye	es <u>X</u> No	
% Bare Ground in Herb Stratum 10						
Remarks:						

SOIL Sampling Point: W3-SP1

	ription: (Describe	to the de	pth need				or confirm	n the absence	e of indicators.)
Depth (inches)	Matrix Color (moist)	%	Colo	Redox r (moist)	Features %	Type ¹	Loc ²	Texture	Remarks
0 - 6	10 YR 3/1	100		(IIIOISI)	70	1 ADC		Lo	Loam
6 -13	15 Y 5/1	- 75	10 YR	4/6		<u>C</u>		Cl, Si	·
						<u> </u>			
									. ———
									·
Type: C=Co	oncentration, D=De	nletion RM	I=Reduce	d Matrix CS		or Coate	ed Sand G	irains ² l.c	ocation: PL=Pore Lining, M=Matrix.
	ndicators: (Applic						ca Garia G		ors for Problematic Hydric Soils ³ :
Histosol	(A1)		Sar	ndy Redox (S	5)			2 c	m Muck (A10)
	pipedon (A2)			pped Matrix (,				d Parent Material (TF2)
Black His				my Mucky Mi			t MLRA 1)		ry Shallow Dark Surface (TF12)
	n Sulfide (A4)	(* 4 4)		my Gleyed M				Oth	ner (Explain in Remarks)
	l Below Dark Surfac ark Surface (A12)	ce (A11)		oleted Matrix dox Dark Surf				³ Indicat	ors of hydrophytic vegetation and
	lucky Mineral (S1)			leted Dark Sun		7)			and hydrology must be present,
	leyed Matrix (S4)			lox Depression		. ,			ess disturbed or problematic.
	ayer (if present):								·
Type: Ro	ots								
Depth (inc	ches): <u>13"</u>							Hydric Soi	il Present? Yes X No
Remarks:								L	
2" duff or	ntop of soil. F	Refusal	at roo	ts @ 13"					
HYDROLO	GY								
	drology Indicators	:							
_	ators (minimum of		ed: check	all that apply)			Seco	ondary Indicators (2 or more required)
	Water (A1)		.,	Water-Stain		es (B9) (e	except		Water-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			='	, 2, 4A, a				4A, and 4B)
Saturatio	. ,			Salt Crust (I		,		1	Drainage Patterns (B10)
Water M				Aquatic Inve		s (B13)		:	Dry-Season Water Table (C2)
Sedimer	it Deposits (B2)			Hydrogen S	u l fide Od	or (C1)		;	Saturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)			Oxidized R	nizospher	es a l ong	Living Ro	ots (C3)	Geomorphic Position (D2)
	t or Crust (B4)			Presence of	f Reduced	d Iron (C	4)	_ ;	Shallow Aquitard (D3)
	osits (B5)			Recent Iron					FAC-Neutral Test (D5)
	Soil Cracks (B6)			Stunted or \$			01) (LRR A		Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial			Other (Expl	aın ın Rer	marks)			Frost-Heave Hummocks (D7)
Field Observ	Vegetated Concav	e Surrace	(B6)						
		/ 00	No X	_ Depth (incl	200):				
Surface Water				_ Depth (incl _ Depth (incl					
Water Table				_ Depth (incl _ Depth (incl				اممط للبطيمام	gy Present? Yes X No
Saturation Pr (includes cap		res	NO /	_ Depth (inci	ies).		_ wei	iano nyorolog	gy Present? Yes X No
	corded Data (strean	n gauge, m	onitoring	well, aerial pl	notos, pre	vious ins	spections),	, if available:	
Remarks:									
Passed F	FAC Neutral	Γest							

Project/Site: Nisqually State Park		City/County	Pierce		Sampling Date: 10/30/2023
Applicant/Owner: WA State Parks					Sampling Point: W3-SP2
Investigator(s): Dominguez, Hearsey				nge:	
Landform (hillslope, terrace, etc.): Woodland Slope					oe Slope (%): <u>5</u>
Subregion (LRR):				• •	
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for					
Are Vegetation N , Soil N , or Hydrology N					resent? Yes X No
Are Vegetation N , Soil N , or Hydrology N				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site ma			`	-	·
Hydrophytic Vegetation Present? Yes X	No				
Hydric Soil Present? Yes	No X		e Sampled		No X
Wetland Hydrology Present? Yes	No <u>X</u>	With	in a Wetlar	nu? res	NO <u>^</u>
Remarks:					
VECETATION III and a district of the	l 4 -				
VEGETATION – Use scientific names of pl					
Tree Stratum (Plot size: 30'	Abso l ute % Cover	Dominant Species?		Dominance Test work Number of Dominant Sp	
1. THPL Red Cedar	70	Υ	FAC	That Are OBL, FACW,	
2. POBAZ Black Cottonwood	15	<u>Y</u>	FACW	Total Number of Domin	ant
3. PSME Douglas Fir	5	<u>N</u>	FACU	Species Across All Stra	•
4				Percent of Dominant Sp	pecies
Sapling/Shrub Stratum (Plot size: 15'	90	_ = Total Co	ver	That Are OBL, FACW, o	
1. ACCI Vine Maple	5	<u>Y</u>	FAC	Prevalence Index wor	
2. RVSP Salmonberry	5	Υ	FAC		Multiply by:
3.				-	x 1 =
4				FACW species 10 PAC species 95	x = 20 $x = 285$
5				FACU species 55	
Herb Stratum (Plot size: 5'	10	_ = Total Co	ver	· · · · · · · · · · · · · · · · · · ·	x 5 =
1 POMU Sword Fern	30	Υ	FACU	Column Totals: 160	
2. GASH Salal	20	Y	FACU	Prevalence Index	
3. RVUR Trailing Blackberry	5	N	FACU	Hydrophytic Vegetation	
4.				1	lydrophytic Vegetation
5				2 - Dominance Tes	
6				3 - Prevalence Inde	ex is ≤3.0 ¹
7				4 - Morphological A	daptations ¹ (Provide supporting
8				data in Remarks	s or on a separate sheet)
9					ohytic Vegetation¹ (Explain)
10				1 .	I and wetland hydrology must
11		= Total Cov		be present, unless distu	
Woody Vine Stratum (Plot size:)		Total Cov	i Ci		
1				Hydrophytic	
2				Vegetation Present? Yes	s ^X No
% Bare Ground in Herb Stratum 50		= Total Cov	er er		
70 Date Cround in Field Stratum					I I
Remarks:					
Remarks:					

SOIL Sampling Point: W3-SP2

		e to the dep	th needed to doc			or confirm	the absence	of indicators.)		
Depth	Matrix Color (moist)	%	Color (moist)	lox Feature: %	s <u>Type¹</u>	Loc ²	Texture	Remarks		
(inches) 0 - 7	7.5 YR 2/1	100	Color (moist)		Type	LUC	Si, Lo	Remarks		
7 -12	10 YR 5/3	_ 100					Si			
¹ Type: C=Co	oncentration, D=De	pletion, RM	=Reduced Matrix, 0	CS=Covered	d or Coate	ed Sand Gr	ains. ² Loc	ation: PL=Pore Lining, M	=Matrix.	
			LRRs, unless oth					rs for Problematic Hydri		
Histosol	(A1)		Sandy Redox	(S5)			2 cm	n Muck (A10)		
Histic Ep	pipedon (A2)		Stripped Matr	ix (S6)			Red	Parent Material (TF2)		
Black Hi			Loamy Mucky			MLRA 1)		Shallow Dark Surface (T	F12)	
	n Su l fide (A4)		Loamy Gleyed)		Othe	er (Explain in Remarks)		
	Below Dark Surfa	ce (A11)	Depleted Mat				3			
	ark Surface (A12)		Redox Dark S		-7\			rs of hydrophytic vegetation		
	lucky Mineral (S1) leyed Matrix (S4)		Depleted Dark		(7)			nd hydrology must be pres s disturbed or problematio		
	_ayer (if present):		Redux Deple	5510115 (1-0)			unies:	s disturbed or problematic		
Type: Ro										
Depth (inc							Hydric Soil	Present? Yes	No X	
Remarks:							Tiyane 30ii	Tresent: res		
Top 3" D	uff									
TOP 3 D	un									
HYDROLO	GY									
Wetland Hyd	drology Indicators									
=			d; check all that ap	n l v)			Secon	idary Indicators (2 or more	required)	
	Water (A1)			ained Leav	es (B9) (e	xcent		/ater-Stained Leaves (B9)		
	ter Table (A2)			4 1, 2, 4A, a		хоорг	_ ··	4A, and 4B)	(1112107 1, 2,	
Saturation			Salt Crus		a 4 .)		Dı	rainage Patterns (B10)		
	arks (B1)			nvertebrate	s (B13)			• , ,	:2)	
	nt Deposits (B2)		Hydroge				Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)			
_	posits (B3)		, ,		` '	Livina Roo	Coots (C3) Geomorphic Position (D2)			
	it or Crust (B4)			e of Reduce	_	_	—	hallow Aquitard (D3)		
	osits (B5)			ron Reducti			·	AC-Neutral Test (D5)		
	Soil Cracks (B6)			or Stressed			•	aised Ant Mounds (D6) (L	RR A)	
	on Visib l e on Aeria	I Imagery (B				., (=,	· 	rost-Heave Hummocks (D	•	
	Vegetated Conca			Apiani in i to	marke)		<u> </u>	oot Houve Hummooke (B	• /	
Field Obser		, o ounded (
Surface Wate		Vac	No X Depth (i	inches).						
Water Table			No X Depth (i							
								/ Present? Yes	Na X	
Saturation Proceed (includes cape	resent? pillary fringe)	res	No X Depth (i	inches):		_ wetta	ana Hyarology	/ Present? Tes	NO	
		m gauge, m	onitoring well, aeria	l photos, pr	evious ins	pections),	if available:			
Remarks:										

Project/Site: Nisqually State Park	c	ity/County:	Pierce		Sampling Date: 10/31/2023	
Applicant/Owner: WA State Parks				State: WA	Sampling Point: W4-SP1	
Investigator(s): Dominguez, Hearsey	S	Section, Tov	vnship, Rar	_{nge:} None		
					Slope (%): < 1	
Subregion (LRR):	_ Lat:			Long:	Datum:	
Soil Map Unit Name:				NWI classifica	ation:	
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes X	No	(If no, explain in Re	emarks.)	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} si	ignificant l y d	listurbed?	Are "	Normal Circumstances" pr	resent? Yes X No	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} na	aturally prob	lematic?	(If ne	eded, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	showing	sampling	j point lo	ocations, transects,	important features, etc.	
Hydrophytic Vegetation Present? Yes X No	o					
Hydric Soil Present? Yes X No			Sampled		No	
Wetland Hydrology Present? Yes X No	<u> </u>	Withi	n a Wetlan	id? Yes <u>//</u>	NO	
Remarks:						
VEGETATION – Use scientific names of plant	ts.					
20'		Dominant		Dominance Test works	sheet:	
	<u>% Cover</u> 15		Status FAC	Number of Dominant Sp		
1. THPL Western Red Cedar 2				That Are OBL, FACW, o	or FAC: 2 (A)	
3.				Total Number of Domina Species Across All Strat	0	
4.						
15!	15	= Total Cov	er	Percent of Dominant Sp That Are OBL, FACW, o		
Sapling/Shrub Stratum (Plot size: 15'				Prevalence Index work	sheet:	
1				Total % Cover of:		
2					x 1 = <u>30</u>	
4.				· · · · · · · · · · · · · · · · · · ·	x 2 =	
5.				·	x 3 = <u>45</u>	
	45	= Total Cov	er		x 4 =	
Herb Stratum (Plot size: 5'	30	Υ	OBL		x 5 = (A) 75 (B)	
1. CAOB3 Slough Sedge						
2				Prevalence Index		
3				Hydrophytic Vegetatio		
5				2 - Dominance Test	ydrophytic Vegetation	
6.				3 - Prevalence Inde		
7					daptations¹ (Provide supporting	
8.				data in Remarks	or on a separate sheet)	
9.				5 - Wetland Non-Va	scular Plants ¹	
10				Problematic Hydrop	hytic Vegetation ¹ (Explain)	
11				¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must	
Manchy Vina Charles (Diet sings -	30	= Total Cov	er	be present, unless distu	bed of problematic.	
Woody Vine Stratum (Plot size:)						
1 2	. ———			Hydrophytic Vegetation		
<u></u>	0 =	 = Total Cov	er	Present? Yes	s <u>X</u> No	
% Bare Ground in Herb Stratum 70		. 5131 550				
Remarks:	horn:					
Also in width: Beaked Hazelnut, salmon Outside plot: Sword fern on hummocks/	•					
Outside piot. Sword letti on hullimocks/	iogs.					

SOIL Sampling Point: W4-SP1

Depth	Description: (Describe to the depth needed to document the indicator or co			absence					
(inches)	Color (moist)		Color (mo	oist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 8	10 YR 2/2	100	· 					Lo	Loam
8 -14	2.5 Y 5/2	<u> </u>	7.5 YR 4/	<u>30</u>	0	<u>C</u>	<u>M</u>	Si, Lo	
			•	-					
	oncentration, D=D						ed Sand Gr		cation: PL=Pore Lining, M=Matrix.
-	Indicators: (App	olicable to al			e note	d.)			ors for Problematic Hydric Soils ³ :
Histosol	, ,			Redox (S5)	Α.				m Muck (A10)
	pipedon (A2) istic (A3)			l Matrix (S6 Mucky Mine		(evcen	· MI RA 1\		d Parent Material (TF2) ry Shallow Dark Surface (TF12)
	en Sulfide (A4)			Gleyed Matı		Схоср	t we in		ner (Explain in Remarks)
	d Below Dark Sur	face (A11)		d Matrix (F3					(
	ark Surface (A12)			Dark Surfac				³ Indicate	ors of hydrophytic vegetation and
	/Jucky Mineral (S1			d Dark Surf		')			and hydrology must be present,
	Gleyed Matrix (S4)		Redox [Depressions	s (F8)			unles	ss disturbed or problematic.
Restrictive Type: Ro	Layer (if present):							
									I Present? Yes X No
Depth (in Remarks:	ches): 14"							Hydric Soil	I Present? Yes <u>^</u> No
HYDROLO									
_	drology Indicato		المالة المماد مالية	at ample				C	and any landicators (2) on record and using di
	cators (minimum o	or one require			1100/0	o (DO) (o	waant		Indary Indicators (2 or more required)
	Water (A1) ater Table (A2)		· · · · · · · · · · · · · · · · · · ·	iter-Stained MLRA 1, 2			except	_^ v	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturati				It Crust (B1		iu 46)		Г	Orainage Patterns (B10)
	/larks (B1)			uatic Inverte		(B13)		·	Dry-Season Water Table (C2)
	nt Deposits (B2)			drogen Sulf					Saturation Visible on Aerial Imagery (C9)
	posits (B3)			-			Living Roo	· · · · · · · · · · · · · · · · · · ·	Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Pre	esence of R	educed	I Iron (C	4)	s	Shallow Aquitard (D3)
Iron De	oosits (B5)		Re	cent Iron Ro	eductio	n in Tille	d Soils (C6	6) <u>X</u> F	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stu	inted or Stre	essed F	Plants (D	1) (LRR A) F	Raised Ant Mounds (D6) (LRR A)
	ion Visib l e on Aeri			ner (Exp l ain	in Ren	narks)		F	Frost-Heave Hummocks (D7)
	y Vegetated Conc	ave Surface	(B8)						
Field Obser			V						
Surface Wat			No X Do						
Water Table			No X D						V
Saturation P	resent? pillary fringe)	Yes	No X D	epth (inches	s):		_ Wetl	and Hydrolog	gy Present? Yes X No
	corded Data (stre	am gauge, m	nonitoring well	aerial phot	tos, pre	vious ins	spections),	if available:	
		-							
Remarks:									

Project/Site: Nisqually State Park		City/County	Pierce		Sampling Date: 10/30/2023
Applicant/Owner: WA State Parks					Sampling Point: W4-SP2
Investigator(s): Dominguez, Hearsey				nge:	
					Slope (%): <u>1</u>
Subregion (LRR):					
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for th					
Are Vegetation N, Soil N, or Hydrology N	-				oresent? Yes X No
Are Vegetation N, Soil N, or Hydrology N				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map			•	-	·
Hydrophytic Vegetation Present? Yes	No <u>X</u>				
Hydric Soil Present? Yes			e Sampled		N. X
Wetland Hydrology Present? Yes	No <u>X</u>	With	in a Wetla	na? Yes	No X
Remarks:					
VECETATION . He are in this are a second of the	4-				
VEGETATION – Use scientific names of pla					
Tree Stratum (Plot size: 30'	Absolute % Cover	Dominant Species?		Dominance Test work	
1. THPL Red Cedar	95	Y	FAC	Number of Dominant S That Are OBL, FACW,	
2.				Total Number of Domir	
3				Species Across All Stra	4
4				Percent of Dominant S	necies
0 1 0 1 0 1 0 1 15'	95	_ = Total Co	ver	That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size: 15' 1. FRLA Oregon Ash	5	Υ	FACW	Prevalence Index wor	ksheet:
				Total % Cover of:	Multiply by:
2				OBL species	x 1 =
3 4				FACW species	x 2 =
5.					x 3 =
	5	_ = Total Co	ver		x 4 =
Herb Stratum (Plot size: 5'					x 5 =
1. GASH Salal	- 10	· Y	FACU FACU	Column Totals:	(A) (B)
2. POMU Sword Fern		· —			x = B/A =
3				Hydrophytic Vegetati	
4					Hydrophytic Vegetation
5 6				2 - Dominance Tes	
7.				3 - Prevalence Ind	ex is \$3.0 Adaptations ¹ (Provide supporting
8.				data in Remark	s or on a separate sheet)
9.				5 - Wetland Non-V	
10				Problematic Hydro	phytic Vegetation ¹ (Explain)
11.					il and wetland hydrology must
	20	_= Total Cov	er er	be present, unless dist	urbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2				Vegetation Present? Ye	es No X
% Bare Ground in Herb Stratum 80		_= Total Cov	rer		
Remarks:				ı	

SOIL Sampling Point: W4-SP2

Depth	Matrix								
(inches)	Color (moist)	%	Color (moist)	edox Feature: %	s _Type ¹ _	Loc²	Texture	Remarks	
0 - 4	10 YR 2/1	$-\frac{\frac{70}{100}}{100}$	Color (moist)		Type	LOC	Si, Lo	Remarks	
4 -14	10 YR 4/3	- 100	-				Si, Lo		
4-14	10 11 4/3	_ 100					31, L0		
		_							
-									
			M=Reduced Matrix			d Sand Gr		ation: PL=Pore Lining, M=Mat	
Hydric Soil II	ndicators: (Appli	icable to a	II LRRs, unless o	therwise note	ed.)			rs for Problematic Hydric Soi	ls³:
Histosol (Sandy Red					n Muck (A10)	
	ipedon (A2)		Stripped Ma		1) /	MI DA 4)		Parent Material (TF2)	
Black His	n Sulfide (A4)			ky Mineral (F1 /ed Matrix (F2		WLKA 1)		Shallow Dark Surface (TF12) er (Explain in Remarks)	
	Below Dark Surfa	re (Δ11)	Depleted M)		Otile	er (Explain in Nemarks)	
	rk Surface (A12)	(/ (/ ())		Surface (F6)			³ Indicato	rs of hydrophytic vegetation and	ı
	ucky Mineral (S1)			ark Surface (F	7)			nd hydrology must be present,	
	leyed Matrix (S4)			ressions (F8)			unles	s disturbed or problematic.	
Restrictive L	ayer (if present):								
Туре:									
Depth (inc	hes):						Hydric Soil	Present? Yes No	<u> </u>
Remarks:							-		
1" Duff									
	~v								
HYDROLOG									
Wetland Hyd	rology Indicators								
Wetland Hyd	Irology Indicators ators (minimum of		ed; check all that a					idary Indicators (2 or more requ	
Wetland Hyd Primary Indica Surface V	Irology Indicators ators (minimum of Water (A1)		Water-	-Stained Leav	, , ,	xcept		ater-Stained Leaves (B9) (MLF	
Wetland Hyd Primary Indica Surface V High Wat	Irology Indicators ators (minimum of Water (A1) ter Table (A2)		Water- M L	-Stained Leave RA 1, 2, 4A, a	, , ,	xcept	w	/ater-Stained Leaves (B9) (MLF	
Wetland Hyd Primary Indica Surface V High Wat Saturatio	Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3)		Water- M L Salt C	-Stained Leave RA 1, 2, 4A, a rust (B11)	and 4B)	xcept	N	/ater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10)	
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma	Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1)		Water- M L Salt Co Aquati	-Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate	and 4B) s (B13)	xcept	W	/ater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)	A 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment	Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)		Water- M L Salt C Aquati Hydrog	-Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Od	and 4B) s (B13) dor (C1)	·	W D D S:	/ater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag	A 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo	Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)		Water- ML Salt Ci Aquati Hydrog Oxidiz	-Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe	s (B13) dor (C1) res along	Living Roo	W D D S St ots (C3) G	/ater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2)	A 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo	Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		Water- ML Salt C Aquati Hydro Oxidiz Preser	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce	s (B13) dor (C1) res along	Living Roo I)	W D S; ots (C3) G S	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3)	A 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo	Irology Indicators ators (minimum of Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)		Water- ML Salt Ci Aquati Hydrog Oxidiz Preser Recen	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti	s (B13) dor (C1) res along d Iron (C4 on in Tilled	Living Roo I) d Soils (C6		Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)	AA 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6)	one requir	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed	s (B13) dor (C1) res along d Iron (C4 on in Tilled	Living Roo I) d Soils (C6	D D Si Si Si Fi	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	AA 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria	one requir	Water-	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti	s (B13) dor (C1) res along d Iron (C4 on in Tilled	Living Roo I) d Soils (C6	D D Si Si Si Fi	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)	AA 1, 2,
Wetland Hyd Primary Indica Surface N High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca	one requir	Water-	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed	s (B13) dor (C1) res along d Iron (C4 on in Tilled	Living Roo I) d Soils (C6	D D Si Si Si Fi	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	AA 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca	one requir	— Water- ML — Salt C — Aquati — Hydrog — Oxidiz — Preser — Recen — Stunte B7) — Other (B8)	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D	Living Roo I) d Soils (C6 1) (LRR A)	D D Si Si Si Fi	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	AA 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca	I Imagery (ve Surface	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) Mo X Depth	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D	Living Roo I) d Soils (C6 1) (LRR A)	D D Si Si Si Fi	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	AA 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table F	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca rations: er Present?	I Imagery (ve Surface Yes Yes	Water- ML Salt Cr Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) Depth No X Depth Dept	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo 4) d Soils (C6 1) (LRR A)	W D Si ots (C3) G Si Fi Fi	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	ery (C9)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Water Table F Saturation Pre	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca rations: er Present? Present?	I Imagery (ve Surface Yes Yes	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) Mo X Depth	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo 4) d Soils (C6 1) (LRR A)	W D Si ots (C3) G Si Fi Fi	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	ery (C9)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table F Saturation Pro (includes cap	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present? esent? esent?	I Imagery (ve Surface Yes Yes Yes	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) No X Depth No X Depth No X Depth Depth	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo Soils (C6 Carry (C6 LRR A) Wetla	W D Si Si Si Fi Fi and Hydrology	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	EA 1, 2,
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table F Saturation Pro (includes cap	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present? esent? esent?	I Imagery (ve Surface Yes Yes Yes	Water- ML Salt Cr Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) Depth No X Depth Dept	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo Soils (C6 Carry (C6 LRR A) Wetla	W D Si Si Si Fi Fi and Hydrology	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	ery (C9)
Wetland Hyde Primary Indica Surface V High Water Ma Sediment Drift Depo Algal Mate Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table F Saturation Pro (includes cap) Describe Rec	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present? esent? esent?	I Imagery (ve Surface Yes Yes Yes	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) No X Depth No X Depth No X Depth Depth	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo Soils (C6 Carry (C6) LRR A	W D Si Si Si Fi Fi and Hydrology	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	ery (C9)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table F Saturation Pro (includes cap	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present? esent? esent?	I Imagery (ve Surface Yes Yes Yes	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) No X Depth No X Depth No X Depth Depth	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo Soils (C6 Carry (C6) LRR A	W D Si Si Si Fi Fi and Hydrology	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	ery (C9)
Wetland Hyde Primary Indica Surface V High Water Ma Sediment Drift Depo Algal Mate Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table F Saturation Pro (includes cap) Describe Rec	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present? esent? esent?	I Imagery (ve Surface Yes Yes Yes	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) No X Depth No X Depth No X Depth Depth	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo Soils (C6 Carry (C6) LRR A	W D Si Si Si Fi Fi and Hydrology	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	ery (C9)
Wetland Hyde Primary Indica Surface V High Water Ma Sediment Drift Depo Algal Mate Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table F Saturation Pro (includes cap) Describe Rec	Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present? esent? esent?	I Imagery (ve Surface Yes Yes Yes	Water- ML Salt C Aquati Hydrog Oxidiz Preser Recen Stunte B7) Other (B8) No X Depth No X Depth No X Depth Depth	Stained Leave RA 1, 2, 4A, a rust (B11) c Invertebrate gen Sulfide Oc ed Rhizosphe nce of Reduce t Iron Reducti d or Stressed (Explain in Re	s (B13) dor (C1) res along d Iron (C4 on in Tilled Plants (D marks)	Living Roo Soils (C6 Carry (C6) LRR A	W D Si Si Si Fi Fi and Hydrology	Vater-Stained Leaves (B9) (MLF 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imag eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	ery (C9)

policant/Owner, WA State Parks vestglaor(s); Dominguez, Allen section, Township, Range: Local relief (concave, convex, none); Concave slope (%); Depression Local relief (concave, convex, none); Concave slope (%); Depression ubregion (LRR); Lat: Long: NWI dissistincation: reclimatic hydrologic conditions on the site typical for this time of year? Yes	Project/Site: Nisqually State Park			City/Co	ounty:	Pierce		Sampling Date: 12	2/21/2023
Local relief (concave, convex, none): Concave Slope (16): 0	Applicant/Owner: WA State Parks								
Local relief (concave, convex, none): Concave Slope (16): 0	Investigator(s): Dominguez, Allen								
re climate/ hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) re Vegetation Soil or Hydrology significantly disturbed?									e (%): 0
re climate/ hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) re Vegetation Soil or Hydrology significantly disturbed?	Subregion (LRR):		Lat:				Long:	Datum	:
re climatic / hydrologic conditions on the site typical for this time of year? Yes									
Are *Normal Circumstances* present? Yes X No									
Wedestation									No
Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Wetland Present Stratum (Plot size:									
Is the Sampled Area Wetland Hydrology Present? Yes X No									tures, etc.
Wetland Hydrology Present? Yes No	Hydrophytic Vegetation Present?	Yes X	No						
### Remarks: Factor Percent of Dominant Species Factor Fa	Hydric Soil Present?							M -	
Absolute Dominant Indicator Species? Status Sta	Wetland Hydrology Present?	Yes X	No		withii	n a Wetlar	1d? Yes <u>^ </u>	No	
Absolute Species Status Species Status Species Status Species Status Species Status Status Species Status Specie	Remarks:								
Absolute Species Status									
Absolute Species Status									
Number of Dominant Species That Are OBL, FACW, or FAC: (A)	VEGETATION – Use scientific	names of pla	ants.						
11	Tree Stratum (Plot size:	1							
Total Number of Dominant Species Across All Strata:									(A)
Saplina/Shrub Stratum (Plot size: 15')									(','
Sapling/Shrub Stratum (Plot size: 15'									(B)
Sapling/Shrub Stratum (Plot size: 15' 15								<u></u>	(=)
Sapling/Shrub Stratum (Plot size: 15 15				_ = Tota	al Cov	er			(A/B)
2 ACCI Vine Maple 30	Sapling/Shrub Stratum (Plot size: 15)	45			-		·	
OBL species x 1 =							Total % Cover of:	Multiply !	by:
4	<u>-</u>					_	OBL species	x 1 =	
A					<u> </u>		FACW species	x 2 =	
Herb Stratum (Plot size: 5'							FAC species	x 3 =	
Herb Stratum (Plot size: 5'	5		45	= Tot	al Cov		FACU species	x 4 =	
2. PHAR3 Reed Canary Grass 30 FACW OBL Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 11. 65 = Total Cover Total Cover Total Cover Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 - Problematic Hydrophytic Vegetation¹ (Explain) 1 - Problematic Hydrophytic Stratum (Plot size:	Herb Stratum (Plot size: 5')		1016	ai Cov	GI	UPL species	x 5 =	
DESA Water Parsley 10	1. CAOB3 Slough Sedge		25				Column Totals:	(A)	(B)
A							Prevalence Index	= B/A =	
5	3. OESA Water Parsley		10	·		OBL	Hydrophytic Vegetation	on Indicators:	
3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 11. 65 = Total Cover 11. 65 = Total Cover 12. 13 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.							1 - Rapid Test for H	lydrophytic Vegetat	ion
7									
8 data in Remarks or on a separate sheet) 9 5 - Wetland Non-Vascular Plants¹ 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 11 65= Total Cover Woody Vine Stratum (Plot size:)									
9 5 - Wetland Non-Vascular Plants¹ 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Woody Vine Stratum (Plot size:)									
10 Problematic Hydrophytic Vegetation¹ (Explain) 11 65= Total Cover Woody Vine Stratum (Plot size:) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.								•	neet)
11									Explain)
Woody Vine Stratum (Plot size:) 65 = Total Cover be present, unless disturbed or problematic.									
Woody Vine Stratum (Plot size:)			— 65		al Cove				
1 Under the Co	Woody Vine Stratum (Plot size: -)		10ta	OOV	21			
· нудгорпутіс	1						Hydrophytic		
2 Vegetation	2							o No	
O = Total Cover Present? Yes No	0/ Boro Cround in U. d. Christian 40		0	_= Tota	al Cove	er	Fresent 16	» NO	_
	% Bare Ground in Herb Stratum 40 Remarks:								
	. Comano.								

SOIL Sampling Point: W5-SP1

Depth	<u>Matri</u>	Κ	h needed to document the indicator o Redox Features			
(inches)	Color (moist)		Color (moist) % Type ¹	Loc ²	Texture	Remarks
0 - 16	7.5 YR 2/1	<u> </u>			Si	Mucky
	-					
			Reduced Matrix, CS=Covered or Coated	d Sand Grai		cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	olicable to all l	_RRs, unless otherwise noted.)		Indicato	ors for Problematic Hydric Soils³:
Histosol	, ,	-	Sandy Redox (S5)			n Muck (A10)
	pipedon (A2)	-	Stripped Matrix (S6)	MLDA 4)		Parent Material (TF2)
	istic (A3) en Sulfide (A4)	•	Loamy Mucky Mineral (F1) (except Loamy Gleyed Matrix (F2)	WILKA I)		y Shallow Dark Surface (TF12) er (Explain in Remarks)
	d Below Dark Sur	face (A11)	Depleted Matrix (F3)		0	or (Explain in Normano)
	ark Surface (A12)		Redox Dark Surface (F6)		³ Indicato	ors of hydrophytic vegetation and
	/Jucky Mineral (S1	,	X Depleted Dark Surface (F7)		wetla	nd hydrology must be present,
	Gleyed Matrix (S4)		Redox Depressions (F8)		unles	s disturbed or problematic.
	Layer (if present):				
Type:						X
Depth (in Remarks:	ches):				Hydric Soil	Present? Yes X No
HYDROLO Wetland Hy	GY drology Indicato	rs:				
Primary Indi	cators (minimum o	of one required	; check all that apply)		<u>Secor</u>	ndary Indicators (2 or more required)
Surface	Water (A1)		Water-Stained Leaves (B9) (ex	xcept	v	Vater-Stained Leaves (B9) (MLRA 1, 2,
	ater Tab l e (A2)		MLRA 1, 2, 4A, and 4B)			4A, and 4B)
X Saturati			Salt Crust (B11)		·	rainage Patterns (B10)
	larks (B1)		Aquatic Invertebrates (B13)			ry-Season Water Table (C2)
	nt Deposits (B2)		X Hydrogen Sulfide Odor (C1)			aturation Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized Rhizospheres along L	-		
Algai Ma	at or Crust (B4)		Presence of Reduced Iron (C4)Recent Iron Reduction in Tilled	•		hallow Aquitard (D3) AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or Stressed Plants (D1			aised Ant Mounds (D6) (LRR A)
	ion Visible on Aeri	al Imagery (B7		1) (LIXIX A)		rost-Heave Hummocks (D7)
	y Vegetated Conc				<u> </u>	real freate frammedite (21)
Field Obser		_				
Surface Wat	ter Present?	Yes N	No X Depth (inches):			
Water Table	Present?	Yes X	lo Depth (inches): 3	_		
Saturation P	resent?		lo Depth (inches): 0	 Wetlan	d Hydrolog	y Present? Yes X No
(includes ca	pillary fringe)	<u> </u>				
Describe Re	coraed Data (stre	am gauge, mo	nitoring well, aerial photos, previous insp	pections), if a	avallable:	
Domester						
Remarks:	water in adja	acent non	4			
Juliace	water in auj	accin poin				

Project/Site: Nisqually State Park		City/Co	ounty:	Pierce		Sampling Date:	12/21/2023
Applicant/Owner: WA State Parks					State: WA		
Investigator(s): Dominguez, Allen							
- ' ' '					convex, none): Conc	ave SI	lope (%): 3
Subregion (LRR):							
Soil Map Unit Name:							
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation N, Soil N, or Hydrology N	•					•	No
Are Vegetation N, Soil N, or Hydrology N					eeded, explain any an		
SUMMARY OF FINDINGS – Attach site ma				•		·	eatures, etc.
Hydrophytic Vegetation Present? Yes	No X						
Hydric Soil Present? Yes	No <u>X</u>			Sampled		(No	
Wetland Hydrology Present? Yes	No <u>X</u>		Within	n a Wetlar	iur res <u>~</u>	<u> NO</u>	_
Remarks:							
VECTATION III a scientific normal of all							
VEGETATION – Use scientific names of pl		<u> </u>			I De este e e e Tour		
Tree Stratum (Plot size: 30'	Absolute <u>% Cover</u>				Dominance Test w		
1. ALMA Big Leaf Maple	25			FACU	Number of Dominar That Are OBL, FAC		(A)
2. ALRU Red ALder	10			FAC	Total Number of Do	minant	
3					Species Across All		(B)
4					Percent of Dominar	nt Species	
Sapling/Shrub Stratum (Plot size: 15'	35	_ = Tota	al Cov	er	That Are OBL, FAC		(A/B)
1. RUSP Salmonberry				FAC	Prevalence Index v	worksheet:	
2.						of: Multip	
3.						x 1 =	
4						x 2 =	
5						x 3 = x 4 =	
5'		_ = Tota	al Cov	er			
Herb Stratum (Plot size: 5' 1. PHAR3 Reed Canary Grass	50	Υ		FACW		(A)	
2 RUUR Trailing Blackberry	— 55 —	<u> </u>		FACU			
3 POMU Sword Fern	25			FACU		dex = B/A =	
4					Hydrophytic Veget	tation indicators: for Hydrophytic Vege	otation
5					2 - Dominance		station
6.					3 - Prevalence		
7						cal Adaptations ¹ (Pro	ovide supporting
8					data in Rem	narks or on a separat	te sheet)
9					5 - Wetland No		4
10						drophytic Vegetation	
11						soil and wetland hy disturbed or problem	
Woody Vine Stratum (Plot size:)	90	_= Total	I Cove	er e	Do process, assess		
1					Uvdvanhvtia		
2					Hydrophytic Vegetation		
	_	= Total	I Cove	 er	Present?	Yes No _	
% Bare Ground in Herb Stratum 10							
Remarks: Moss on hare ground 75%							
Moss on bare ground 75%							

SOIL Sampling Point: W5-SP2

Profile Desc	ription: (Describ	e to the dep	oth needed to doo	ument the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix			dox Feature:		. 2	-		
(inches)	Color (moist)		Color (moist)		Type ¹	Loc ²	<u>Texture</u>	Remarks	<u>. </u>
<u>0 - 16</u>	10 YR 3/2	_ 100					Lo		
	-		=						
									_
								-	
¹ Type: C=Co	oncentration, D=De	ep l etion, RM	=Reduced Matrix,	CS=Covered	d or Coate	ed Sand Gra	ains. ² Loc	ation: PL=Pore Lining,	M=Matrix.
Hydric Soil	Indicators: (Appl	icable to all	LRRs, unless otl	nerwise not	ed.)		Indicato	rs for Problematic Hyd	dric Soils³:
Histosol	(A1)		Sandy Redox	(S5)			2 cm	n Muck (A10)	
Histic Ep	oipedon (A2)		Stripped Mat	rix (S6)			Red	Parent Material (TF2)	
Black Hi	stic (A3)		Loamy Muck			MLRA 1)		Shallow Dark Surface	(TF12)
	n Sulfide (A4)		Loamy Gleye)		Othe	er (Exp l ain in Remarks)	
	d Below Dark Surfa	ace (A11)	Depleted Ma				2		
_	ark Surface (A12)		Redox Dark	. ,				rs of hydrophytic vegeta	
	lucky Mineral (S1)		Depleted Da		7)			nd hydrology must be p	
	Bleyed Matrix (S4)		Redox Depre	essions (F8)			unless	s disturbed or prob l ema	tic.
	_ayer (if present):								
Type:									Y
Depth (in	ches):						Hydric Soil	Present? Yes	No X
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators	s:							
Primary India	cators (minimum of	one require	d; check all that ar	(ylgo			<u>Secon</u>	dary Indicators (2 or mo	ore required)
Surface	Water (A1)		Water-S	Stained Leave	es (B9) (e	xcept	w	/ater-Stained Leaves (B	9) (MLRA 1, 2,
High Wa	iter Tab l e (A2)		MLR	A 1, 2, 4A, a	nd 4B)			4A, and 4B)	
Saturation	on (A3)		Salt Crւ	ıst (B11)			Dı	rainage Patterns (B10)	
Water M	arks (B1)		Aquatic	Invertebrate	s (B13)		Dı	ry-Season Water Tab l e	(C2)
	nt Deposits (B2)			en Su l fide Od				aturation Visib l e on Aeri	
Drift Dep	oosits (B3)		Oxidize	d Rhizosphe	res a l ong	Living Roo	ts (C3) G	eomorphic Position (D2)
-	at or Crust (B4)			ce of Reduce	-	_	—	hallow Aquitard (D3)	•
Iron Dep	osits (B5)			Iron Reducti			·	AC-Neutral Test (D5)	
	Soil Cracks (B6)			or Stressed			•	aised Ant Mounds (D6)	(LRR A)
	on Visib l e on Aeria	I Imagery (B				, , ,		rost-Heave Hummocks	(D7)
	Vegetated Conca			•	,				,
Field Obser			· /						
Surface Water		Yes	No X Depth	(inches):					
Water Table			No X Depth						
								D (0.)	X
Saturation Projection (includes cap	resent? oillary fringe)	Yes	No X Depth	(inches):		_ wetia	ana Hyarology	Present? Yes	No <u>^</u>
	corded Data (strea	m gauge, m	onitoring well, aeri	al photos, pr	evious ins	pections), i	if available:		
	`		,			• /-			
Remarks:									
rtomanto.									

Project/Site: Nisqually State Park		City/Co	unty: Pierce		Sampling Da	ate: 11/1/2023	
Applicant/Owner: WA State Parks				State: WA	Sampling Po	oint: W6-SP1	
Investigator(s): Dominguez, Hearsey			, Township, R				
Landform (hillslope, terrace, etc.): Small Depression					ţ	Slope (%): < 1	
Subregion (LRR):	Lat:			Long:	「	Datum:	
Soil Map Unit Name:				NWI classific	ation:		
Are climatic / hydrologic conditions on the site typical for t	this time of yea	ar? Yes	s <u>X</u> No _	(If no, explain in R	emarks.)		
Are Vegetation N , Soil N , or Hydrology N	_significantly	disturbe	ed? Are	"Normal Circumstances" p	oresent? Yes	3 <u>X</u> No	
Are Vegetation N , Soil N , or Hydrology N	_ naturally pro	blemati	c? (If n	needed, explain any answe	rs in Remarks	3.)	
SUMMARY OF FINDINGS – Attach site ma	p showing	samp	ling point	locations, transects	, importar	ıt features, e	etc.
Hydrophytic Vegetation Present? Yes X			J				
Hydric Soil Present? Yes X		I	s the Sample				
Wetland Hydrology Present? Yes X	No	١ ا	within a Wetla	ınd? Yes 🔨	No		
Remarks:							
VEGETATION – Use scientific names of pla							
Tree Stratum (Plot size: 30'			nant Indicator es? Status				
1				Number of Dominant S That Are OBL, FACW,		(A)	1
2						(1)	
3				Total Number of DominSpecies Across All Stra		(B))
4						、,	
15'	-	_ = Tota	l Cover	Percent of Dominant Sp That Are OBL, FACW,		(A/	'B)
Sapling/Shrub Stratum (Plot size: 15'				Prevalence Index wor	ksheet:		
1				Total % Cover of:	M	ultiply by:	
2				OBL species 15	x 1 =	15	
3 4				FACW species	x 2 =		
5				FAC species			
S	_		Cover	FACU species			
Herb Stratum (Plot size: 5')	_	-			x 5 =		
1. CAOB3 Slough Sedge	15	<u>Y</u>	OBL	Column Totals: 15	(A)	(E	3)
2				Prevalence Index	= B/A = 1		
3				. Hydrophytic Vegetation	on Indicators	;:	
4				. 1 - Rapid Test for H		egetation	
5				. 👱 2 - Dominance Tes			
6							
7				. 4 - Morphological <i>F</i> data in Remarks	\daptations' (Provide supporti	ing
8				5 - Wetland Non-V	=	•	
9				Problematic Hydro			
10				Indicators of hydric soi			
11	4 =	= Total	Cover	be present, unless distu			
Woody Vine Stratum (Plot size:)		_ 10101	00101				
1				. Hydrophytic			
2				Vegetation Present? Ye	s <u>X</u> N	la.	
% Bare Ground in Herb Stratum 85	0	_= Total	Cover	riescill Te	s <u>···</u> N		
Remarks:							

SOIL Sampling Point: W6-SP1

Depth	cription: (Descri <u>Matri</u>	х		Redox Featur	es			,
(inches)	Color (moist)		Color (mois	st) %	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 9	10 YR 3/1	100	· 				Lo	Loam
9 -16	2.5 Y 5/2	70	10 YR 5/6	30	_ <u>C</u>	_ <u>M</u>	Si, Lo	
						_		
	-			-	_			
	-				_			
					_			
	oncentration, D=I					ted Sand G		cation: PL=Pore Lining, M=Matrix.
-	Indicators: (App	olicable to a			ted.)			ors for Problematic Hydric Soils ³ :
Histoso			Sandy Re					m Muck (A10)
	pipedon (A2) listic (A3)			Matrix (S6) ucky Mineral (F	=1) (evce	nt MIRA 1)		d Parent Material (TF2) y Shallow Dark Surface (TF12)
	en Sulfide (A4)			eyed Matrix (F		pt wicks 1)		er (Explain in Remarks)
Depleted Below Dark Surface (A11) X Depleted Matrix (F3)							3	
Thick Dark Surface (A12) Redox Dark Surface (F6)							³ Indicate	ors of hydrophytic vegetation and
Sandy Mucky Mineral (S1) — Depleted Dark Surface (F7)								and hydrology must be present,
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present):							unle	ss disturbed or problematic.
		•						
Type:			 -					X
Depth (in Remarks:	icnes):						Hydric Soi	Present? Yes X No
HYDROLC	OGY drology Indicato	ore:						
-	cators (minimum		ed: check all tha	t apply)			Seco	ndary Indicators (2 or more required)
-	Water (A1)			er-Stained Lea	ves (B9) (except		Vater-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)		·	ILRA 1, 2, 4A,		•	_	4A, and 4B)
Saturati	ion (A3)		Salt	Crust (B11)			[Orainage Patterns (B10)
Water N	/larks (B1)		Aqua	atic Invertebrat	es (B13)		<u>X</u> [Dry-Season Water Table (C2)
Sedime	nt Deposits (B2)		Hydi	ogen Su l fide (Odor (C1)		_ 5	Saturation Visible on Aerial Imagery (C9)
Drift De	posits (B3)					-	ots (C3) (Geomorphic Position (D2)
	at or Crust (B4)			ence of Reduc	•	•		Shallow Aquitard (D3)
Iron De			·	ent Iron Reduc		•		FAC-Neutral Test (D5)
	Soil Cracks (B6)	:-! ! //		ted or Stresse		D1) (LRR A		Raised Ant Mounds (D6) (LRR A)
	ion Visib l e on Aer y Vegetated Cond			r (Explain in R	emarks)		_ '	Frost-Heave Hummocks (D7)
Field Obser	<u> </u>	Save Suriace	(50)					
	ter Present?	Yes	No X Dep	oth (inches):				
Water Table Present? Yes No $\frac{X}{X}$ Depth (inches): Saturation Present? Yes No $\frac{X}{X}$ Depth (inches): No $\frac{X}{X}$ Depth (inch							land Hydrolog	y Present? Yes X No
(includes ca	Saturation Present? Yes No Depth (inches): V (includes capillary fringe)							
Describe Re	ecorded Data (stre	am gauge, n	nonitorin <mark>g well, a</mark>	eria l photos, p	revious ir	nspections),	, if available:	
Remarks:								
ı								

	Project/Site: Nisqually State Park			City/Co	unty: Pierce		Sampling Date: <u>11/1/2023</u>
Landform (hillslope, terrace, etc.): Hillslope Left Long Concave, convex, none): Slope (%): 6	Applicant/Owner: WA State Parks						
Landform (hillslope, terrace, etc.): Hillslope Lat: Long Datum: Subregion (LRR): Lat: Long Massification. Are similatic / 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 (If no, explain in Remarks). Are Vegetation N Soil N or Hydrology N anaturally problematic? (If 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 X Is the Sampled Area within a Wetland? Yes No X Vestand hydrology Present? Yes No X Vestand hydrology Present Yes No X Vestand hydrology Present. Yes No X Vestand h	Investigator(s): Dominguez, Hearse	ey					
Lat							Slope (%): <u>6</u>
No No No No No No No No No No No No No No No No No No No No No No No No No No No							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X							
Are Vegetation N							
Summary Soil No Or Hydrology No Naturally problematic Off needed, explain any answers in Remarks.							
Summary Findings - Attach site map showing sampling point locations, transects, important features, etc.							
Is the Sampled Area Ves No X							
Is the Sampled Area Ves No X	Hydrophytic Vegetation Present?	Yes	No X				
VEGETATION - Use scientific names of plants. Tree Stratum (Plot size; 30' % Cover % Cove	Hydric Soil Present?	Yes	No <u>X</u>				Y
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30') Absolute %2 cover 50 yescles? Status 1, THPL Red Cedar 50 y FAC 2. FRLA Oregon Ash 2. N FAC 3. POBAZ Black Cottonwood 4. N FAC 4. ALRU Red Alder 5. N FAC 4. ALRU Red Alder 5. N FAC	Wetland Hydrology Present?	Yes	No <u>X</u>		within a Wetlar	nd? Yes	No <u>^</u>
Absolute	Remarks:						
Absolute							
Absolute							
Tree Stratum (Plot size: 30° % Cover Species? Slatus Number of Dominant Species 1 (A)	VEGETATION – Use scientific	c names of pla					
THPL Red Cedar 50 Y FAC 2 N FACW 50	Tree Stratum (Plot size: 30')					
2. FRLA Oregon Ash 2 N FACW 3. POBAZ Black Cottonwood 4 N FAC 4. ALRU Red Alder 5 N FAC 61 =Total Cover Total Number of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B) 2. RONU Noolka Rose 4 N FAC 2. RONU Noolka Rose 4 N FAC 3. RVSP Salmonberry 10 N FAC 4. Stratum (Plot size: 5') B4 = Total Cover 1. GASH Salal 2 N FAC 2. MARQ Oregon Grape 25 Y UPL 3. POMU Sword Fern 30 Y FACU 4		/					or FAC: 1 (A)
ALRU Red Alder	2. FRLA Oregon Ash		2	N	FACW		
ALRU Red Alder 5	3. POBAZ Black Cottonwood		4	N	FAC		
Sabling/Shrub Stratum (Plot size: 15' 70 Y FACU Prevalence Index worksheet:	4. ALRU Red Alder		5	<u>N</u>	<u>FAC</u>	Porcent of Dominant S	
1. CCC06 Beaked Hazelnut 2. RONU Nootka Roses 3. RVSP Salmonberry 4.	1	5' ·	61	_ = Tota	al Cover		
2. RONU Noolka Rose 4 N FAC 3. RVSP Salmonberry 10 N FAC 4)	70	V	FΔCII	Prevalence Index wo	rksheet:
Section Sect						Total % Cover of:	Multiply by:
4						OBL species	x 1 =
Section Stratum Plot size: 5' Section	-					FACW species	x 2 =
Herb Stratum (Plot size: 5'	5.					1	
Herb Stratum (Plot size: 5'			84	= Tota	al Cover		
2. MAAQ Oregon Grape 25 Y UPL Prevalence Index = B/A =)		_		1	
30 Y FACU Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 9 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 10 - 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Woody Vine Stratum (Plot size:						Column Lotals:	(A) (B)
4				· —			
5				· 			
6						-	
7							
8						1	
9							
10						5 - Wetland Non-V	/ascular Plants ¹
11						Problematic Hydro	phytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:)							
1			57	_= Tota	I Cover	be present, unless dist	urbed or problematic.
2 = Total Cover Vegetation Present? Yes No X No X Remarks:							
% Bare Ground in Herb Stratum 32 Present? Yes No X Remarks:							
% Bare Ground in Herb Stratum 32 Remarks:	Z				L Cover	Present? Ye	es No X
Remarks:	% Bare Ground in Herb Stratum 32			rota	i Covei		
Moss Present	Remarks:					1	
	Moss Present						

SOIL Sampling Point: W6-SP2

	ription: (Describe	e to the dep				or confirm	the absence	of indicators.)	
Depth	Matrix Color (moist)	%	Color (moist	Redox Feature) %	s Type ¹	Loc ²	Texture	Remark	/e
(inches) 0 - 2	10 YR 3/2	100	COIOI (IIIOISI) 70	<u>i ype</u>	LUC	Si, Lo	reinark	/2
2 -16	10 YR 4/3	100					Sa, Lo		
2-10	10 11 4/3	_ 100					<u>Sa, Lu</u>		
	oncentration, D=De					ed Sand Gr		ation: PL=Pore Lining	
-	ndicators: (Appli	cable to all			ed.)			rs for Problematic Hy	ydric Soils":
Histosol	. ,		Sandy Rec					Muck (A10)	
Histic Ep	nipedon (A2)		Stripped M	atrix (S6) cky Mineral (F	1) (evcent	MI PA 1)		Parent Material (TF2) Shallow Dark Surface	
	n Sulfide (A4)			yed Matrix (F2		I WILIXA I)		er (Exp l ain in Remarks	
	l Below Dark Surfa	ce (A11)	Depleted N	•	-,			(=xp.a : toae	,
	rk Surface (A12)	, ,		k Surface (F6)			³ Indicato	rs of hydrophytic vege	tation and
	lucky Mineral (S1)		Depleted D	ark Surface (F	7)			nd hydrology must be	
	leyed Matrix (S4)		Redox Dep	ressions (F8)			unless	s disturbed or prob l em	atic.
	_ayer (if present):								
Type:									Y
Depth (inc	ches):						Hydric Soil	Present? Yes	No X
Remarks:									
HYDROLO	GY								
	drology Indicators	.							
	ators (minimum of		d: check all that	apply)			Secon	idary Indicators (2 or n	nore required)
	Water (A1)			-Stained Leav	es (B9) (e	xcept		/ater-Stained Leaves (
	ter Table (A2)			RA 1, 2, 4A, a				4A, and 4B)	
Saturation				rust (B11)	,		Dı	rainage Patterns (B10))
Water M	arks (B1)			ic Invertebrate	es (B13)			ry-Season Water Tabl	
	t Deposits (B2)			gen Sulfide O				aturation Visib l e on Ae	
Drift Dep	osits (B3)		Oxidiz	zed Rhizosphe	res along	Living Roo	ots (C3) G	eomorphic Position (D	2)
Algal Ma	t or Crust (B4)		Prese	nce of Reduce	ed Iron (C4	1)	St	hallow Aquitard (D3)	
Iron Dep	osits (B5)		Recei	nt Iron Reducti	on in Tille	d Soi l s (C6) FA	AC-Neutral Test (D5)	
Surface	Soil Cracks (B6)		Stunte	ed or Stressed	Plants (D	1) (LRR A)) Ra	aised Ant Mounds (D6) (LRR A)
Inundation	on Visib l e on Aeria	l Imagery (B	7) Other	(Explain in Re	emarks)		Fr	rost-Heave Hummocks	s (D7)
Sparsely	Vegetated Conca	ve Surface (B8)						
Field Obser			· · ·						
Surface Water			No X Dept						
Water Table			No X Dept						
Saturation Pr	esent?	Yes	No X Dept	h (inches):		Wetla	and Hydrology	Present? Yes	No X
(includes cap	oillary fringe) corded Data (streai	m galige m	onitoring well as	rial photoe pr	evious ins	nections)	if available:		
Describe Nec	Solded Data (Streat	ii gauge, iii	Jilitoring Well, at	riai pilotos, pi	evious ilis	pections),	ii avaijabje.		
Domarko:									
Remarks:									

Project/Site: Nisqually State Park		City/County	Pierce		Sampling Date: 11/1/2023
Applicant/Owner: WA State Parks					Sampling Point: W7-SP1
Investigator(s): Dominguez, Hearsey					
Landform (hillslope, terrace, etc.): Broad Depression					Slope (%): 3
Subregion (LRR):				· ·	
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for					
Are Vegetation N, Soil N, or Hydrology N					resent? Yes X No
Are Vegetation Y , Soil N , or Hydrology N				eeded, explain any answer	
SUMMARY OF FINDINGS – Attach site ma				•	·
Hydrophytic Vegetation Present? Yes X					
Hydric Soil Present? Yes X	No		e Sampled		No
Wetland Hydrology Present? Yes X	No	with	in a Wetla	na? Yes <u>^\</u>	NO
Remarks: Invasive reed canary grass. VEGETATION – Use scientific names of pla	ants.				
201	Absolute	Dominant		Dominance Test works	sheet:
Tree Stratum (Plot size: 30' 1 POBA2 Black Cottonwood	<u>% Cover</u> 4	Species? Y	Status FAC	Number of Dominant Sp	
	_		170	That Are OBL, FACW, o	or FAC: 3 (A)
2 3				Total Number of Domina	2
4.				Species Across All Strat	.а. <u>- </u>
		 _ = Total Co	ver	Percent of Dominant Sp That Are OBL, FACW, of	
Sapling/Shrub Stratum (Plot size: 15'		_		Prevalence Index work	
1. LOIN5 Twin Berry	<u>10</u>	<u>Y</u> N	FAC FAC		Multiply by:
2. THPL Red Cedar 3. ACMA3 Big Leaf Maple	$-\frac{1}{2}$	N N	FACU		x 1 =
4. FRLA Oregon Ash	$-\frac{2}{1}$	<u>N</u>	FACW	FACW species 96	x 2 = <u>192</u>
5.	<u> </u>				x 3 = <u>45</u>
<u> </u>	 14	= Total Co	ver		x 4 = <u>2</u>
Herb Stratum (Plot size: 5'		_			x 5 =
1. PHAR3 Reed Canary Grass	95	<u>Y</u>	FACW	Column Totals: 113	(A) <u>239</u> (B)
2				Prevalence Index	
3				Hydrophytic Vegetatio	
4					lydrophytic Vegetation
5 6				2 - Dominance Test 3 - Prevalence Inde	
7				1 	daptations¹ (Provide supporting
8.					or on a separate sheet)
9				5 - Wetland Non-Va	scular Plants ¹
10					ohytic Vegetation ¹ (Exp l ain)
11				¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must
Woody Vino Stratum (Plot size: -	95	_= Total Cov	/er	be present, unless dista	rbed of problematic.
Woody Vine Stratum (Plot size:) 1.				I budua mbudia	
2.				Hydrophytic Vegetation	
	0	 _= Total Cov	/er	Present? Yes	s <u>X</u> No
% Bare Ground in Herb Stratum 5		=			
Remarks:					

SOIL Sampling Point: W7-SP1

Depth (inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc ²	Texture	Remarks
) - 9	10 YR 3/1	$\frac{-\frac{70}{100}}{100}$, , , , , , , , , , , , , , , , , , , ,	Турс		Lo	Loam
1-16	2.5 Y 5/2	$-\frac{700}{70}$	- 10 YR 5/6	30	- C		Si, Lo	
-10	2.5 1 3/2		_ 10 113/0			- IVI	31, 20	
			_		_			
			_					
			_		_	· ——		
			_					
 [vpe: C=Co	oncentration. D=[epletion. R	— ————————— M=Reduced Matri	x. CS=Cover	ed or Coat	ed Sand G	rains. ² Lo	ocation: PL=Pore Lining, M=Matrix.
			all LRRs, unless					ors for Problematic Hydric Soils ³ :
_ Histosol	(A1)		Sandy Red	lox (S5)			2 c	m Muck (A10)
	oipedon (A2)		Stripped M					d Parent Material (TF2)
Black Hi				cky Mineral (F1) (excep	t MLRA 1)		ry Shallow Dark Surface (TF12)
_ Hydroge	n Su l fide (A4)		Loamy Gle	yed Matrix (F	⁻ 2)		Oth	ner (Explain in Remarks)
	d Below Dark Sur	face (A11)	X Depleted N					
	ark Surface (A12)			k Surface (F	•			ors of hydrophytic vegetation and
	lucky Mineral (S1			ark Surface				and hydrology must be present,
	Bleyed Matrix (S4)		Redox Dep	ressions (F8)		unle	ss disturbed or prob l ematic.
	Layer (if present):						
Type:								v
							Hydric Soi	I Present? Yes X No
emarks:	GY							
emarks:		rs:						
YDROLO Vetland Hyd	GY drology Indicato		red; check all that	apply)				ondary Indicators (2 or more required)
Pemarks: POROLO Vetland Hydrimary Indicators	GY drology Indicato			apply) -Stained Lea	ıves (B9) (except	Seco	ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
PROLO /etland Hydrimary Indicates _ Surface	GY drology Indicato cators (minimum o		X Water			except	Seco	
PROLO /etland Hydrimary Indicates _ Surface	GY drology Indicato cators (minimum of Water (A1) ater Table (A2)		<u>X</u> Water M L Salt C	-Stained Lea -RA 1, 2, 4A crust (B11)	and 4B)	except	<u>Secc</u>	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
POROLO /Portland Hydrimary Indic Surface High Wa Saturatic	GY drology Indicato cators (minimum of Water (A1) ater Table (A2)		<u>X</u> Water M L Salt C	-Stained Lea	and 4B)	except	<u>Secc</u>	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
POROLO Petland Hydrimary Indic Surface High Wa Saturatic Water M	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3)		<u>X</u> Water MI Salt C Aquat	-Stained Lea -RA 1, 2, 4A crust (B11)	and 4B)	except	Seco _X \ I I	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
PROLO Petland Hydrimary India Surface High Wa Saturatio Water M Sedimer	GY drology Indicato cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1)		_X Water MI Salt C Aquat Hydro	-Stained Lea -RA 1, 2, 4A Frust (B11) ic Invertebra gen Sulfide (tes (B13) Odor (C1)		Secc X_\ I I	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
/DROLO /etland Hydrimary India Surface High Wa Saturatia Water M Sedimer Drift Dep	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2)		_X Water MI Salt C Aquat Hydro Oxidiz Prese	-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduc	tes (B13) Odor (C1) eres along ced Iron (C	ı Living Ro 4)	Secc. X \	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
YDROLO Vetland Hyd Surface High Wa Saturatio Water M Sedimer Drift Dep	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3)		_X Water MI Salt C Aquat Hydro Oxidiz Prese	-Stained Lea -RA 1, 2, 4A crust (B11) ic Invertebra gen Sulfide (zed Rhizosph	tes (B13) Odor (C1) eres along ced Iron (C	ı Living Ro 4)	Secco X V	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2)
POROLO Vetland Hydrimary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4)		_X Water MI Salt C Aquat Hydro Oxidiz Prese Recer	-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduc	tes (B13) Odor (C1) Deres along Ced Iron (C	Living Ro 4) ed Soils (C	Seco X_ v ! : : ots (C3) :	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3)
POROLO Petland Hydrimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	GY drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	of one requi	X Water MI Salt C Aquat Hydro Oxidiz Prese Recer Stunto	-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduct t Iron Reduct	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille	Living Ro 4) ed Soils (C	Second X V 1 2 3	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
/DROLO /etland Hydrimary India _ Surface _ High Wa _ Saturatio _ Water M _ Sedimer _ Drift Dep _ Algal Ma _ Iron Dep _ Surface _ Inundation	GY drology Indicato cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	of one requi		-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduct nt Iron Reduct ed or Stresse	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille	Living Ro 4) ed Soils (C	Second X V 1 2 3	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
/DROLO /etland Hydrimary India _ Surface _ High Wa _ Saturatia _ Water M _ Sedimer _ Drift Dep _ Algal Ma _ Iron Dep _ Surface _ Inundatia	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeri	of one requi al Imagery ave Surface		r-Stained Lea LRA 1, 2, 4A crust (B11) ic Invertebra gen Sulfide (red Rhizosph nce of Reduc nt Iron Reduc ed or Stresse (Explain in F	tes (B13) Ddor (C1) Deres along Ded Iron (C Detion in Tille Ded Plants (I Demarks)	Living Ro 4) ed Soils (C 01) (LRR A	Second X V 1 2 3	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
/DROLO /etland Hydrimary Indio Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely ield Obser	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeri	al Imagery ave Surface Yes	X Water	r-Stained Lea LRA 1, 2, 4A crust (B11) ic Invertebra gen Sulfide (red Rhizosph nce of Reduct the Iron Reduct ed or Stresse (Explain in F	tes (B13) Odor (C1) Deres along ced Iron (C ction in Tille d Plants (I Remarks)	Living Ro 4) ed Soils (C 01) (LRR A	Second X V 1 2 3	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
POROLO Vetland Hydrimary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely ield Observiturface Water	GY drology Indicator cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeri of Vegetated Concevations: er Present?	al Imagery ave Surface Yes	X Water	r-Stained Lea LRA 1, 2, 4A crust (B11) ic Invertebra gen Sulfide (red Rhizosph nce of Reduct the Iron Reduct ed or Stresse (Explain in F	tes (B13) Odor (C1) Deres along ced Iron (C ction in Tille d Plants (I Remarks)	Living Ro 4) ed Soils (C 01) (LRR A	Second X V 1 2 3	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLO Yetland Hydrimary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely ield Observiorface Water	GY drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeri of Vegetated Concevations: er Present?	al Imagery ave Surface Yes Yes		r-Stained Lea LRA 1, 2, 4A crust (B11) ic Invertebra gen Sulfide (red Rhizosph nce of Reduce the Iron Reduced or Stresse (Explain in F	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille Remarks)	Living Ro 4) ed Soils (C 01) (LRR A	Second X V	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Portion Porcludes capage	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeri of Vegetated Concovations: er Present? Present? resent?	al Imagery ave Surface Yes Yes	X Water MI Salt C Aquat Hydro Oxidiz Prese Recei Stunto Other Other Other Other Other No X Dept No X Dept Dept Other Other	-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduce at Iron Reduced or Stresse (Explain in Face) (Explain in Face) (inches):	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille Remarks)	Living Ro 4) ed Soils (Co 1) (LRR A	Second X V	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLO Vetland Hydrimary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Gield Observicution Per Concludes cap	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeri of Vegetated Concovations: er Present? Present? resent?	al Imagery ave Surface Yes Yes		-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduce at Iron Reduced or Stresse (Explain in Face) (Explain in Face) (inches):	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille Remarks)	Living Ro 4) ed Soils (Co 1) (LRR A	Second X V	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLO Vetland Hyderimary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Gield Obsert Surface Water Table Saturation Periocludes cap	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeri of Vegetated Concovations: er Present? Present? resent?	al Imagery ave Surface Yes Yes	X Water MI Salt C Aquat Hydro Oxidiz Prese Recei Stunto Other Other Other Other Other No X Dept No X Dept Dept Other Other	-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduce at Iron Reduced or Stresse (Explain in Face) (Explain in Face) (inches):	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille Remarks)	Living Ro 4) ed Soils (Co 1) (LRR A	Second X V	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLO Vetland Hyderimary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Gield Obsert Surface Water Table Saturation Periocludes cap	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeri of Vegetated Concovations: er Present? Present? resent?	al Imagery ave Surface Yes Yes	X Water MI Salt C Aquat Hydro Oxidiz Prese Recei Stunto Other Other Other Other Other No X Dept No X Dept Dept Other Other	-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduce at Iron Reduced or Stresse (Explain in Face) (Explain in Face) (inches):	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille Remarks)	Living Ro 4) ed Soils (Co 1) (LRR A	Second X V	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
/DROLO // Vetland Hydrimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely ield Obser urface Water // vater Table aturation Pencludes cap lescribe Rec	GY drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeri of Vegetated Concovations: er Present? Present? resent?	al Imagery ave Surface Yes Yes	X Water MI Salt C Aquat Hydro Oxidiz Prese Recei Stunto Other Other Other Other Other No X Dept No X Dept Dept Other Other	-Stained Lea -RA 1, 2, 4A -rust (B11) ic Invertebra gen Sulfide (zed Rhizosph nce of Reduce at Iron Reduced ed or Stresse (Explain in Factories):	tes (B13) Odor (C1) Heres along Ced Iron (C Stion in Tille Remarks)	Living Ro 4) ed Soils (Co 1) (LRR A	Second X V	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Nisqually State Park			City/County	: Pierce		Sampling Date: 11/1/2023	}
Applicant/Owner: WA State Parks						Sampling Point: W7-SP2	
Investigator(s): Dominguez, Hear	sey				nge:		
Landform (hillslope, terrace, etc.): Si						Slope (%): <u>4</u>	
Subregion (LRR):							
Soil Map Unit Name:							
Are climatic / hydrologic conditions o							
Are Vegetation N , Soil N ,		-				resent? Yes No X	,
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,					eeded, explain any answe		
SUMMARY OF FINDINGS -					•	·	etc.
Hydrophytic Vegetation Present?	Yes	No X					
Hydric Soil Present?	Yes			ne Sampled		No X	
Wetland Hydrology Present?	Yes	No <u>X</u>	With	nin a Wetlar	id? fes	NO <u>^</u>	
Remarks:							
VEGETATION II : ('	c						
VEGETATION – Use scienti	tic names of pla				1	 	1
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	: Indicator Status	Dominance Test work		
1. PSME Douglas Fir	,	10	N	FACU	Number of Dominant Sp That Are OBL, FACW, of		١)
2. ALRU Red Alder		30	Υ	FAC	Total Number of Domin		,
3. ACMA3 Big-Leaf Maple		15	<u>Y</u>	FACU	Species Across All Stra	4	3)
4					Percent of Dominant Sp	pecies	
Sapling/Shrub Stratum (Plot size:	15'	55	_ = Total Co	over	That Are OBL, FACW,		√B)
1. GASH Salal		80	Υ	FACU	Prevalence Index wor	ksheet:	
2. POMU Sword Fern			N	FACU		Multiply by:	
3.						x 1 =	
4.						x 2 =	
5					FAC species 31 110	x 3 = 93	
	,	85	_ = Total Co	over		x 5 =	
Herb Stratum (Plot size: 5' 1 BLSP Deer Fern)	1	Υ	FAC	Column Totals: 141		(B)
2.				· 			
3.					Prevalence Index Hydrophytic Vegetation		
4.					1 - Rapid Test for H		
5.					2 - Dominance Tes		
6					3 - Prevalence Inde		
7						daptations¹ (Provide support	ting
8						or on a separate sheet)	
9					5 - Wetland Non-Va		
10					1	ohytic Vegetation ¹ (Explain)	
11					be present, unless distu	l and wetland hydrology mus irbed or problematic.	π
Woody Vine Stratum (Plot size:)	1	_= Total Co	ver		·	
1					Hydrophytic		
2					Vegetation	Y	
0, 0 0 1, 10	n		_= Total Co	ver	Present? Yes	s No X	
% Bare Ground in Herb Stratum 10							
Nemans.							

SOIL Sampling Point: W7-SP2

	ription: (Describe	e to the dep	oth needed t				or confirm	the absence	of indicators.)		
Depth	Matrix Color (moist)	%	Color (m		x Features %	Type ¹	Loc ²	Texture	Dam	narks	
(inches) 0 - 3	Duff	100	Color (m	UISL)		туре	LUC	Si, Lo	ĸen	Iains	
3 -16	10 YR 4/3	100						Sa, Lo			
3-10	10 11 4/3							<u>Sa, LU</u>			
			-								
	oncentration, D=De						d Sand Gr		cation: PL=Pore Lir		
-	ndicators: (Appli	cable to all				ed.)			ors for Problemation	: Hydric S	ioils":
Histosol	· ,			Redox (S					m Muck (A10)	50)	
Histic Ep	pipedon (A2)			d Matrix) (oveent	: MLRA 1)		l Parent Materia l (T y Shallow Dark Surt)\
	n Sulfide (A4)			-	Matrix (F2		. IVILKA I)		er (Exp l ain in Rema		-)
	l Below Dark Surfa	ce (A11)		ed Matrix		,		0	ci (Explain in Nome	ii(0)	
	rk Surface (A12)	, ,			rface (F6)			³ Indicato	ors of hydrophytic ve	egetation a	and
Sandy M	lucky Mineral (S1)		Deplete	ed Dark S	Surface (F	7)		wetla	nd hydrology must	be presen	t,
	leyed Matrix (S4)		Redox	Depress	ions (F8)			unles	s disturbed or prob	lematic.	
Restrictive I	ayer (if present):										
Туре:											V
Depth (inc	ches):							Hydric Soil	Present? Yes _		lo <u>X</u>
Remarks:											
HYDROLO	GY										
	drology Indicators	· ·									
-	ators (minimum of		d: check all t	hat apply	v)			Seco	ndary Indicators (2	or more re	auired)
	Water (A1)				ned Leave	es (B9) (e	xcent		Vater-Stained Leave		
	ter Table (A2)		<u> </u>		1, 2, 4A, a		хоорг		4A, and 4B)	30 (D0) (III	
Saturation			Sa	alt Crust		,		D	rainage Patterns (E	310)	
	arks (B1)				/ertebrate:	s (B13)			ry-Season Water T		
	it Deposits (B2)				Sulfide Oc				aturation Visib l e on		agery (C9)
Drift Dep	oosits (B3)		0	kidized R	Rhizosphei	res along	Living Roo	ots (C3) G	Seomorphic Position	n (D2)	
Algal Ma	t or Crust (B4)		Pr	esence o	of Reduce	d Iron (C4	1)	s	hallow Aquitard (D3	3)	
Iron Dep	osits (B5)		Re	ecent Iro	n Reductio	on in Tille	d Soi l s (C6	s) F	AC-Neutral Test (D	5)	
Surface	Soil Cracks (B6)		St	unted or	Stressed	Plants (D	1) (LRR A)) R	aised Ant Mounds	(D6) (LRR	(A)
Inundation	on Visib l e on Aerial	I Imagery (B	7) <u> </u>	her (Exp	lain in Re	marks)		F	rost-Heave Hummo	ocks (D7)	
Sparsely	Vegetated Concav	ve Surface ((B8)								
Field Obser			.,								
Surface Water	er Present?	Yes	No X D	epth (ind	ches):		_				
Water Table	Present?	Yes	No <u>X</u> D	epth (ind	ches):		_				
Saturation Pr	resent?	Yes	No X D	epth (ind	ches):		Wetla	and Hydrolog	y Present? Yes	ו	vo <u>X</u>
(includes cap	oillary fringe) corded Data (strear							if available:			
Describe Rec	colded Data (Stream	n gauge, m	onitoring wer	ı, aenai p	motos, pre	evious iris	pections),	ii avaiiabie.			
Damania											
Remarks:											

Project/Site: Nisqually State Park		City/County	: Pierce	_	Sampling Date: <u>11/1/2023</u>	
Applicant/Owner: WA State Parks					Sampling Point: W8-SP1	
Investigator(s): Dominguez, Hearsey		Section, To	wnship, Ra	_{inge:} None		
Landform (hillslope, terrace, etc.): Broad Depression		Local relie	f (concave,	convex, none): Concave	Slope (%): <u>2</u>	
Subregion (LRR):	Lat:			Long:	Datum:	
Soil Map Unit Name:				NWI classifica	ation:	
Are climatic / hydrologic conditions on the site typical for	this time of yea	ar? Yes X	No _	(If no, explain in Re	emarks.)	
Are Vegetation N , Soil N , or Hydrology N	_ significantly	disturbed?	Are '	"Normal Circumstances" p	resent? Yes X No	
Are Vegetation N , Soil Y , or Hydrology N	_ naturally pro	blematic?	(If ne	eeded, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS - Attach site ma	p showing	samplin	g point I	ocations, transects,	, important features, etc	C.
Hydrophytic Vegetation Present? Yes	No X					
Hydric Soil Present? Yes			ne Sampled nin a Wetla		No	
Wetland Hydrology Present? Yes	No <u>X</u>	Witi	iii a vvetiai	ilur res :	NO	
Remarks: Loamy muck, really saturated, not meetin	g soil indica	ation.				
VEGETATION – Use scientific names of pla	ants.					
Tree Stratum (Plot size: 30'	Absolute		Indicator	Dominance Test works	sheet:	
1. FRPU7 Cascara	<u>% Cover</u> 5	Y Species?	FAC	Number of Dominant Sp That Are OBL, FACW, o		
2. ALRU Red Alder	$-\frac{1}{1}$	N	FAC		(//	
3. THPL Red Cedar		Y	FAC	Total Number of Domina Species Across All Strat	4	
4.						
151	8	= Total Co	over	Percent of Dominant Sp That Are OBL, FACW, o)
Sapling/Shrub Stratum (Plot size: 15') 1. SPHI4 Spirea	40	Υ	FAC	Prevalence Index work		_
2. FRPU7 Cascara	$-\frac{40}{5}$		FAC	Total % Cover of:	Multiply by:	
3. CONU4 Pacific Dogwood	— 5	N	FACU		x 1 = <u>90</u>	
4				FACW species 40		
5.				· · · · · · · · · · · · · · · · · · ·	x 3 = <u>15</u>	
	50	= Total Co	ver	FACU species		
Herb Stratum (Plot size: 5'			0.01		x 5 =	
1. OESA Water Parsley	$-\frac{90}{4}$	<u>Y</u>	OBL	Column Totals: 133	(A) <u>185</u> (B)	
2. VEAM2 Water Speedwell	1	<u>N</u>	OBL	Prevalence Index		
3				Hydrophytic Vegetatio	n Indicators:	
4		-		1 — 1	lydrophytic Vegetation	
5				2 - Dominance Test		
6				3 - Prevalence Inde		
7				4 - Morphological A	.daptations ¹ (Provide supporting s or on a separate sheet)	3
8 9				5 - Wetland Non-Va	• •	
10					phytic Vegetation ¹ (Explain)	
11.					and wetland hydrology must	
	0.4	= Total Co	ver	be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size:)						
1				Hydrophytic		
2	^	-		Vegetation Present? Yes	s X No	
% Bare Ground in Herb Stratum 9	0	= Total Co	ver	1.030111	<u></u>	
Remarks:						_

SOIL Sampling Point: W8-SP1

Profile Desc	ription: (Describ	e to the dep	th needed to	document	the indicator or o	confirm t	the absence	of indicators.)
Depth	Matrix	<u></u> %	Oalan (ma	Redox Fea		_oc²	T4	Damada
<u>(inches)</u> 0 - 16	Color (moist) 7.5 YR 2.5/1	100	Color (mo	<u>9</u>	<u> Type¹ L</u>		<u>Texture</u> Lo	Remarks Loamy Muck
0-10	7.5 11(2.5/1	_ 100						Loamy Muck
	-							
								
¹ Type: C=Co	oncentration, D=De	— ——— epletion. RM=		trix. CS=Cov	ered or Coated S	and Gra	ins. ² Loc	cation: PL=Pore Lining, M=Matrix.
	ndicators: (Appl					and ord		rs for Problematic Hydric Soils ³ :
Histosol				ledox (S5)	·			n Muck (A10)
	pipedon (A2)			Matrix (S6)				Parent Material (TF2)
Black Hi					al (F1) (except ML	_RA 1)		/ Shallow Dark Surface (TF12)
Hydroge	n Sulfide (A4)		Loamy (Gleyed Matrix	(F2)		X Othe	er (Explain in Remarks)
Depleted	d Below Dark Surfa	ace (A11)	Depleted	d Matrix (F3)				
	ark Surface (A12)			ark Surface				rs of hydrophytic vegetation and
	lucky Mineral (S1)			Dark Surfac				nd hydrology must be present,
	leyed Matrix (S4)		Redox L	epressions (F8)		unles	s disturbed or prob l ematic.
	_ayer (if present)							
Type:								- Y
Depth (inc	ches):						Hydric Soil	Present? Yes X No
Remarks:								
High orga	anic content	saturate	to surfac	e during	dig. 3-mont	th per	iod, mucł	k texture.
HYDROLO	GV.							
_	drology Indicator						_	
-	cators (minimum o	one required						ndary Indicators (2 or more required)
	Water (A1)				.eaves (B9) (exce	ept	w	/ater-Stained Leaves (B9) (MLRA 1, 2,
	ter Tab l e (A2)			MLRA 1, 2, 4	•			4A, and 4B)
X Saturation				t Crust (B11)				rainage Patterns (B10)
	arks (B1)			uatic Inverteb			· <u></u>	ry-Season Water Tab l e (C2)
	nt Deposits (B2)			drogen Su l fid				aturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Ox	dized Rhizos	pheres a l ong Livi	ng Roots	s (C3) <u>X</u> G	eomorphic Position (D2)
Algal Ma	it or Crust (B4)		·		duced Iron (C4)			hallow Aquitard (D3)
Iron Dep	osits (B5)		Re	cent Iron Red	luction in Tilled So	oils (C6)		AC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stu	nted or Stres	sed Plants (D1) (LRR A)	R	aised Ant Mounds (D6) (LRR A)
	on Visib l e on Aeria			ıer (Exp l ain i	n Remarks)		F	rost-Heave Hummocks (D7)
Sparsely	Vegetated Conca	ve Surface (E	38)					
Field Obser	vations:		V					
Surface Wate	er Present?							
Water Table	Present?	Yes I	No <u>X</u> De	epth (inches):				
Saturation P	resent?	Yes X I	No De	epth (inches):	0	Wetlar	nd Hydrology	y Present? Yes X No
(includes cap						4: > - **		
Describe Red	corded Data (strea	m gauge, mo	nitoring well,	aerial photos	s, previous inspec	ctions), if	available:	
Remarks:								

Project/Site: Nisqually State Park			City/Co	ounty: Pierce	Sampling Date: <u>11/1/2023</u>		
Applicant/Owner: WA State Parks					State: WA		
Investigator(s): Dominguez, Hear	sey						
Landform (hillslope, terrace, etc.): H							e (%): 1
Subregion (LRR):							
Soil Map Unit Name:							
Are climatic / hydrologic conditions of							
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,		-			"Normal Circumstances" p		No
Are Vegetation N, Soil N,					eeded, explain any answe		110
SUMMARY OF FINDINGS –							aturas atc
			Jann	pinig ponit i			
Hydrophytic Vegetation Present? Hydric Soil Present?		No X		Is the Sample	d Area		
Wetland Hydrology Present?	Yes	No X		within a Wetla	nd? Yes	No X	
Remarks:							
VEGETATION - Use scienti	ific names of pl	ants.					
30'		Absolute		inant Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30' 1. ALRU Red Alder)	<u>% Cover</u> 30	Spec Y	ies? Status FAC	Number of Dominant S		(4)
2. PSME Douglas Fir		<u> </u>	· '	FACU	That Are OBL, FACW,	or FAC: 3	(A)
3. THPL Red Cedar		— 	· N	— FAC	Total Number of Domin	^	(B)
4			-		Species Across All Stra	ıta. <u> </u>	(B)
-1.		 5 6	= Tota	al Cover	Percent of Dominant S That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum (Plot size:	<u>15'</u>		-		Prevalence Index wor	<u></u>	(A/B)
1. ACCI Vine Maple		85	Y	<u>FAC</u>	Total % Cover of:		hv.
2. RUAR Himalayan Blackberry	У	1	$\frac{N}{Y}$	<u>FAC</u>	OBL species		
3. GASH Salal				FACU_	FACW species		
4					FAC species		
5		<u>146</u>			FACU species		
Herb Stratum (Plot size: 5')	140	_ = 100	al Cover	UPL species	x 5 =	
1. GASH Salal		2	<u> Y</u>	FACU	Column Totals:	(A)	(B)
2. ATAM Alpine Ladyfern		1	<u> Y</u>	<u>FAC</u>	Prevalence Index	c = B/A =	
3					Hydrophytic Vegetation		
4					1 - Rapid Test for I	Hydrophytic Vegetaf	tion
5					2 - Dominance Tes	st is >50%	
6					3 - Prevalence Inde	ex is ≤3.0 ¹	
7					4 - Morphological A		
8					5 - Wetland Non-V	s or on a separate s	ineet)
9					Problematic Hydro		Evolain)
10					¹ Indicators of hydric so		
11		3		ol Cover	be present, unless dist		
Woody Vine Stratum (Plot size: -)	-	101a	ii Covei			
1					Hydrophytic		
2					Vegetation	es No_X	
0/ Dans Craywal in Harts Chartons 8	2		_= Tota	l Cover	Present? Ye	S NO	_
% Bare Ground in Herb Stratum 8:							
15% Moss Cover							

SOIL Sampling Point: W8-SP2

	ription: (Describe	e to the dep				or confirm	the absence of	of indicators.)	
Depth	Matrix Color (moist)	%	Color (moist)	edox Feature %	s Type ¹	Loc ²	Texture	Remark	/e
(inches) 0 - 1	10 YR 2/1	100	Color (moist)	70	Type	LUC	Lo	Remark	/2
1 -16	10 YR 3/1	100							
1-10	10 18 3/1	_ 100					Si, Lo		
									,
	oncentration, D=De					ed Sand Gr		ation: PL=Pore Lining	
Hydric Soil	ndicators: (Appli	cable to all	LRRs, unless of	therwise not	ed.)			rs for Problematic Hy	ydric Soils³:
Histosol			Sandy Redo					Muck (A10)	
	pipedon (A2)		Stripped Ma		4) /	SALDA 4)		Parent Material (TF2)	
Black Hi	stic (A3) n Sulfide (A4)			ky Mineral (F [.] ed Matrix (F2		(WLRA 1)		Shallow Dark Surface r (Explain in Remarks	
	ii Suilide (A4) I Below Dark Surfa	ce (A11)	Depleted Ma		.)		Ottle	i (Explain in Remarks))
	rk Surface (A12)	00 (/111)		Surface (F6)			³ Indicator	rs of hydrophytic vege	tation and
	lucky Mineral (S1)			ark Surface (F	7)			nd hydrology must be	
	leyed Matrix (S4)			essions (F8)			unless	s disturbed or prob l em	natic.
Restrictive I	_ayer (if present):								
Type:									
Depth (inc	ches):						Hydric Soil I	Present? Yes	No X
Remarks:							•		
8" Duff									
HYDROLO	GV								
-	drology Indicators		d. alaad. all that a				C	dam. Indiaatana (O.a	
	ators (minimum of	one require			(DO) /-			dary Indicators (2 or n	
_	Water (A1)			Stained Leav		xcept	vv	ater-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			RA 1, 2, 4A, a	ana 4B)		Б.	4A, and 4B)	、
Saturation	arks (B1)			ust (B11) c Invertebrate	o (B12)		·	rainage Patterns (B10)	
				en Sulfide O				ry-Season Water Tabl aturation Visible on Ae	
	nt Deposits (B2) posits (B3)		_ , ,	•	` ,	Livina Poo		eomorphic Position (D	3 3 · ,
-	it or Crust (B4)		· 	ice of Reduce	_	-	· · · —	nallow Aquitard (D3)	(2)
	osits (B5)		· 	Iron Reducti			· <u></u>	AC-Neutral Test (D5)	
	Soil Cracks (B6)			d or Stressed			· —	aised Ant Mounds (D6	i) (I RR A)
	on Visib l e on Aerial	I Imagery (B		Explain in Re		·) (L itti)		ost-Heave Hummocks	
	Vegetated Concar			xpiaiii iii ii	inanto)		<u> </u>		5 (21)
Field Obser		, o ounded (
Surface Water		Yes	No X Depth	(inches):					
Water Table			No X Depth						
Saturation P			No X Depth				and Hydrology	Present? Yes	No X
(includes cap	oillary fringe)	165	Deptil	(IIICHES).		_ we	and mydrology	rieseilt: Tes	NO
	corded Data (strear	m gauge, m	onitoring well, aer	ia l photos, pr	evious ins	pections),	if available:		
Remarks:									

Project/Site: Nisqually State Park	(City/Co	unty: Pierce		Sampling Date: <u>11/1/20</u>	23
Applicant/Owner: WA State Parks	_				Sampling Point: W9-SP	
	;		ı, Township, Ra		. •	
Landform (hillslope, terrace, etc.): Small Depression					Slope (%):	0
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for					·	
Are Vegetation Y, Soil Y, or Hydrology Y					present? Yes X No)
Are Vegetation N, Soil Y, or Hydrology N				eded, explain any answe		
SUMMARY OF FINDINGS – Attach site ma			·	•	·	s, etc.
Hydrophytic Vegetation Present? Yes Y						
Hydric Soil Present? Yes Y			ls the Sampled within a Wetlar		No	
Wetland Hydrology Present? Yes Y	No		witiiii a vvetiai	iu! Tes		
Remarks: Excavated Area VEGETATION – Use scientific names of place	ants.					
201	Absolute		nant Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30' 1. POBAZ Black Cottonwood	<u>% Cover</u> 15	<u>Speci</u> Y	es? <u>Status</u> FAC	Number of Dominant Sp		(4)
· · ·		<u> </u>		That Are OBL, FACW, o	or FAC: 3	(A)
2				Total Number of Domin	•	(D)
3 4				Species Across All Stra	ta: <u>5</u>	(B)
4.		= Tota	I Cover	Percent of Dominant Sp That Are OBL, FACW, of		(A/B)
Sapling/Shrub Stratum (Plot size: 15'		_ 1010		Prevalence Index world		(A/b)
1. ALRU Red Alder	5	<u>Y</u>	<u>FAC</u>	Total % Cover of:		
2				·	$x 1 = \frac{30}{}$	
3				FACW species		-
4					x 3 = 60	-
5				'	x 4 =	_
Herb Stratum (Plot size: 5'	5	_ = Tota	I Cover		x 5 =	
1. CAOB3 Slough Sedge	30	Υ	OBL	Column Totals: 50		(B)
2.				Prevalence Index	- B/A - 1.8	
3.				Hydrophytic Vegetation		_
4.					Hydrophytic Vegetation	
5				2 - Dominance Tes		
6				3 - Prevalence Inde		
7				4 - Morphological A	Adaptations ¹ (Provide supp	orting
8					s or on a separate sheet)	
9				5 - Wetland Non-Va		
10					ohytic Vegetation ¹ (Exp l air	
11				Indicators of hydric soil be present, unless distu	l and wetland hydrology m urbed or problematic	ıust
Woody Vine Stratum (Plot size:)	30	_= Total	Cover	be present, amos and	- Problemater	
1				Livelyambystia		
2.				Hydrophytic Vegetation	V	
	_	= Total	Cover	Present? Yes	s <u>X</u> No	
% Bare Ground in Herb Stratum 15						
Remarks: 55% Moss ground cover.						

SOIL Sampling Point: W9-SP1

Depth (inches)							n the absence				
	Matrix Color (moist)	%	Red Color (moist)	ox Featur %	es Type ¹	Loc ²	Texture	Remarks			
0 - 2	10 YR 3/2	$\frac{-\frac{70}{100}}{100}$	COIOI (IIIOISI)		1 1 1 1 1		Lo	W/ roots			
2 - 16	10 YR 5/2	$-\frac{100}{40}$	5Y 5/1	- 	– –		Silt				
			7.5 YR 4/6	_ 00	- C	- M	Silt				
			7.5 11(4/0	_ 25	- —		<u> </u>				
				_							
				_							
			M=Reduced Matrix, C			ed Sand G		cation: PL=Pore Lining, M=Matrix. prs for Problematic Hydric Soils³:			
Histosol			Sandy Redox				2 cr	m Muck (A10)			
	oipedon (A2)		Stripped Matri Loamy Mucky					d Parent Material (TF2)			
	istic (A3)		· · · · · · · · · · · · · · · · · · ·	y Shallow Dark Surface (TF12)							
	en Su l fide (A4) d Be l ow Dark Surf	ace (A11)		Oth	er (Explain in Remarks)						
	ark Surface (A12)	400 (7111)		³ Indicate	ors of hydrophytic vegetation and						
Sandy N	/lucky Mineral (S1))		wetla	and hydrology must be present,						
	eleyed Matrix (S4)			unless disturbed or problematic.							
	Layer (if present)):									
Type:	I Present? Yes X No										
Depth (inches): Hydric Soil Present? Yes X I Remarks:											
		Saturate	e to surface du	aring a	ig. 5-iii	onti pe	illou, muc	k texture.			
HYDROLO	GY										
	drology Indicator										
Primary India	cators (minimum o		ed; check all that app		(D0)			ndary Indicators (2 or more required)			
Primary India Surface	cators (minimum o Water (A1)		Water-St	ained Lea	ves (B9) (except		Vater-Stained Leaves (B9) (MLRA 1, 2,			
Primary India Surface High Wa	cators (minimum o Water (A1) ater Table (A2)		Water-St MLRA	ained Lea		except	v	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)			
Primary India Surface High Wa Saturation	cators (minimum o Water (A1) ater Table (A2) on (A3)		Water-St MLRA Salt Crus	ained Lea 1, 2, 4A, t (B11)	and 4B)	except	v	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10)			
Primary India Surface High Wa Saturatio	cators (minimum o Water (A1) ater Table (A2) on (A3)		Water-St MLRA	ained Lea 1, 2, 4A, t (B11) nvertebrat	and 4B) es (B13)	except	v	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)			
Primary India Surface High Wa Saturatia Water M Sedimen	cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)		Water-St MLRA Salt Crus Aquatic I Hydroger	ained Lea A 1, 2, 4A, t (B11) nvertebrat n Sulfide (and 4B) es (B13) Odor (C1)		V [Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2)			
Primary India Surface High Wa Saturatia X Water M Sedimer Drift Der	cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		Water-St MLRA Salt Crus Aquatic I Hydroger	ained Lea A 1, 2, 4A, t (B11) nvertebrat n Sulfide (Rhizosph	and 4B) es (B13) Odor (C1) eres along	g Living Roo	V E S ots (C3) X C	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)			
Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5)		Water-St MLRA Salt Crus Aquatic Ii Hydroger Oxidized Presence Recent Ir	ained Lea 1, 2, 4A, t (B11) nvertebrat n Sulfide (Rhizosph e of Reduc on Reduc	es (B13) Odor (C1) eres along ced Iron (C	g Living Roo (4) ed Soils (C6	V E S obts (C3) X C S S	Vater-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)			
Primary India Surface High Wa Saturatia X Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	of one requir	Water-St MLRA Salt Crus Aquatic Ii Hydroger Oxidized Presence Recent Ir X Stunted of	ained Lea 1, 2, 4A, t (B11) nvertebrat n Sulfide C Rhizosph of Reduc on Reduc or Stresse	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	g Living Roo (4) ed Soils (C6	V E S ots (C3) X C S S) X F	Vater-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)			
Primary India Surface High Wa Saturativ X Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) coosits (B3) at or Crust (B4) coosits (B5) Soil Cracks (B6) on Visible on Aeria	of one require	Water-St MLRA Salt Crus Aquatic li Hydroger Oxidized Presence Recent Ir X Stunted of Other (Ex	ained Lea 1, 2, 4A, t (B11) nvertebrat n Sulfide C Rhizosph of Reduc on Reduc or Stresse	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	g Living Roo (4) ed Soils (C6	V E S ots (C3) X C S S) X F	Vater-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)			
Primary India Surface High Wa Saturatia X Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeric	of one require	Water-St MLRA Salt Crus Aquatic li Hydroger Oxidized Presence Recent Ir X Stunted of Other (Ex	ained Lea 1, 2, 4A, t (B11) nvertebrat n Sulfide C Rhizosph of Reduc on Reduc or Stresse	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	g Living Roo (4) ed Soils (C6	V E S ots (C3) X C S S) X F	Vater-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)			
Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) and Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concavations:	of one requir al Imagery (l ave Surface	Water-St MLRA Salt Crus Aquatic Ii Hydroger Oxidized Presence Recent Ir X Stunted of B7) Other (Ex	ained Lea 1, 2, 4A, t (B11) nvertebrat n Sulfide (Rhizosph e of Reduc on Reduc or Stresse xplain in R	es (B13) Odor (C1) eres along ted Iron (C tion in Tille d Plants (I emarks)	g Living Roo (4) ed Soils (C6 (1) (LRR A	V E S ots (C3) X C S S) X F	Vater-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)			
Primary India Surface High Wa Saturativ X Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obsert	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concavations: er Present?	al Imagery (l ave Surface Yes	Water-St MLRA Salt Crus Aquatic Ii Hydroger Oxidized Presence Recent Ir X Stunted of Other (External Company) (B8) No X Depth (ii	ained Lea 1, 2, 4A, t (B11) nvertebrat n Sulfide (Rhizosph e of Reduc on Reduc or Stresse xplain in R	es (B13) Odor (C1) eres along ced Iron (C tion in Tilli d Plants (I	g Living Roo (4) ed Soils (C6 (1) (LRR A	V E S ots (C3) X C S S) X F	Vater-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)			
Primary India Surface High Wa Saturation X Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser Surface Water Table	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concervations: er Present? Present?	al Imagery (lave Surface Yes	Water-St MLRA	ained Lea 1, 2, 4A, t (B11) nvertebrat n Sulfide C Rhizosph e of Reduct on Reduct or Stresse xplain in R	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I emarks)	g Living Roo (4) ed Soils (C6 (D1) (LRR A	- V E S S S S S S S	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-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)			
Primary India Surface High Wa Saturativ X Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes cap	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concervations: er Present? Present? pillary fringe)	al Imagery (lave Surface Yes Yes Yes	Water-St MLRA Salt Crus Aquatic li Hydroger Oxidized Presence Recent li X Stunted (B7) Other (Ex (B8) No X Depth (ii No X Depth (ii Depth (ii Incomplete Incompl	ained Lea 1, 2, 4A, t (B11) nvertebrat Sulfide C Rhizosph of Reduct on Reduct or Stresse (plain in R nches): nches): nches):	es (B13) Odor (C1) eres along ded Iron (C tion in Tille d Plants (I emarks)	g Living Roc 24) ed Soils (C6 D1) (LRR A		Vater-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)			
Primary India Surface High Wa Saturativ X Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes cap	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concervations: er Present? Present? pillary fringe)	al Imagery (lave Surface Yes Yes Yes	Water-St MLRA	ained Lea 1, 2, 4A, t (B11) nvertebrat Sulfide C Rhizosph of Reduct on Reduct or Stresse (plain in R nches): nches): nches):	es (B13) Odor (C1) eres along ded Iron (C tion in Tille d Plants (I emarks)	g Living Roc 24) ed Soils (C6 D1) (LRR A		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-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)			
Primary India Surface High Wa Saturation Sediment Drift Dent Algal Ma Iron Dent Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation Perincludes can Describe Re	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concervations: er Present? Present? pillary fringe)	al Imagery (lave Surface Yes Yes Yes	Water-St MLRA Salt Crus Aquatic li Hydroger Oxidized Presence Recent li X Stunted (B7) Other (Ex (B8) No X Depth (ii No X Depth (ii Depth (ii Incomplete Incompl	ained Lea 1, 2, 4A, t (B11) nvertebrat Sulfide C Rhizosph of Reduct on Reduct or Stresse (plain in R nches): nches): nches):	es (B13) Odor (C1) eres along ded Iron (C tion in Tille d Plants (I emarks)	g Living Roc 24) ed Soils (C6 D1) (LRR A		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-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)			
Primary India Surface High Wa Saturativ X Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes cap	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concervations: er Present? Present? pillary fringe)	al Imagery (lave Surface Yes Yes Yes	Water-St MLRA Salt Crus Aquatic li Hydroger Oxidized Presence Recent li X Stunted (B7) Other (Ex (B8) No X Depth (ii No X Depth (ii Depth (ii Incomplete Incompl	ained Lea 1, 2, 4A, t (B11) nvertebrat Sulfide C Rhizosph of Reduct on Reduct or Stresse (plain in R nches): nches): nches):	es (B13) Odor (C1) eres along ded Iron (C tion in Tille d Plants (I emarks)	g Living Roc 24) ed Soils (C6 D1) (LRR A		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-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)			
Primary India Surface High Wa Saturation Sediment Drift Dent Algal Ma Iron Dent Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation Perincludes can Describe Re	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concervations: er Present? Present? pillary fringe)	al Imagery (lave Surface Yes Yes Yes	Water-St MLRA Salt Crus Aquatic li Hydroger Oxidized Presence Recent li X Stunted (B7) Other (Ex (B8) No X Depth (ii No X Depth (ii Depth (ii Incomplete Incompl	ained Lea 1, 2, 4A, t (B11) nvertebrat Sulfide C Rhizosph of Reduct on Reduct or Stresse (plain in R nches): nches): nches):	es (B13) Odor (C1) eres along ded Iron (C tion in Tille d Plants (I emarks)	g Living Roc 24) ed Soils (C6 D1) (LRR A		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-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)			
Primary India Surface High Wa Saturation Sediment Drift Dent Algal Ma Iron Dent Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation Perincludes can Describe Re	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aericy Vegetated Concervations: er Present? Present? pillary fringe)	al Imagery (lave Surface Yes Yes Yes	Water-St MLRA Salt Crus Aquatic li Hydroger Oxidized Presence Recent li X Stunted (B7) Other (Ex (B8) No X Depth (ii No X Depth (ii Depth (ii Incomplete Incomplete Incomplete Incomplete Depth (ii Incomplete Incomple	ained Lea 1, 2, 4A, t (B11) nvertebrat Sulfide C Rhizosph of Reduct on Reduct or Stresse (plain in R nches): nches): nches):	es (B13) Odor (C1) eres along ded Iron (C tion in Tille d Plants (I emarks)	g Living Roc 24) ed Soils (C6 D1) (LRR A		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-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)			

Project/Site: Nisqually State Park		City/County	: Pierce	Sampling Date: 11/1/2023
Applicant/Owner: WA State Parks				State: WA Sampling Point: W9-SP2
Investigator(s): Dominguez, Hearsey				
				convex, none): None Slope (%): 60
· · · · · · · · · · · · · · · · · · ·				_ Long: Datum:
Soil Map Unit Name:				
Are climatic / hydrologic conditions on the site typical for t				
Are Vegetation N , Soil N , or Hydrology N				"Normal Circumstances" present? Yes No
Are Vegetation N, Soil N, or Hydrology N				· — —
			•	eeded, explain any answers in Remarks.) ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes			e Sample	
Wetland Hydrology Present? Yes		with	in a Wetla	nd? Yes No X
Remarks:		•		
Excavated Area				
VEGETATION – Use scientific names of pla	ints.			
Tree Stratum (Plot size: 30')	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size: 30) 1 PSME Douglas Fir	60	Species?	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2. ACMA3 Big Leaf Maple	$-\frac{1}{2}$	N	FACU	That Are OBL, FACW, or FAC.
3.				Total Number of Dominant Species Across All Strata: 3 (B)
4				Opedes Across All Strata.
··	62	= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: 15'				Prevalence Index worksheet:
1. FRLA Oregon Ash	_ 3	N	FAC	Total % Cover of: Multiply by:
2. SYAL Common Snowberry	<u>90</u>	Y	FACU	OBL species x 1 =
3. HODI Ocean Spray	_ 3	<u>N</u>	<u>UPL</u>	FACW species x 2 =
4				FAC species x 3 =
5	96			FACU species x 4 =
Herb Stratum (Plot size: 5'	90	_ = Total Co	ver	UPL species x 5 =
1. MAAQ Oregon Grape	75	Υ	UPL	Column Totals: (A) (B)
2. GASH Salal	15	N	FACU	Prevalence Index = B/A =
3. RUUR Trailing Blackberry	1	N	FACU	Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 ¹
7				4 - Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹
10				Problematic Hydrophytic Vegetation ¹ (Explain)
11	04			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	91	_= Total Co	ver	
1				Hydrophytic
2				Vegetation
		= Total Co	ver	Present? Yes No X
% Bare Ground in Herb Stratum 5				
Remarks:				
30% Moss Cover				

SOIL Sampling Point: W9-SP2

	ription: (Describ		epth neede				or contirm	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Colo	Redo: r (moist)	<u>x Features</u> %	Type ¹	Loc²	Texture	Remarks
0 - 2	10 YR 2/1	100		(IIIOISI)		Туре	LOC	Lo	Loam
2 - 5	10 YR 3/2	100						Si, Lo	Silt/Loam
5 - 13	7.5 YR 4/3	$-\frac{100}{100}$							Silt/Sand
3 - 13	7.5 TK 4/5	100	_					Si, Sa	SilvSariu
1Type: C=C	oncentration, D=D	— ——— enletion RI	/=Reduce	d Matrix CS	=Covered	Or Coate	d Sand Gr	rains ² l o	cation: PL=Pore Lining, M=Matrix.
	ndicators: (App						u oana oi		ors for Problematic Hydric Soils ³ :
Histosol	(A1)		San	dy Redox (S	S5)	·		2 cr	m Muck (A10)
	ipedon (A2)			pped Matrix					d Parent Material (TF2)
Black Hi	stic (A3)			my Mucky N			MLRA 1)		y Shallow Dark Surface (TF12)
	n Su l fide (A4)			my Gleyed I)		Oth	er (Explain in Remarks)
	Below Dark Surf	ace (A11)		leted Matrix				31	
	irk Surface (A12) lucky Mineral (S1)			lox Dark Sui leted Dark \$		7)			ors of hydrophytic vegetation and and hydrology must be present,
	leyed Matrix (S4)			lox Depress		')			ss disturbed or problematic.
	ayer (if present)				(,			1	
Type:									
Depth (inc	ches):							Hydric Soil	Present? Yes No X
Remarks:								1	
HYDROLO	GY								
Wetland Hyd	drology Indicator	s:							
Primary Indic	ators (minimum o	f one requir	ed; check	all that apply	y)			<u>Seco</u>	ndary Indicators (2 or more required)
Surface	Water (A1)			Water-Stai	ned Leave	es (B9) (e :	xcept	v	Vater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ter Tab l e (A2)			MLRA	1, 2, 4A, a	nd 4B)			4A, and 4B)
Saturation				Salt Crust	(B11)			[Orainage Patterns (B10)
Water M	arks (B1)			Aquatic Inv	ertebrates/	s (B13)		[Ory-Season Water Table (C2)
	t Deposits (B2)			Hydrogen		` '			Saturation Visible on Aerial Imagery (C9)
	osits (B3)			Oxidized F		_	_		Geomorphic Position (D2)
— ~	t or Crust (B4)			Presence					Shallow Aquitard (D3)
	osits (B5)			Recent Iro			•	-	FAC-Neutral Test (D5)
	Soil Cracks (B6)	al Imagaan, (Stunted or Other (Exp		,	1) (LRR A	,	Raised Ant Mounds (D6) (LRR A)
_	on Visib l e on Aeria Vegetated Conca		· —	Other (Exp	nam m Kei	marks)		— 「	rost-Heave Hummocks (D7)
Field Observ		ave Guriace	(50)				<u> </u>		
Surface Wate		Yes	No X	_ Depth (ind	ches).				
Water Table				Depth (inc					
Saturation Pr				Depth (inc				and Hydrolog	y Present? Yes No X
(includes cap		163		_ Deptil (ille	Jiles)		_ ***	and mydrolog	y resent: res No
Describe Red	corded Data (strea	am gauge, r	nonitoring	well, aerial p	photos, pre	evious ins	pections),	if available:	
Remarks:									

Project/Site: Nisqually State Park	c	City/County:	Pierce		Sampling Date: <u>12/11/2023</u>	
Applicant/Owner: WA State Parks				State: WA	Sampling Point: W10-SP1	
Investigator(s): Dominguez x2		Section, Tov	vnship, Rar	_{nge:} None		
					Slope (%):	
Subregion (LRR):	Lat:			Long:	Datum:	
Soil Map Unit Name:				NWI classifica	ation:	
Are climatic / hydrologic conditions on the site typical for this t						
Are Vegetation N , Soil N , or Hydrology N sig	nificantly c	disturbed?	Are "I	Normal Circumstances" p	resent? Yes X No	
Are Vegetation N , Soil N , or Hydrology N nat	turally prot	olematic?	(If ne	eded, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site map sl	howina	sampling	a point la	ocations, transects.	important features. et	c.
Hydrophytic Vegetation Present? Yes Y No.			, p =			_
Hydric Soil Present? Yes Y No		Is the	e Sampled			
Wetland Hydrology Present? Yes Y		withi	n a Wetlan	d? Yes X	No	
Remarks: Excavated Area		•				
Excavated Area						
VEGETATION – Use scientific names of plants						
201	Absolute % Cover	Dominant Species?		Dominance Test works		
			FAC	Number of Dominant Sp That Are OBL, FACW, o		
2				Total Number of Domina	ant	
3				Species Across All Strat	0	
4	40			Percent of Dominant Sp	ecies	
Sapling/Shrub Stratum (Plot size: 15')	40	= Total Cov	/er	That Are OBL, FACW, o		3)
1				Prevalence Index work		
2.				Total % Cover of:		
3				· -	x 1 = 85 x 2 =	
4				FAC species 40	$x = 2 - \frac{120}{}$	
5				FACU species 10	$\times 4 = 40$	
Herb Stratum (Plot size: 5'		= Total Cov	/er	UPL species	x 5 =	
	85	Υ	OBL	Column Totals: 135	(A) <u>245</u> (B))
2. RUUR Tailing BB	5	N	FACU	Prevalence Index	= R/A = 1.81	
3. POMU Sword Fern	5	<u>N</u>	FACU	Hydrophytic Vegetatio		_
4				1 - Rapid Test for H	ydrophytic Vegetation	
5				X 2 - Dominance Test	is >50%	
6				X 3 - Prevalence Inde		
7					daptations ¹ (Provide supportin or on a separate sheet)	ıg
8				5 - Wetland Non-Va		
10					hytic Vegetation ¹ (Explain)	
11				¹ Indicators of hydric soil	and wetland hydrology must	
	30 _	 = Total Cov	er	be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size:)						
1				Hydrophytic		
2	0 .			Vegetation Present? Yes	<u> X</u> No	
% Bare Ground in Herb Stratum 10	<u> </u>	= Total Cov	er		<u>—</u>	
Remarks:						

SOIL Sampling Point: W10-SP1

	cription: (Descri		eptn need				or contirm	the absence	e ot indicators.)
Depth (inches)	Matrix Color (moist)		Colo	Redo or (moist)	x Features %	Type ¹	Loc²	Texture	Remarks
0 - 16	10 YR 4/2	100		(1110101)		. ,,,,,,,		Silt/Clay	Remaine
	10 111 1/2							- One Olay	
			_						
¹ Type: C=C	oncentration, D=[Denletion R	– ——— M=Reduce	ed Matrix, CS	S=Covered	d or Coate	d Sand Gr	ains ² l c	ocation: PL=Pore Lining, M=Matrix.
	Indicators: (App						u Gariu Gi		ors for Problematic Hydric Soils ³ :
Histosol				ndy Redox (,			m Muck (A10)
	oipedon (A2)			ipped Matrix					d Parent Material (TF2)
	istic (A3)			amy Mucky N		l) (except	MLRA 1)		ry Shallow Dark Surface (TF12)
	en Sulfide (A4)			amy Gleyed			,		ner (Explain in Remarks)
	d Below Dark Sur	face (A11)		pleted Matrix		,			, , , , , , , , , , , , , , , , , , ,
Thick D	ark Surface (A12)		Re	dox Dark Su	rface (F6)			³ Indicat	ors of hydrophytic vegetation and
	/lucky Mineral (S1			p l eted Dark		7)			and hydrology must be present,
	Bleyed Matrix (S4)		Re	dox Depress	sions (F8)			unle	ss disturbed or problematic.
Restrictive	Layer (if present):							
Туре:									V
Depth (in	ches):							Hydric Soi	il Present? Yes X No
HYDROLO									
Wetland Hy	drology Indicato	rs:							
Primary Indi	cators (minimum o	of one requi	red; check		•			<u>Seco</u>	ondary Indicators (2 or more required)
	Water (A1)		_	_ Water-Sta			xcept	'	Water-Stained Leaves (B9) (MLRA 1, 2,
✓ High Wa	ater Tab l e (A2)			MLRA	1, 2, 4A, a	ınd 4B)			4A, and 4B)
Saturati	` '			_ Salt Crust	, ,				Drainage Patterns (B10)
Water M	larks (B1)		_	_ Aquatic In	vertebrate	s (B13)		!	Dry-Season Water Table (C2)
Sedime	nt Deposits (B2)			_ Hydrogen	Sulfide Od	dor (C1)			Saturation Visible on Aerial Imagery (C9)
Drift De	oosits (B3)			Oxidized F	Rhizosphe	res a l ong	Living Roo	ts (C3) <u>X</u> (Geomorphic Position (D2)
_ `	at or Crust (B4)		_	_ Presence					Shallow Aquitard (D3)
Iron Dep			_	_ Recent Iro			•	· —	FAC-Neutral Test (D5)
	Soil Cracks (B6)			_ Stunted or			1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
	on Visib l e on Aeri			_ Other (Exp	o l ain in Re	marks)		'	Frost-Heave Hummocks (D7)
Sparsel	y Vegetated Conc	ave Surface	e (B8)						
Field Obser	vations:		V						
Surface Wat	er Present?			Depth (in			_		
Water Table	Present?	Yes X	_ No	Depth (in	ches): <u>2</u>		_		
Saturation P		Yes X	_ No	Depth (in	ches): 0		_ Wetla	and Hydrolog	gy Present? Yes X No
	pillary fringe) corded Data (stre	am gauge	monitoring	well. aerial	photos pre	evious ins	pections)	if available	
	22.000 2010 (0110	gaago,		,, aonai	F5100, PI		r 0 0 110/1,	G.GIGDIO.	
Domarka:									
Remarks:									

Project/Site: Nisqually State Park			City/County	Pierce	Sampling Date: 12/11/2023		
Applicant/Owner: WA State Parks					State: WA	Sampling Point: <u>V</u>	√10-SP2
Investigator(s): Dominguez x2			Section, To	wnship, Ra	_{nge:} None		
Landform (hillslope, terrace, etc.): Up					convex, none): Convex	Slope	e (%): <u>4</u>
Subregion (LRR):		Lat:			Long:	Datum	1:
Soil Map Unit Name:							
Are climatic / hydrologic conditions or							
Are Vegetation N, Soil N,	or Hydrology N	_ significantly	disturbed?	Are '	"Normal Circumstances" p	oresent? Yes X	No
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,					eeded, explain any answe		
SUMMARY OF FINDINGS -	Attach site ma	p showing	samplin	g point I	ocations, transects	, important fea	tures, etc.
Hydrophytic Vegetation Present?	Yes	No X					
Hydric Soil Present?	Yes	No X		e Sampled in a Wetla		No X	
Wetland Hydrology Present?	Yes	No <u>X</u>	With	III a vveuai	iu: 165		
Remarks: Excavated Area							
VEGETATION – Use scientif	ic names of pla	ants.					
		Absolute	Dominant	Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30')		Species?		Number of Dominant S		
1. POBA2 Black Cottonwood 2. PSME Doug Fir		<u>30</u> 15	<u>Y</u>	FACU FACU	That Are OBL, FACW,	or FAC: 2	(A)
				TACO	Total Number of Domir	_	(5)
3					Species Across All Stra	ita: <u>3</u>	(B)
4		45	= Total Co	ver	Percent of Dominant S		(A /D)
Sapling/Shrub Stratum (Plot size:	15' ₎			VOI	That Are OBL, FACW, Prevalence Index wor	·	(A/B)
1. ACCI Vine Maple			<u>Y</u>	FAC		Multiply	by:
2					OBL species		-
3					FACW species		
4					FAC species		
5		10			FACU species		
Herb Stratum (Plot size: 5')	10	= Total Co	ver	UPL species	x 5 =	
1. PTAQ Western Bracken Fern	,	10	<u>Y</u>	FACU	Column Totals:	(A)	(B)
2. RUUR Tailing BB		10	Υ	FACU	Prevalence Index	: = B/A =	
3. POMU Sword Fern		30	<u>Y</u>	FACU	Hydrophytic Vegetation		
4					1 - Rapid Test for I		ion
5					2 - Dominance Tes	st is >50%	
6					3 - Prevalence Inde	ex is ≤3.0 ¹	
7					4 - Morphological A		
8					data in Remark 5 - Wetland Non-V	s or on a separate s	neet)
9					9 - Wetland Non-V		Evolain\
10					¹ Indicators of hydric so		
11		F0	- Total Co		be present, unless dist	urbed or problemation	ogy must C.
Woody Vine Stratum (Plot size: -)		= Total Cov	/er			
1	·				Hydrophytic		
2					Vegetation	N. X	
0/ B 6 1. 11 . 6 50		0	= Total Cov	/er	Present? Ye	s No X	_
% Bare Ground in Herb Stratum 50 Remarks:							
romans.							

SOIL Sampling Point: W10-SP2

	ription: (Descri		pth need				or contirm	the absence	e ot indicators.)
Depth (inches)	Matrix Color (moist)		Colo	r (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0 - 16	10 YR 5/3	<u> 700</u>						Loam/Silt	
									·
					-				
¹ Type: C=C	oncentration, D=D	enletion RM	=Reduce	ed Matrix CS	S=Covered	d or Coate	d Sand Gr	rains ² L c	ocation: PL=Pore Lining, M=Matrix.
	Indicators: (App						<u>u ounu on</u>		ors for Problematic Hydric Soils ³ :
Histosol				ndy Redox (,			cm Muck (A10)
	oipedon (A2)			ipped Matrix					d Parent Material (TF2)
Black H				amy Mucky N) (except	MLRA 1)		ry Shallow Dark Surface (TF12)
Hydroge	en Sulfide (A4)			amy Gleyed					her (Explain in Remarks)
Deplete	d Below Dark Sur	face (A11)	De	pleted Matrix	(F3)				
	ark Surface (A12)			dox Dark Su	. ,				tors of hydrophytic vegetation and
	lucky Mineral (S1	,		pleted Dark		7)			and hydrology must be present,
	Gleyed Matrix (S4)		Re	dox Depress	sions (F8)			unle	ess disturbed or problematic.
	Layer (if present):							
Type:									v
Depth (in	ches):							Hydric Soi	il Present? Yes No X
HYDROLO									
•	drology Indicato							0	and and ladicates (O an area as as wised)
	cators (minimum o	of one require	ea; cneck			(50) (ondary Indicators (2 or more required)
_	Water (A1)		_	_ Water-Sta			xcept	_ `	Water-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (A2)				1, 2, 4A, a	ind 4B)		-	4A, and 4B)
Saturati	, ,			_ Salt Crust		(5.40)			Drainage Patterns (B10)
· · · · · · · · · · · · · · · · · · ·	larks (B1)			_ Aquatic In					Dry-Season Water Table (C2)
	nt Deposits (B2)			_ Hydrogen					Saturation Visible on Aerial Imagery (C9)
	posits (B3)			_ Oxidized F		_	_	—	Geomorphic Position (D2)
	at or Crust (B4)			_ Presence					Shallow Aquitard (D3)
Iron Dep				_ Recent Iro					FAC-Neutral Test (D5)
	Soil Cracks (B6)	al Imagaan, (F		_ Stunted or		,	1) (LKK A)	· · · · · · · · · · · · · · · · · · ·	Raised Ant Mounds (D6) (LRR A)
	on Visible on Aeri			_ Other (Exp	olain in Re	marks)			Frost-Heave Hummocks (D7)
	/ Vegetated Cond	ave Surrace	(B0)						
Field Obser		.,	X	5 "					
Surface Wat				Depth (in					
Water Table				Depth (in					V
Saturation P		Yes	No X	Depth (in	ches):		_ Wetla	and Hydrolog	gy Present? Yes No X
(includes car Describe Re	oillary fringe) corded Data (stre	am gauge m	onitoring	ı well. aerial ı	photos nre	evious ins	pections)	if available	
3000,1001,10	22.000 2010 (0110	gaago, II		,, aonai	F0100, PI		r 500.5110/, 1	2.0.000.	
Remarks:									
Nomains.									

Project/Site: Nisqually State Park		City/Co	ounty: Pierce		Sampling Date: <u>11/1/2023</u>	
Applicant/Owner: WA State Parks					Sampling Point: W11-SP1	
		Section	n, Township, Ra			
Landform (hillslope, terrace, etc.): Broad Depression					Slope (%): 0	
Subregion (LRR):				• •		
					cation:	
Are climatic / hydrologic conditions on the site typical for th					<u>- </u>	
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$, or Hydrology $\frac{N}{N}$	-				present? Yes X No	
Are Vegetation Y, Soil N, or Hydrology N						
SUMMARY OF FINDINGS – Attach site map				eeded, explain any answe		c.
Hydrophytic Vegetation Present? Yes X N		<u> </u>		•		
Hydric Soil Present? Yes X			Is the Sampled			
Wetland Hydrology Present? Yes X			within a Wetlar	nd? Yes <u>X</u>	No	
Remarks: Reed Canary grass. Abuts marked trail. VEGETATION – Use scientific names of plan	nts.					
Tree Stratum (Plot size: 30'	Absolute		nant Indicator	Dominance Test work	sheet:	
POBAZ Black Cottonwood	<u>% Cover</u> 20	Spec Y	ies? Status FAC	Number of Dominant S That Are OBL, FACW,		
2.				That Ale OBL, FACVV,	or FAC: 3 (A)	
3				Total Number of Domir Species Across All Stra	_	
4.				opedies Adross All Otte	(b)	
	20	= Tota	al Cover	Percent of Dominant S That Are OBL, FACW,		3)
Sapling/Shrub Stratum (Plot size: 15'		_		Prevalence Index wor	0117(8: (702	<i>''</i>
1. SYAL Common Snowberry	_ 20	Y	<u>FACU</u>	Total % Cover of:		
2. PHCAII Pacific Ninebark	_ 25	<u>Y</u>	FAC		x 1 = 52	
3				FACW species 10		
4				FAC species 46	x 3 = 138	
5	45			FACU species 45	x 4 = <u>180</u>	
Herb Stratum (Plot size: 5'		_ = 1 ota	al Cover	UPL species	x 5 =	
1. CAOB3 Slough Sedge	50	Υ	OBL	Column Totals: 153	(A) <u>390</u> (B))
2. SCMI2 Pinacled Bulrush	2	N	OBL	Prevalence Index	= B/A = 2.54	
3. GASH Salal	_ 15	Y	FACU	Hydrophytic Vegetation		_
4. JUEF Common Rush	10	<u>N</u>	FACW	1 - Rapid Test for I	Hydrophytic Vegetation	
5. RUUR Trailing Blackberry	_ 5	<u>N</u>	<u>FACU</u>	2 - Dominance Tes	st is >50%	
6. TOME Piggyback Plant	_ 1	<u>N</u>	<u>FAC</u>	3 - Prevalence Ind	ex is ≤3.0 ¹	
7					Adaptations ¹ (Provide supportin	ıg
8					s or on a separate sheet)	
9				5 - Wetland Non-V		
10					phytic Vegetation ¹ (Explain)	
11	83			be present, unless dist	il and wetland hydrology must urbed or problematic.	
Woody Vine Stratum (Plot size:)	03	_= Tota	I Cover		<u> </u>	
1				Hydrophytic		
2.				Vegetation	v	
	_	 _= Tota	I Cover	Present? Ye	s <u>X</u> No	
% Bare Ground in Herb Stratum 18						
Remarks:						

SOIL Sampling Point: W11-SP1

Depth	Matr	rix	<u> </u>		x Feature	s			e of indicators.)
(inches)	Color (moist		Colc	or (moist)	<u></u> %	Type ¹	Loc ²		Remarks
0 - 16	10 YR 3/2	90						Si, Lo	Silt/Loam
			5 YR	4/3	10	<u>C</u>	<u> M</u>	Si, Lo	Silt/Loam
	-		-			•	-		-
						-			
									<u> </u>
								_	
¹ Type: C=C	oncentration, D=	:Depletion, RI	√l=Reduce	ed Matrix, CS	S=Covere	d or Coat	ed Sand (Grains. ² Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Ap	plicable to a	II LRRs, ı	unless other	wise not	ed.)		Indica	tors for Problematic Hydric Soils ³ :
Histoso	, ,			ndy Redox (S					cm Muck (A10)
	pipedon (A2)			ipped Matrix					ed Parent Material (TF2)
	listic (A3)			amy Mucky N			ot MLRA 1		ery Shallow Dark Surface (TF12)
	en Su l fide (A4) d Below Dark Su	urface (Δ11)		amy Gleyed l pleted Matrix		<u>()</u>		Ot	her (Explain in Remarks)
	ark Surface (A12	. ,		dox Dark Su	. ,			³ Indica	tors of hydrophytic vegetation and
_	Mucky Mineral (S	*		p l eted Dark S					land hydrology must be present,
	Gleyed Matrix (S			dox Depress	•	,			ess disturbed or problematic.
Restrictive	Layer (if presen	nt):			<u> </u>				
Туре:									
Depth (in	iches):							Hydric So	il Present? Yes X No
HYDROLC Wetland Hy	OGY drology Indicat	ors:							
Primary Indi	cators (minimum	of one requir	ed; check	all that appl	v)			Sec	ondary Indicators (2 or more required)
Surface	Water (A1)			_ Water-Sta	ined Leav	es (B9) (except	_	Water-Stained Leaves (B9) (MLRA 1, 2,
High W	ater Table (A2)			MLRA	1, 2, 4A, a	and 4B)			4A, and 4B)
Saturat	ion (A3)		_	_ Salt Crust				<u>X</u>	Drainage Patterns (B10)
	/larks (B1)			_ Aquatic Inv					Dry-Season Water Table (C2)
	nt Deposits (B2)			_ Hydrogen					Saturation Visible on Aerial Imagery (C9)
	posits (B3)						-		Geomorphic Position (D2)
	at or Crust (B4)			_ Presence		•	•		Shallow Aquitard (D3)
Iron De			· · · · · · · · · · · · · · · · · · ·	Recent Iro				· ·	FAC-Neutral Test (D5)
	Soil Cracks (B6)			_ Stunted or)1) (LRR .		Raised Ant Mounds (D6) (LRR A)
	ion Visib l e on Ae y Vegetated Con			_ Other (Exp	nam m Ke	emarks)		_	Frost-Heave Hummocks (D7)
Field Obse		Save Sullace	(00)				<u> </u>		
	ter Present?	Yes	No X	Depth (inc	ches).				
Water Table				Depth (inc					
Saturation F				Depth (inc				tland Hydrolo	gy Present? Yes X No
	pillary fringe)	169	110 - 1		JIICS)		<u> </u>		gy : resent: 165 NO
	corded Data (str	eam gauge, r	nonitoring	well, aerial p	ohotos, pr	evious in	spections), if available:	
Remarks:									

Project/Site: Nisqually State Park		City/Cour	nty: Pierce		Sampling Date: 1	1/1/2023
Applicant/Owner: WA State Parks				State: WA		
Investigator(s): Dominguez, Hearsey		Section,	Township, Ra	nge:		
Landform (hillslope, terrace, etc.): Terrace		Local rel	lief (concave,	convex, none): Convex	Slop	oe (%): 2
Subregion (LRR):	Lat:			Long: Datum:		
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical						
Are Vegetation N , Soil N , or Hydrology N				·Normal Circumstances"		Nο
Are Vegetation N, Soil N, or Hydrology N				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site i			·		·	atures, etc.
Hydrophytic Vegetation Present? Yes	No X			<u> </u>	<u> </u>	
	No X		the Sampled		No X	
	No X	w	ithin a Wetlar	id? fes	NO <u>^</u>	
Remarks: Excavated Area VEGETATION – Use scientific names of	plants.					
201	Absolute		ant Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30')			s? Status	Number of Dominant S	•	
1. POBAZ Black Cottonwood 2. PSME Douglas Fir	⁵⁰ 20	- Y	<u>FAC</u> FACU	That Are OBL, FACW,	or FAC: 5	(A)
			_ 17.00	Total Number of Domir	4.4	(D)
3 4.				Species Across All Stra	ita: <u>''</u>	(B)
	70	 _ = Total	Cover	Percent of Dominant S That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum (Plot size: 15')	_	E40	Prevalence Index wor		
1. PHCAII Pacific Ninebark	<u>25</u> 	· Y	FAC	Total % Cover of:		y by:
2. ACCI Vine Maple 3. OECE Osoberry	$\frac{25}{5}$	<u> </u>	- FACU	OBL species	<u> </u>	
4. RUAR Himalayan Blackberry	$\frac{5}{5}$	N N	FAC	FACW species	x 2 =	
5. FRPU7 Cascara Buckthorn	<u>5</u>	- `` N	- FAC	FAC species	x 3 =	
5.	65	= Total		FACU species	x 4 =	
Herb Stratum (Plot size: 5'	-	Total	00101	UPL species		
1. GASH Salal	35	Y	FACU	Column Totals:	(A)	(B)
2. POMU Sword Fern	40	Y	_ FACU	Prevalence Index	c = B/A =	
3. PTAQ Western Brackenfern		N	_ FACU	Hydrophytic Vegetati	on Indicators:	
4. RUUR Trailing Blackberry	5	<u>N</u>	FACU_	1 - Rapid Test for I	Hydrophytic Vegeta	ation
5				2 - Dominance Tes		
6				3 - Prevalence Ind		
7				4 - Morphological	Adaptations¹ (Provi	
8				5 - Wetland Non-V	<u>=</u> '	Silect)
9				Problematic Hydro		(Explain)
10 11				¹Indicators of hydric so	. , .	` ' '
111.	0.4	= Total C	Cover	be present, unless dist		
Woody Vine Stratum (Plot size:)		_ 101410	30101			
1				Hydrophytic		
2				Vegetation Present? Yes	es No X	
% Bare Ground in Herb Stratum 19		_= Total C	Cover	, resent:	<u> </u>	—
Remarks:						

SOIL Sampling Point: W11-SP2

	ription: (Describe	e to the dep	oth neede				or confirm	the absence	of indicators.)	
Depth	Matrix Color (moist)	%	Color	Redox (moist)	<u>x Features</u> %	Type ¹	Loc ²	Texture	Remarks	
(inches) 0 - 9	10 YR 3/2	100	Color	(ITIOISL)	-/0	rype	LUC	Si, Lo	Silt/Loam	
9 - 16	10 YR 4/3	100						Si, Sa	Silt/Sand	
9-10	10 11 4/3							<u>31, 3a</u>	SilvSariu	
	oncentration, D=De						d Sand Gr		cation: PL=Pore Lining, M=	
-	ndicators: (Appli	cable to all				ea.)			ors for Problematic Hydri	c Soils":
Histosol				dy Redox (S					m Muck (A10)	
Black Hi	oipedon (A2)			ped Matrix ny Mucky N) (except	MIRA 1)		l Parent Material (TF2) y Shallow Dark Surface (TF	- 12)
	n Sulfide (A4)			ny Gleyed I			iniLity 1)		er (Explain in Remarks)	12)
	l Below Dark Surfa	ce (A11)		eted Matrix		,			,	
Thick Da	ırk Surface (A12)		Redo	ox Dark Sur	face (F6)			³ Indicate	ors of hydrophytic vegetatio	n and
	lucky Mineral (S1)			eted Dark S		7)			and hydrology must be pres	
	leyed Matrix (S4)		Redo	ox Depress	ions (F8)			unles	ss disturbed or prob l ematic	
	_ayer (if present):									
Type:									ID (0.)/	X
Depth (inc	ches):							Hydric Soil	Present? Yes	No <u>X</u>
Remarks:										
HYDROLO	GY									
Wetland Hyd	drology Indicators);								
	ators (minimum of		d; check a	III that apply	/)			Seco	ndary Indicators (2 or more	required)
•	Water (A1)			Water-Stai		es (B9) (e :	xcept		Vater-Stained Leaves (B9)	
— High Wa	ter Table (A2)				1, 2, 4A, a		•		4A, and 4B)	` , ,
Saturation				Salt Crust		,		0	Orainage Patterns (B10)	
Water M	arks (B1)		_	Aquatic Inv	ertebrates	s (B13)		c	Ory-Season Water Table (C	2)
Sedimer	t Deposits (B2)			Hydrogen	Su l fide Od	lor (C1)			Saturation Visible on Aerial	
Drift Dep	osits (B3)			Oxidized R	hizospher	es along l	Living Roo	ots (C3) G	Seomorphic Position (D2)	
Algal Ma	t or Crust (B4)			Presence of	of Reduce	d Iron (C4	!)	s	Shallow Aquitard (D3)	
Iron Dep	osits (B5)			Recent Iron	n Reductio	on in Tilled	d Soi l s (C6) F	AC-Neutral Test (D5)	
Surface	Soil Cracks (B6)			Stunted or	Stressed	Plants (D	1) (LRR A)) <u> </u>	Raised Ant Mounds (D6) (Ll	RR A)
Inundation	on Visib l e on Aerial	Imagery (B	37)	Other (Exp	lain in Re	marks)		F	rost-Heave Hummocks (D	7)
Sparsely	Vegetated Conca	ve Surface ((B8)							
Field Obser			V							
Surface Water		Yes								
Water Table		Yes								
Saturation Pr	esent?	Yes	No X	Depth (inc	ches):		Wetla	and Hydrolog	y Present? Yes	No <u>X</u>
(includes cap	oillary fringe) corded Data (strear	m dalide m	onitorina v	vell aerial r	hotos pre	evious ins	nections)	if available		
Describe Ne	sorded Data (Stream	n gaage, m	omtoring v	veli, aeriai p	motos, pre	ovious iris	pedilolis),	ii available.		
Remarks:										
Memarks.										

Project/Site: Nisqually State Park		City/County	Pierce		Sampling Date: <u>11/1/2023</u>
Applicant/Owner: WA State Parks					Sampling Point: W12-SP1
Investigator(s): Dominguez, Hearsey	;	Section, To	wnship, Rar	_{nge:} None	
Landform (hillslope, terrace, etc.): Flat Lowland		Local relief	(concave, o	convex, none): Concave	Slope (%): < 1
Subregion (LRR):	Lat:			Long:	Datum:
Soil Map Unit Name:				NWI classifica	ation:
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes X	No	(If no, explain in Re	emarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} s	gnificantly	disturbed?	Are "	Normal Circumstances" pi	resent? Yes X No
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} n	aturally pro	b l ematic?	(If ne	eded, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point k	ocations, transects,	, important features, etc.
Hydrophytic Vegetation Present? Yes Y					
Hydric Soil Present? Yes Y		I	ie Sampled in a Wetlan		No
Wetland Hydrology Present? Yes Y	<u> </u>	With		iu! Tes <u>**</u>	
Remarks:					
VEGETATION – Use scientific names of plant	te				
VEGETATION — Ose scientific fiames of plant	Absolute	Dominant	Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 30'		Species?		Number of Dominant Sp	
1				That Are OBL, FACW, o	
2				Total Number of Domina	ant
3				Species Across All Strat	ta: <u>2</u> (B)
4	0			Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15')	-	= Total Co	ver	That Are OBL, FACW, o	
1. POBA2 Black Cottonwood	90	<u>Y</u>	FAC	Prevalence Index work	
2					<u>Multiply by:</u> x 1 =
3				I	x 2 =
4					x 3 = 220
5					x 4 =
Herb Stratum (Plot size: 5'	90	= Total Co	ver		x 5 =
1. POAN Grass	20	<u>Y</u>		Column Totals: 110	(A) <u>220</u> (B)
2				Prevalence Index	= B/A = 2
3				Hydrophytic Vegetatio	
4					lydrophytic Vegetation
5				2 - Dominance Test	
6				3 - Prevalence Inde	
7					daptations ¹ (Provide supporting or on a separate sheet)
8				5 - Wetland Non-Va	
9					phytic Vegetation ¹ (Explain)
10 11					and wetland hydrology must
···	20	= Total Cov	ver	be present, unless distu	
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2				Vegetation Present? Yes	s <u>X No</u>
% Bare Ground in Herb Stratum 80	0	= Total Cov	/er		
Remarks:				L	
Field presumed FAC due to location.					
15% moss. Wetland overall 23% herbal	vegeta	tion.			

SOIL Sampling Point: W12-SP1

		e to the de	pth needed to doc			or confirm	the absence	of indicators.)
Depth	Matrix Color (moist)	%	Color (moist)	lox Feature %	es Type ¹	Loc ²	Texture	Remarks
<u>(inches)</u> 0 - 11	10 YR 2/1	100	Color (moist)		Type	LOC	Lo	Remarks
11 - 16	10 YR 4/1	- 100 80	7.5 YR 5/6					
11-10	10 11 4/1	_ 60	7.5 1 1 5/0	_ 20	- C	- IVI		
					_			
		_						
					_			
				_				
	-		-					
					_			
	-			_	_			
			1=Reduced Matrix, 0			ed Sand Gr		ation: PL=Pore Lining, M=Matrix.
_		cable to al	I LRRs, unless oth		ted.)			rs for Problematic Hydric Soils ³ :
Histosol			Sandy Redox					n Muck (A10)
	pipedon (A2)		Stripped Matr		:1) (avaan	4 MI DA 4\		Parent Material (TF2)
Black Hi	n Sulfide (A4)		Loamy Mucky Loamy Gleyed			ot WILKA 1)		r Shallow Dark Surface (TF12) er (Explain in Remarks)
	l Below Dark Surfa	ce (A11)	Depleted Mate		۷)		0.116	CAPIAIII III Remarks)
	ark Surface (A12)	oo (, . , . ,	Redox Dark S)		³ Indicato	rs of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark	•	,			nd hydrology must be present,
Sandy G	leyed Matrix (S4)		Redox Depres	ssions (F8)			unles	s disturbed or prob l ematic.
Restrictive I	_ayer (if present):							
Type:								V
Depth (inc	ches):		<u></u>				Hydric Soil	Present? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hyd	drology Indicators	s:						
Primary India	ators (minimum of	one require	ed; check all that ap	oly)			Secon	idary Indicators (2 or more required)
Surface	Water (A1)		Water-St	ained Leav	/es (B9) (except	w	/ater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		MLRA	A 1, 2, 4A,	and 4B)			4A, and 4B)
Saturatio	on (A3)		Salt Crus	st (B11)			D	rainage Patterns (B10)
Water M	arks (B1)		Aquatic I	nvertebrate	es (B13)		D	ry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydroge	n Su l fide C	dor (C1)		Sa	aturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Oxidized	Rhizosphe	eres a l ong	Living Roo	ts (C3) <u>X</u> G	eomorphic Position (D2)
Algal Ma	it or Crust (B4)		Presence	e of Reduc	ed Iron (C	34)	SI	hallow Aquitard (D3)
	osits (B5)		Recent I	ron Reduct	ion in Tille	ed Soils (C6		AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted		•	D1) (LRR A)	·	aised Ant Mounds (D6) (LRR A)
	on Visib l e on Aerial			xplain in R	emarks)		Fr	rost-Heave Hummocks (D7)
	Vegetated Concav	ve Surface	(B8)					
Field Obser			Y					
Surface Wate			No X Depth (i					
Water Table			No X Depth (i					V
Saturation Proceed (includes cape	resent?	Yes	No X Depth (i	nches):		Wetla	and Hydrology	Present? Yes X No
		n gauge, m	nonitoring well, aeria	I photos, p	revious in	spections), i	if available:	
Remarks:								

Project/Site: Nisqually State Park			City/Co	ounty:	Pierce		Sampling	g Date: <u>11/2/</u>	2023
Applicant/Owner: WA State Parks						State: WA			
Investigator(s): Dominguez, Hear	sey								
Landform (hillslope, terrace, etc.): H								Slope (%); 20
Subregion (LRR):									
Soil Map Unit Name:									
Are climatic / hydrologic conditions o									
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,								ves X	No
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,									
SUMMARY OF FINDINGS –									es. etc.
Hydrophytic Vegetation Present?	Yes N		,	F	, po		, p o.		
Hydric Soil Present?	Yes N			Is the	e Sampled			v	
Wetland Hydrology Present?	Yes N	o X		withi	n a Wetlar	nd? Yes	No	<u>x</u>	
Remarks: Reference NRCS Hydroto VEGETATION – Use scienti		te							
VEGETATION - 030 3010111	——————————————————————————————————————	Absolute	Domi	inant	Indicator	Dominance Test work	sheet:		
)	% Cover	Spec	ies?	Status	Number of Dominant S	pecies		
1. PSME Douglas Fir		_ <u>15</u>	<u> Y</u>		FACU	That Are OBL, FACW,	or FAC:	2	_ (A)
2						Total Number of Domin	ant	_	
3						Species Across All Stra	ta:	5	_ (B)
4			 _ = Tota	—— al Cov		Percent of Dominant Sp That Are OBL, FACW,		.4	(A/B)
Sapling/Shrub Stratum (Plot size:	15.	50	V		EAC	Prevalence Index wor			
1. POBA2 Black Cottonwood 2. THPL Red Cedar		- 50 35	N		FAC	Total % Cover of:		Multiply by:	
						OBL species	x ′	1 =	_
3 4						FACW species	×2	2 =	
5.		_				FAC species	x:	3 =	_
0.		85	= Tota	al Cov		FACU species			
Herb Stratum (Plot size: 5')		_			UPL species			
1. GASH Salal		- 75	- Y		FACU	Column Totals:	(A)	,	(B)
2. POMU Sword Fern		_ 25	- <u>Y</u>		FACU	Prevalence Index	= B/A =		
3						Hydrophytic Vegetation			
4						1 - Rapid Test for H			
5						2 - Dominance Tes		_	
6						3 - Prevalence Inde			
7						4 - Morphological A			
8. 9.						5 - Wetland Non-Va		•	-/
10						Problematic Hydro			lain)
11.						¹ Indicators of hydric soi	-	-	
		100	 = Tota	I Cov	er	be present, unless distu	ırbed or p	roblematic.	
Woody Vine Stratum (Plot size: -)								
1						Hydrophytic			
2						Vegetation Yes	s	No X	
% Bare Ground in Herb Stratum 20)	0	_= Tota	I Cov	er				
Remarks:									

SOIL Sampling Point: W11-SP2

	ription: (Describe	e to the dep	oth needed to				or confirm	the absence	of indicators.)	
Depth	Matrix Color (moist)	%	Color (magi		x Features		Loc ²	Taydura	Domonico	
(inches) 0 - 1	10 YR 2/2	100	Color (moi	St)	<u></u> %	Type ¹	LOC	Texture Lo	Remarks Loam	
1 - 16	10 YR 5/3	_ 100	-					<u>Si</u>	Silt	
			-							-
¹ Type: C=Co	oncentration, D=De	pletion, RM	=Reduced Mat	trix, CS	S=Covered	d or Coate	d Sand Gr	rains. ² Lo	cation: PL=Pore Lining, M=I	Matrix.
	ndicators: (Appli								ors for Problematic Hydric	Soils³:
Histosol	(A1)		Sandy Re	edox (S	S5)			2 cr	m Muck (A10)	
Histic Ep	oipedon (A2)		Stripped	Matrix	(S6)			Red	d Parent Material (TF2)	
Black Hi							MLRA 1)		y Shallow Dark Surface (TF	12)
	n Sulfide (A4)			-	Matrix (F2)		Oth	er (Explain in Remarks)	
	l Below Dark Surfa	ce (A11)	Depleted		. ,			31		
_	ark Surface (A12)				rface (F6)	7)			ors of hydrophytic vegetation and hydrology must be prese	
	lucky Mineral (S1) leyed Matrix (S4)		Redox D		Surface (F ions (F8)	<i>(</i>)			and flydrology must be prese ss disturbed or prob l ematic.	·rit,
	_ayer (if present):				10110 (1 0)				so distarboa or problematic.	
Type:										
Depth (inc	ches).							Hydric Soil	Present? Yes	No X
Remarks:								1,		
	Relic redox c	oncentra	ations as	conc	retions	~20%	6			
	tono rodox o	011001161		00110		, _0,	·			
HYDROLO	GY									
Wetland Hyd	drology Indicators	s:								
Primary India	ators (minimum of	one require	d; check all tha	at appl	v)			Seco	ndary Indicators (2 or more i	required)
Surface	Water (A1)		Wat	er-Sta	ined Leave	es (B9) (e :	xcept	V	Vater-Stained Leaves (B9) (I	MLRA 1, 2,
— High Wa	ter Table (A2)		· 		1, 2, 4A, a		•		4A, and 4B)	
Saturatio			Salt			•		[Orainage Patterns (B10)	
Water M	arks (B1)				vertebrate	s (B13)			Dry-Season Water Table (C2)
Sedimer	t Deposits (B2)				Sulfide Od				Saturation Visible on Aerial Ir	
Drift Dep	osits (B3)		Oxid	dized F	Rhizosphe	res a l ong	Living Roc	ots (C3) C	Geomorphic Position (D2)	
Algal Ma	t or Crust (B4)		Pres	sence	of Reduce	d Iron (C4	1)	8	Shallow Aquitard (D3)	
Iron Dep	osits (B5)		Rec	ent Iro	n Reducti	on in Tille	d Soi l s (C6	S) F	FAC-Neutral Test (D5)	
Surface	Soil Cracks (B6)		Stur	nted or	Stressed	Plants (D	1) (LRR A) <u> </u>	Raised Ant Mounds (D6) (LR	R A)
Inundation	on Visib l e on Aeria	Imagery (B	7) Oth	er (Exp	lain in Re	marks)		F	rost-Heave Hummocks (D7)	1
Sparsely	Vegetated Conca	ve Surface (B8)							
Field Obser										
Surface Wate	er Present?	Yes	No X De	pth (in	ches):		_			
Water Table			No X De							
Saturation Pr			No X De					and Hvdrolog	y Present? Yes	No X
(includes cap	oillary fringe)								<u> </u>	
Describe Red	corded Data (strea	m gauge, m	onitoring well,	aeria l p	photos, pro	evious ins	pections),	if available:		
Remarks:										

Project/Site: Nisqually State Park		City/County	: Pierce		Sampling Date: 11/1/2023
Applicant/Owner: WA State Parks					Sampling Point: W13-SP1
Investigator(s): Dominguez, Hearsey					
Landform (hillslope, terrace, etc.): Forest Bottomland					Slope (%): 0
Subregion (LRR):				•	
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for t					
Are Vegetation N, Soil N, or Hydrology N					resent? Yes X No
Are Vegetation N, Soil N, or Hydrology N				eeded, explain any answer	
SUMMARY OF FINDINGS – Attach site ma				•	·
Hydrophytic Vegetation Present? Yes Y					
Hydric Soil Present? Yes Y	No		e Sampled		No
Wetland Hydrology Present? Yes Y	No	with	in a Wetlaı	nu? Yes <u>^ </u>	NO
Remarks:					
└ VEGETATION – Use scientific names of pla	nte				
VEGETATION - Ose scientific flames of pla	Absolute	Dominant	Indicator	Dominance Test works	shoot:
<u>Tree Stratum</u> (Plot size: 30')		Species?		Number of Dominant St	
1				That Are OBL, FACW, o	
2				Total Number of Domina	
3		·		Species Across All Strat	ta: <u>6</u> (B)
4	_			Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15')	<u> </u>	_ = Total Co	ver	That Are OBL, FACW, o	
1. THPL Red Cedar	10	Y	FAC	Prevalence Index work	
2. ACMA3 Big Leaf Maple	10	. <u>Y</u>	FAC		Multiply by: x 1 = 20
3. POBAZ Black Cottonwood	_ 10	. <u>Y</u>	FAC	OBL species 20 FACW species 65	
4. GASH Salal	2	<u>N</u>	FACU	FAC species 20	x 3 = 60
5				FACU species 12	
Herb Stratum (Plot size: 5'	32	_ = Total Co	ver		x 5 =
1. PHAR3 Reed Canary Grass	65	<u>Y</u>	FACW	Column Totals: 117	(A) <u>258</u> (B)
2. CAOB3 Slough Sedge	20	Y	OBL	Prevalence Index	= B/A = 2.2
3				Hydrophytic Vegetatio	
4					lydrophytic Vegetation
5				2 - Dominance Tes	
6				√ 3 - Prevalence Inde	
7					daptations ¹ (Provide supporting or on a separate sheet)
8 9				5 - Wetland Non-Va	·
10					ohytic Vegetation¹ (Explain)
11.					and wetland hydrology must
		_= Total Cov	/er	be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic Vegetation	
2	0	 _= Total Cov		Present? Yes	s <u>X</u> No
% Bare Ground in Herb Stratum 15	-	TOTAL COV	·61		
Remarks:				•	

SOIL Sampling Point: W13-SP1

1	Depth (inches)	Matri: Color (moist)		Re Color (moist)	dox Featur %	Type ¹	Loc²	Texture	Remarks
7-16 2.5 YR 4/1 80 5 YR 3/4 10 C M Sa, Si 2.5 Y 6/1 10 D M Sa Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Thick Capital Capital Sand Sand Sand Sand Sand Sand Sand Sand				<u> </u>		Турс		-	Remarks
2.5 Y 6/1				5 VP 3//			<u>N</u>		
Specific Concentration	- 10	2.5 11(4/1					· 		
Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histoc Epipedon (A2)				2.5 Y 6/1	10		. <u>IVI</u>	<u>Sa</u>	
Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histoc Epipedon (A2)						_			
Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*:									
Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*:									
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A1) Black Histic (A2) Stripped Matrix (S8) 2 cm Muck (A1) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Depleted 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 (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Backy Gley Matrix (S4) Surface Water (F7) Popth (inches): Water Table (A2) Muck A1, A4, And A4B) Hydric Soil Present? Yes No X Depth (inches): Drainage Patterns (B10) Secondary Indicators (2 or more required Mucky Mucky A1, A1, A2, A3, A3, A3, A3, A3, A3, A4, A3, A4				_		_			
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A1) Black Histic (A2) Stripped Matrix (S8) 2 cm Muck (A1) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Depleted 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 (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Backy Gley Matrix (S4) Surface Water (F7) Popth (inches): Water Table (A2) Muck A1, A4, And A4B) Hydric Soil Present? Yes No X Depth (inches): Drainage Patterns (B10) Secondary Indicators (2 or more required Mucky Mucky A1, A1, A2, A3, A3, A3, A3, A3, A3, A4, A3, A4				_		_			
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Sandy Redox (S5) Histosoil (A1) Stirpped Matrix (S6) Black Histo (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F8) Wetland Hydrology must be present, unless disturbed or problematic. **Water (F1)** **Water (F1)** **Water (F1)** **Water (F1)** **Water (F1)* **Water (F1						_			
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) Redox Dark Surface (F6) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present. Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) wetland hydrology must be present. Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Popth (inches): Hydric Soil Present? Yes No Depth (inches): Mulcay Mater Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Surface Soil Cracks (B6) Recent Inc Reduction in Titled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) X Stunted or Stressed Plants (D1) (LRR A) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) eld Observations: urlace Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Sturtation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Sturtation Previous inspections), if available:							ed Sand G		
Histic Epipedon (A2) Stripped Matrix (S8) Red Parent Material (TF2)			olicable to a			ted.)			•
Black Histic (A3)									, ,
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Sestrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes X No emarks: Hydric Soil Present? Yes X No Matrix (B1) Secondary Indicators (2 or more required in many finance (B1) High Water Table (A2) Satt Crust (B1) Setting on Satt Crust (B1) Setting on Setting on Setting on Setting on Setting National (C2) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Iron Deposits (B5) Surface Soil Cracks (B6) Iron Deposits (B7) Sparsely Vegetated Concave Surface (B8) Surface Soil Cracks (B6) Iron Deposits (B3) Oxidized Rhizospheres (B1) Oxidized or Stressed Plants (D1) (LRR A) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Surface Soil Cracks (B6) Surface Soil Cracks (B8) Wetten Marks (B1) Surface Soil Cracks (B8) Surface Soil Cracks (B8) Oxidized Rhizospheres (B1) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Wettand Hydrology Present? Yes No X Depth (inches): Urface Water Present? Yes No X Depth (inches): Surface Soil Cracks (B8) Oxidized Rhizospheres (B1) Wettand Hydrology Present? Yes X No Expert (Inches): Surface Roorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						- 4\	4 BAL DA 4\		
Depleted Below Dark Surface (A11)							OT WILKA 1)		
Thick Dark Surface (A12) Redox Dark Surface (F6) And Surface (F7) Redox Dark Surface (F6) And Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Unless disturbed or problematic. Poepth (inches): Hydric Soil Present? Yes X No Redox Depressions (F8) Unless disturbed or problematic. Poepth (inches): Hydric Soil Present? Yes X No Redox Depressions (F8) Unless disturbed or problematic. Poepth (inches): Hydric Soil Present? Yes X No Redox Depressions (F8) Unless disturbed or problematic. Poepth (inches): Hydric Soil Present? Yes X No Redox Depressions (F8) Unless disturbed or problematic. Poepth (inches): Hydric Soil Present? Yes X No Redox Depth (inches): Water Soil Present? Yes X No Redox Depth (inches): Secondary Indicators (2 or more required to the Soil Call Call Soil Call Call Call Call Call Call Call Ca			face (A11)			2)		Other	(Explain in Remarks)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Bandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Bestrictive Layer (if present): Type:						3)		³ Indicators	of hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. setrictive Layer (if present): Type: Depth (inches):		, ,							
Type:						` '			
Pepth (inches):	estrictive	Layer (if present):						
POROLOGY Petland Hydrology Indicators:	Туре:								
// Indicators (minimum of one required: check all that apply) Surface Water (A1)	Depth (in	ches):						Hydric Soil P	resent? Yes X No
Surface Water (A1)		icv							
High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) X Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Ield Observations: urface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Surface Corded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	/DROLO		rs:						
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) X Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Drift Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) X Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)	YDROLO	drology Indicato		red; check all that ar	ylg(y)			<u>Second</u>	ary Indicators (2 or more required)
X Water Marks (B1)	/DROLO /etland Hy rimary India	drology Indicato				ves (B9) (except		
	/DROLO /etland Hy rimary India _ Surface	drology Indicato cators (minimum o Water (A1)		Water-S	Stained Lea		except	X Wa	ter-Stained Leaves (B9) (MLRA 1, 2
Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Algal Mat or Crust (B5) Presence of Reduced Iron (C4) Algal Mat or Crust (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) ield Observations: urface Water Present? Ves No X Depth (inches): Alter Table Present? Yes No X Depth (inches): Depth (inches): aturation Present? Yes No X Depth (inches): Depth (inches): Alter Table Present? Yes No X Depth (inches): Depth (inches): Alter Table Present? Yes No X Depth (inches): Depth (inches): Alter Table Present? Yes No X No X Depth (inches): Alter Table Present? Yes X No X No X Depth (inches): Alter Table Present? Yes X No X No X Depth (inches): Alter Table Present? Yes X No X No X Depth (inches): Alter Table Present? Yes X No X No X Depth (inches): Alter Table Present? Yes X No X N	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia	drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3)		Water-S MLR Salt Cru	Stained Lea A 1, 2, 4A, st (B11)	and 4B)	except	<u>X</u> Wa Dra	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10)
	/DROLO /etland Hyrimary India Surface High Wa Saturatia	drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3)		Water-S MLR Salt Cru	Stained Lea A 1, 2, 4A, st (B11)	and 4B)	except	<u>X</u> Wa Dra	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10)
	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia X Water M	drology Indicato cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1)		Water-S MLR Salt Cru Aquatic Hydroge	Stained Lea A 1, 2, 4A, Ist (B11) Invertebraten Sulfide (and 4B) tes (B13) Odor (C1)		_X Wa Dra Dry Sat	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (C
Surface Soil Cracks (B6) X Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia _ Water M _ Sedimer _ Drift Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3)		Water-S MLR Salt Cru Aquatic Hydroge Oxidize	Stained Lea A 1, 2, 4A, est (B11) Invertebraten Sulfide (d Rhizosph	and 4B) ses (B13) Odor (C1) eres along	Living Ro	Va Dra Dry Sat ots (C3) X Geo	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)	YDROLO Vetland Hy Trimary India Surface High Wa Saturatia Water M Sedimer Drift Der	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4)		Water-S MLR Salt Cru Aquatic Hydroge Oxidizer	Stained Lea A 1, 2, 4A, est (B11) Invertebraten Sulfide (d Rhizosph ce of Reduc	es (B13) Odor (C1) eres along ced Iron (C	Living Roo 4)	Va Dra Dry Sat ots (C3) X Geo Sha	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) ield Observations: urface Water Present?	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturati X Water M _ Sedimer _ Drift Dep _ Algal Ma _ Iron Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Water-S MLR Salt Cru Aquatic Hydroge Oxidizer Presenc	Stained Lea A 1, 2, 4A, Ist (B11) Invertebraten Sulfide (d Rhizosph ce of Reduc Iron Reduc	and 4B) tes (B13) Odor (C1) eres along ted Iron (C) tion in Tille	Living Roo 4) ed Soils (CC	X_ Wa Dra Dry Sat Sha Sha FAG	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
ield Observations: urface Water Present? Yes No X Depth (inches): Vater Table Present? Yes No X Depth (inches): aturation Present? Yes No X Depth (inches): aturation Present? Yes No X Depth (inches): includes capillary fringe) lescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia X Water M _ Sedimer _ Drift Der _ Algal Ma _ Iron Der _ Surface	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	of one requi	Water-S MLR Salt Cru Aquatic Hydroge Oxidizer Presence Recent X Stunted	Stained Lea A 1, 2, 4A, ist (B11) Invertebrate on Sulfide (d Rhizosph ce of Reduction	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	Living Roo 4) ed Soils (CC		ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
urface Water Present? Yes No X Depth (inches): Vater Table Present? Yes No X Depth (inches): aturation Present? Yes No X Depth (inches): modudes capillary fringe) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	/DROLO /etland Hyrrimary India _ Surface _ High Wa _ Saturatia X Water M _ Sedimer _ Drift Dep _ Algal Ma _ Iron Dep _ Surface _ Inundati	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aer	of one requi	Water-S	Stained Lea A 1, 2, 4A, ist (B11) Invertebrate on Sulfide (d Rhizosph ce of Reduction	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	Living Roo 4) ed Soils (CC		ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Vater Table Present? Yes No X Depth (inches): aturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes X No ncludes capillary fringe) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia X Water M _ Sedimen _ Drift Dep _ Algal Ma _ Iron Dep _ Surface _ Inundati _ Sparsely	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) posits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aery Vegetated Conc	of one requi	Water-S	Stained Lea A 1, 2, 4A, ist (B11) Invertebrate on Sulfide (d Rhizosph ce of Reduction	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	Living Roo 4) ed Soils (CC		ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
aturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes X No nocludes capillary fringe) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia X Water N _ Sedimen _ Drift Den _ Algal Ma _ Iron Den _ Surface _ Inundatia _ Sparsely ield Obser	drology Indicator cators (minimum of cators (minimu	of one requi al Imagery (ave Surface	Water-S	Stained Lea (A 1, 2, 4A, Ist (B11) Invertebrat en Sulfide (d Rhizosph ce of Reduc Iron Reduc or Stresse Explain in R	and 4B) tes (B13) Ddor (C1) eres along ted Iron (C tion in Tille d Plants (I	Living Roo 4) ed Soils (Co D1) (LRR A		ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
ncludes capillary fringe) lescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia X Water M _ Sedimel _ Drift Dep _ Algal Ma _ Iron Dep _ Surface _ Inundatia _ Sparsely ield Obser	drology Indicator cators (minimum of cators (minimu	of one required al Imagery (ave Surface	Water-S MLR Salt Cru Aquatic Hydroge Oxidizer Present Recent X Stunted (B7) Other (Best) (B8)	Stained Lea A 1, 2, 4A, Invertebrate en Sulfide O d Rhizosph ce of Reduct Iron Reduct or Stresse Explain in Reduct (inches):	and 4B) tes (B13) Odor (C1) eres along ted Iron (C) tion in Tille d Plants (I) temarks)	Living Roo 4) ed Soils (Co 01) (LRR A		ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
	/DROLO /etland Hy rimary India _ Surface _ High Wa _ Saturatia X Water M _ Sedimen _ Drift Dep _ Algal Ma _ Iron Dep _ Surface _ Inundatia _ Sparsely ield Obser urface Water Table	drology Indicator cators (minimum of water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerry Vegetated Concrete Present?	al Imagery (ave Surface Yes Yes	Water-S MLR	Stained Lea A 1, 2, 4A, ist (B11) Invertebraten Sulfide (d d Rhizosph de of Reductor Reductor Reductor Stresse Explain in F	and 4B) tes (B13) Odor (C1) eres along ted Iron (C) tion in Tille d Plants (I) Remarks)	Living Roo 4) ed Soils (Ce 01) (LRR A		ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
emarks:	/DROLO /etland Hyrimary India _ Surface _ High Wa _ Saturation X Water M _ Sedimen _ Drift Dep _ Algal Ma _ Iron Dep _ Surface _ Inundation _ Sparsely ield Obseriated Water Table aturation Procludes cap	drology Indicator cators (minimum of cators (minimu	al Imagery (ave Surface Yes Yes Yes	Water-S MLR	Stained Lea A 1, 2, 4A, ist (B11) Invertebrate on Sulfide (d Rhizosph ce of Reduct Iron Reduct or Stresse Explain in Reduct (inches): (inches): (inches): (inches):	and 4B) tes (B13) Odor (C1) eres along ted Iron (C tition in Tille d Plants (I	Living Roo 4) ed Soils (Co 01) (LRR A	X Wa	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
CHIGINS.	YDROLO Vetland Hydrimary India Surface High Wa Saturatio X Water M Sedimel Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely ield Obser surface Water Table saturation P	drology Indicator cators (minimum of cators (minimu	al Imagery (ave Surface Yes Yes Yes	Water-S MLR	Stained Lea A 1, 2, 4A, ist (B11) Invertebrate on Sulfide (d Rhizosph ce of Reduct Iron Reduct or Stresse Explain in Reduct (inches): (inches): (inches): (inches):	and 4B) tes (B13) Odor (C1) eres along ted Iron (C tition in Tille d Plants (I	Living Roo 4) ed Soils (Co 01) (LRR A	X Wa	ter-Stained Leaves (B9) (MLRA 1, 24A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
	YDROLO Vetland Hy Primary India Surface High Wa Saturatio X Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Gield Obser Gurface Water Table Saturation Perincludes car	drology Indicator cators (minimum of cators (minimu	al Imagery (ave Surface Yes Yes Yes	Water-S MLR	Stained Lea A 1, 2, 4A, ist (B11) Invertebrate on Sulfide (d Rhizosph ce of Reduct Iron Reduct or Stresse Explain in Reduct (inches): (inches): (inches): (inches):	and 4B) tes (B13) Odor (C1) eres along ted Iron (C tition in Tille d Plants (I	Living Roo 4) ed Soils (Co 01) (LRR A	X Wa	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
	YDROLO Vetland Hyverimary India Surface High Wa Saturatio X Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely ield Obser surface Water Table saturation P ncludes cap escribe Re	drology Indicator cators (minimum of cators (minimu	al Imagery (ave Surface Yes Yes Yes	Water-S MLR	Stained Lea A 1, 2, 4A, ist (B11) Invertebrate on Sulfide (d Rhizosph ce of Reduct Iron Reduct or Stresse Explain in Reduct (inches): (inches): (inches): (inches):	and 4B) tes (B13) Odor (C1) eres along ted Iron (C tition in Tille d Plants (I	Living Roo 4) ed Soils (Co 01) (LRR A	X Wa	ter-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)

Project/Site: Nisqually State Park		Citv/Countv	Pierce		Sampling Date: 11/2/2023
Applicant/Owner: WA State Parks		Only/ O'O'U'nly			Sampling Point: W13-SP2
Daminawan Haanaw		Section To		ange:	
Landform (hillslope, terrace, etc.): Hammocky Woods					
Subregion (LRR):					
					ation:
Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for the site ty					
Are Vegetation N, Soil N, or Hydrology N					resent? Yes X No
Are Vegetation N, Soil N, or Hydrology N SUMMARY OF FINDINGS – Attach site map				eeded, explain any answe	
		Sampini	g ponit i	ocations, transects	, important leatures, etc.
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes		ls th	e Sample	d Area	
Wetland Hydrology Present? Yes			in a Wetla		No X
Remarks: Reference NRCS Hydrotool					
VEGETATION – Use scientific names of pla	nts.				
Tree Stratum (Plot size: 30'	Absolute % Cover	Dominant Species?		Dominance Test work	
1. POBA2 Black Cottonwood	15	Y	FAC	Number of Dominant S That Are OBL, FACW,	
2.	_				
3				Total Number of Domin Species Across All Stra	_
4					 - : : :
451	15	= Total Co	ver	Percent of Dominant Sp That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size: 15')	20	V	EAC	Prevalence Index wor	ksheet:
1. ALRU Red Alder 2. POBAZ Black Cottonwood	<u>20</u> 	<u>Y</u> N	FAC FAC	Total % Cover of:	Multiply by:
3. ACCI Vine Maple	$-\frac{13}{5}$	<u>Y</u>	FAC	OBL species	x 1 =
	_	<u>'</u>	1710	FACW species	x 2 =
4					x 3 = <u>165</u>
3	- 4 0	 _ = Total Co	ver	FACU species 80	
Herb Stratum (Plot size: 5'		_			x 5 =
1. GASH Salal		<u>Y</u>		Column Totals: 135	(A) <u>485</u> (B)
2. POMU Sword Fern	_ 40	<u>Y</u>	FACU	Prevalence Index	= B/A = 3.6
3				Hydrophytic Vegetation	on Indicators:
4				1 -	lydrophytic Vegetation
5				2 - Dominance Tes	
6				3 - Prevalence Inde	
7					daptations ¹ (Provide supporting s or on a separate sheet)
8 9				5 - Wetland Non-Va	•
10					phytic Vegetation ¹ (Exp l ain)
11.					I and wetland hydrology must
···	80	= Total Cov	ver	be present, unless distu	irbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2				Vegetation Yes	s ^X No
% Bare Ground in Herb Stratum 20	0	_= Total Co	ver		
Remarks:					
Moss 10%, Hydrophytic Veg. Present					

SOIL Sampling Point: W13-SP2

	•	•	tn needed to docu		or countim	ule absence	or maicators.)
Depth (inches)	Matrix Color (moist)		Color (moist)	ox Features % Type ¹	Loc ²	Texture	Remarks
0 - 16	10 YR 4/1	100		.,,,,		Si, Lo	
				S=Covered or Coate	d Sand Gra		ation: PL=Pore Lining, M=Matrix.
-		licable to all	LRRs, unless othe	•			rs for Problematic Hydric Soils ³ :
Histosol	• •		Sandy Redox (Muck (A10)
	ipedon (A2)		Stripped Matrix	` '	MI DA 4)		Parent Material (TF2)
Black His	n Sulfide (A4)		Loamy Gleyed	Mineral (F1) (except	WILKA 1)		Shallow Dark Surface (TF12) r (Explain in Remarks)
	l Below Dark Surf	ace (A11)	Depleted Matri			Othe	(Explain in Remarks)
	rk Surface (A12)	400 (/ 111)	Redox Dark Su	, ,		³ Indicato	rs of hydrophytic vegetation and
	lucky Mineral (S1))	Depleted Dark				nd hydrology must be present,
Sandy G	leyed Matrix (S4)		Redox Depress	sions (F8)		unless	s disturbed or prob l ematic.
Restrictive L	ayer (if present)	:					
Type:							
Depth (inc	ches):					Hydric Soil	Present? Yes No X
Remarks:							
	CV						
HYDROLO							
=	drology Indicator					_	
		of one required	d; check all that app	-		, ,	dary Indicators (2 or more required)
	Water (A1)			nined Leaves (B9) (ex	xcept	w	ater-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			1, 2, 4A, and 4B)		_	4A, and 4B)
Saturatio	, ,		Salt Crust			·	rainage Patterns (B10)
	arks (B1)			vertebrates (B13)			ry-Season Water Table (C2)
	t Deposits (B2)			Sulfide Odor (C1)		_	aturation Visible on Aerial Imagery (C9)
	osits (B3)			Rhizospheres along I	_		eomorphic Position (D2)
	t or Crust (B4)			of Reduced Iron (C4		· · · · · · · · · · · · · · · · · · ·	nallow Aquitard (D3)
	osits (B5)			on Reduction in Tilled			AC-Neutral Test (D5)
	Soil Cracks (B6) on Visible on Aeria	al Imaganı (D'	· 	r Stressed Plants (D´	1) (LKK A)	· · · · · · · · · · · · · · · · · · ·	aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
_	Vegetated Conc	0 , (′ _ `	plain in Remarks)		<u> </u>	ost-neave numinocks (D7)
Field Observ		ave Surface (D0)				
Surface Wate		Yes	No X Denth (in	ches):			
Water Table				ches):			
							Present? Yes No X
Saturation Pr (includes cap		Yes	No 🔨 Depth (in	ches):	_ wetia	ina Hyarology	Present? Yes No ^
		am gauge, mo	onitoring well, aerial	photos, previous ins	pections), i	if available:	
Remarks:							

Project/Site: Nisqually State Park		City/County: _	Pierce		Sampling Date: 11/2/2023
Applicant/Owner: WA State Parks					Sampling Point: W14-SP1
Investigator(s): Dominguez, Hearsey					
Landform (hillslope, terrace, etc.): Terraced Upland					Slope (%): 2
Subregion (LRR):	Lat:			Long:	Datum:
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for thi					
Are Vegetation N , Soil N , or Hydrology N	significantly	disturbed?	Are "	Normal Circumstances" p	resent? Yes X No
Are Vegetation N , Soil N , or Hydrology N				eded, explain any answer	
SUMMARY OF FINDINGS – Attach site map			point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes X N	lo				
Hydric Soil Present? Yes X N	lo		Sampled a Wetlar	\/	No
Wetland Hydrology Present? Yes X N	lo	Within	a vveuai	id! Tes <u>**</u>	
Remarks:					
└── VEGETATION – Use scientific names of plan	ıte				
VEGETATION – Ose scientific flames of plan	Absolute	Dominant I	ndicator	Dominance Test works	sheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u>)		Species?		Number of Dominant Sp	
1		- <u> </u>		That Are OBL, FACW, o	or FAC: <u>2</u> (A)
2				Total Number of Domina	
3	_			Species Across All Strat	ta: <u>3</u> (B)
4	- 0	 _ = Total Cove		Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15'	-	Total Cove	31	That Are OBL, FACW, o	```
1. ACMA3 Big Leaf Maple	25		FACU_	Prevalence Index work	sheet: Multiply by:
2. SPDO Rose Spirea	_ 1		FACW_		x 1 = 40
3. POBA2 Cottonwood	_ 10	<u> </u>	FAC		x 2 =
4					x 3 = 10
5	26	- T-1-1 O		FACU species 25	
Herb Stratum (Plot size: 5'	20	_ = Total Cove	∍r		x 5 =
1. CAOB3 Slough Sedge	40	Y (OBL	Column Totals: 75	(A) <u>170</u> (B)
2	_	V-		Prevalence Index	= B/A = 2.26
3				Hydrophytic Vegetatio	n Indicators:
4					ydrophytic Vegetation
5				2 - Dominance Test	
6				√ 3 - Prevalence Inde	
7					daptations ¹ (Provide supporting or on a separate sheet)
8				5 - Wetland Non-Va	
10				Problematic Hydrop	ohytic Vegetation¹ (Explain)
11.					and wetland hydrology must
	85	_= Total Cove	r	be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)					
1	_			Hydrophytic	
2	0	- Total Oass		Vegetation Present? Yes	s <u>X</u> No
% Bare Ground in Herb Stratum 50	-	_= Total Cove	1		
Remarks:					
Moss 10%					

SOIL Sampling Point: W14-SP1

Depth	Profile Description: (Describe to the depth needed to document the indicator or confined between the indicator of the indicator or confined between the indicator of the indicator or confined between the indicat							o or marcators.		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²		Remarks		
0 - 1	10 YR 2/1	_ 100_				_	Sa, Lo			
1 - 16	10 YR 4/1	<u> 75</u>	7.5 YR 5/6	10	<u>C</u>	<u>M</u>	Si, Cl	With sand gravel		
						_				
						_				
						_	·			
					_	_				
1			· - · · · · · · · · · · · · · · · · · ·				2.			
	oncentration, D=De Indicators: (Appl					ited Sand G		cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :		
Histosol		icabic to a	Sandy Redo		tou.,			m Muck (A10)		
	pipedon (A2)		Stripped Ma					d Parent Material (TF2)		
	istic (A3)		Loamy Muck		-1) (exce	pt MLRA 1		ry Shallow Dark Surface (TF12)		
Hydroge	en Su l fide (A4)		Loamy Gley					ner (Explain in Remarks)		
	d Below Dark Surfa	ace (A11)	X Depleted Ma				2			
	ark Surface (A12)		Redox Dark					ors of hydrophytic vegetation and		
	Mucky Mineral (S1) Gleyed Matrix (S4)		Depleted Da					and hydrology must be present, ss disturbed or problematic.		
	Layer (if present):	<u> </u>	Redox Depi	essions (Fo,	,		unie:	ss disturbed of problematic.		
Type:	Layor (ii procont)									
Depth (in							Hydric Soi	I Present? Yes X No		
Remarks:										
HYDROLO										
•	drology Indicator		ad: abook all that a	nnlu)			Sooo	ndary Indicators (2 or more required)		
$\overline{\mathbf{v}}$	Water (A1)	one requir			voc (B0)	(ovcont		ndary Indicators (2 or more required) Nator Stained Leaves (B9) (MLRA 1.2)		
	ater Table (A2)		·	Stained Lea [.] RA 1, 2, 4A,				Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)		
X Saturati				ust (B11)	anu 4b)		Г	Orainage Patterns (B10)		
	/larks (B1)			: Invertebrat	es (B13)			Dry-Season Water Table (C2)		
·	nt Deposits (B2)			en Sulfide C				Saturation Visible on Aerial Imagery (C9)		
	posits (B3)						ots (C3) X	Geomorphic Position (D2)		
	at or Crust (B4)			ce of Reduc		-		Shallow Aquitard (D3)		
Iron De	posits (B5)		Recent	Iron Reduc	tion in Til	led Soi l s (C	.6) F	FAC-Neutral Test (D5)		
	Soil Cracks (B6)		X Stunted			(D1) (LRR	,	Raised Ant Mounds (D6) (LRR A)		
	ion Visib l e on Aeria			Exp l ain in R	emarks)		F	Frost-Heave Hummocks (D7)		
	y Vegetated Conca	ve Surface	(B8)							
Field Obser			Y							
Surface Wat		Yes	No X Depth	(inches):	1					
Water Table			No Depth					X		
Saturation P	resent? pillary fringe)	Yes <u>^</u>	No Depth	(inches): 3		Wet	land Hydrolog	y Present? Yes X No		
	corded Data (strea	m gauge, n	nonitoring well, aer	ia l photos, p	revious i	nspections)	, if available:			
Remarks:										

Project/Site: Nisqually State Park		City/Count	y: Pierce	Sampling Date: <u>11/2/2023</u>		
Applicant/Owner: WA State Parks					Sampling Point: W14-SP2	
Investigator(s): Dominguez, Hearsey				nge:		
Landform (hillslope, terrace, etc.): Hammocky Woods		Local relie	f (concave,	convex, none): Convex	Slope	(%): <u>6</u>
Subregion (LRR):	Lat:			Long:	Datum:	
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for	this time of ye	ar? Yes X	No_	(If no, explain in R	emarks.)	
Are Vegetation N , Soil N , or Hydrology N	_ significantly	disturbed?	Are '	'Normal Circumstances" p	resent? Yes X	No
Are Vegetation N , Soil N , or Hydrology N	_ naturally pro	blematic?	(If ne	eeded, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	p showing	samplir	na point l	ocations. transects	. important feat	ures. etc.
Hydrophytic Vegetation Present? Yes			-9		,	,
Hydric Soil Present? Yes			he Sampled		V	
Wetland Hydrology Present? Yes	No <u>X</u>	witl	hin a Wetlar	nd? Yes	No X	
Remarks:						
Reference NRCS Hydrotool						
VECETATION Line exicutific names of plant						
VEGETATION – Use scientific names of pla	Absolute	Dominan	t Indicator	Dominance Test work	shoot:	
<u>Tree Stratum</u> (Plot size: <u>30'</u>)		Species?		Number of Dominant S		
1. PSME Douglas Fir	30	. <u>Y</u>	FACU	That Are OBL, FACW,		(A)
2. POBAZ Black Cottonwood	$-\frac{40}{45}$	Y	FAC	Total Number of Domin	ant	
3. FRLA Oregon Ash	15	<u>N</u>	FACW_	Species Across All Stra	ta: <u>4</u>	(B)
4				Percent of Dominant Sp		
Sapling/Shrub Stratum (Plot size: 15'		_ = Total C	over	That Are OBL, FACW, o	<u> </u>	(A/B)
1. HODI Ocean Spray	3	<u>N</u>	UPL	Prevalence Index work		
2. ACCI Vine Maple	40	<u>Y</u>	FAC	OBL species	Multiply b	<u>-</u>
3. ACMA3 Big Leaf Maple	5	<u>N</u>	<u>FACU</u>	FACW species		
4			_	FAC species		
5	48			FACU species		
Herb Stratum (Plot size: 5'	40	_ = Total C	over	UPL species	x 5 =	
1. GASH Salal	85	<u>Y</u>	FACU	Column Totals:	(A)	(B)
2. POMU Sword Fern	10	<u>Y</u>	FACU	Prevalence Index	= B/A =	
3				Hydrophytic Vegetation		
4				1 - Rapid Test for H	lydrophytic Vegetatio	on
5				2 - Dominance Tes		
6				3 - Prevalence Inde		
7				4 - Morphological A	daptations¹ (Provide) s or on a separate sh	supporting
8 9				5 - Wetland Non-Va		icci)
10				Problematic Hydro		xp l ain)
11.		-	-	¹ Indicators of hydric soi	and wetland hydrole	ogy must
	95	_= Total Co	ver	be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size:)		_				
1		· -		Hydrophytic		
2	^			Vegetation Present? Yes	s No X	
% Bare Ground in Herb Stratum 5	-	_= Total Co	over			
Remarks:				l .		

SOIL Sampling Point: W14-SP2

Profile Desc	ription: (Descri	be to the de	pth needed	d to docum	ent the i	ndicator	or confirm	n the absence of indicators.)				
Depth	Matrix				K Features	3						
(inches)	Color (moist)		Color	(moist)	<u></u> %	Type ¹	Loc ²	Texture Remarks				
0 - 5	10 YR 3/2	100	_					Sa, Lo				
5 - 16	10 YR 3/3	100						Sa, Lo				
			_				-					
			-				-					
							-					
¹ Type: C=Co	oncentration, D=D	epletion, RI	M=Reduced	Matrix, CS	=Covered	l or Coate	ed Sand Gr					
Hydric Soil I	ndicators: (App	licable to a	II LRRs, un	less other	wise note	ed.)		Indicators for Problematic Hydric Soils ³ :				
Histosol	(A1)		Sand	y Redox (S	S5)			2 cm Muck (A10)				
Histic Ep	pipedon (A2)		Stripp	oed Matrix	(S6)			Red Parent Material (TF2)				
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1							MLRA 1)					
Hydroge	n Sulfide (A4)		Loam	ny Gleyed N	∕latrix (F2)		Other (Explain in Remarks)				
	d Below Dark Sur	face (A11)		eted Matrix								
	ark Surface (A12)			x Dark Sur	, ,			³ Indicators of hydrophytic vegetation and				
	lucky Mineral (S1			eted Dark S		7)		wetland hydrology must be present,				
	leyed Matrix (S4)		Redo	x Depressi	ons (F8)			unless disturbed or problematic.				
Restrictive L	_ayer (if present):										
Type:												
Depth (inc	ches):							Hydric Soil Present? Yes No X				
Remarks:												
HYDROLO	GY											
Wetland Hyd	drology Indicato	rs:										
Primary Indic	ators (minimum d	of one requir	ed; check a	ll that apply	<i>(</i>)			Secondary Indicators (2 or more required)				
Surface '	Water (A1)			Water-Stai	ned Leave	es (B9) (e	xcept	Water-Stained Leaves (B9) (MLRA 1, 2,				
	iter Table (A2)				I, 2, 4A, a		•	4A, and 4B)				
Saturation				Salt Crust		,		Drainage Patterns (B10)				
	arks (B1)		· 	Aquatic Inv		s (B13)		Dry-Season Water Table (C2)				
	nt Deposits (B2)			Hydrogen S				Saturation Visible on Aerial Imagery (C9)				
·	posits (B3)		·				Livina Roo	ots (C3) Geomorphic Position (D2)				
	it or Crust (B4)			Presence of		_	_	Shallow Aquitard (D3)				
	osits (B5)		·	Recent Iron								
-												
	Soil Cracks (B6)	-1 1		Stunted or			I) (LKK A					
	on Visib l e on Aeri			Other (Exp	iam in Ke	marks)		Frost-Heave Hummocks (D7)				
	Vegetated Conc	ave Surrace	(60)									
Field Observ			Y									
Surface Wate			. No X									
Water Table	Present?		No X									
Saturation Pr		Yes	No X	Depth (inc	:hes):		Wetla	land Hydrology Present? Yes No X				
(includes cap	oillary fringe) corded Data (stre	am dalide r	nonitoring w	ell aerial n	hotos pr	avious inc	nections)	if available:				
Pescine VE	Joined Data (Sile	am gauge, I	nomioning w	on, acriai p	motos, pit	vious IIIS	pecilo113),	ii avaijabje.				
Damini												
Remarks:												

Project/Site: Nisqually State Park		City/County:	Pierce	Sampling Date: 11/2/2023				
Applicant/Owner: WA State Parks					Sampling Point: W15-SP1			
Investigator(s): Dominguez, Hearsey								
Landform (hillslope, terrace, etc.): Sloped Bottomland			· ·	•	Slope (%): 2			
Subregion (LRR):								
Soil Map Unit Name:								
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation N, Soil N, or Hydrology N, si	_				resent? Yes X No			
Are Vegetation N, Soil N, or Hydrology N, na				eeded, explain any answer				
SUMMARY OF FINDINGS – Attach site map s			•		·			
Hydrophytic Vegetation Present? Yes X No			g point i		important reatures, etc.			
Hydric Soil Present? Yes X No)		e Sampled					
Wetland Hydrology Present? Yes X No		within a Wetland? Yes X No						
Remarks:								
VEGETATION – Use scientific names of plant	s.							
Tree Stratum (Plot size: 30'	Absolute % Cover	Dominant Species?		Dominance Test works				
1 POBA2 Black Cottonwood	55	Y	FAC	Number of Dominant Sp That Are OBL, FACW, o				
2.					<u> </u>			
3.				Total Number of Domina Species Across All Strat	4			
4.					、,			
15'	0	_ = Total Co	ver	Percent of Dominant Sp That Are OBL, FACW, of				
Sapling/Shrub Stratum (Plot size: 15') 1. THPL Red Cedar	25	N	FAC	Prevalence Index work	(sheet:			
2. SYAL Common Snowberry	1	N N	FACW	Total % Cover of:	Multiply by:			
3. ACCI Vine Maple / ACMA3 Big Leaf Maple	30/5	<u>Y</u>	FACU/FAC		x 1 = <u>80</u>			
4 COCO6 Beaked Hazlenut	5		FACU	FACW species 1				
5. POBA2 Black Cottonwood	40	Y	FAC	FAC species 135	$\times 3 = 405$			
	106	_ = Total Co	ver	FACU species 35				
Herb Stratum (Plot size: 5')	00	V	ODI	UPL species Column Totals: 251	x = 5 = 627 (B)			
1. CAOB3 Slough Sedge	80	<u>Y</u>	OBL					
2				Prevalence Index				
3				Hydrophytic Vegetatio				
4. 5.				1 - Rapid Test for H				
6				2 - Dominance Tesi 3 - Prevalence Inde				
7.				l 	daptations ¹ (Provide supporting			
8.					or on a separate sheet)			
9				5 - Wetland Non-Va				
10				- 	ohytic Vegetation ¹ (Exp l ain)			
11				Indicators of hydric soil be present, unless distu	and wetland hydrology must			
Woody Vine Stratum (Plot size:)	80	_= Total Cov	er	be present, amess dista	Thea or problematio.			
1				I hadronlovái o				
2.				Hydrophytic Vegetation				
	0	 _= Total Cov	er	Present? Yes	s <u>X</u> No			
% Bare Ground in Herb Stratum 20	_							
Remarks: Moss 10%								
10/0								

SOIL Sampling Point: W15-SP1

Depth	Matrix	<		- eatures			•		
(inches)	Color (moist)		Color (moist)	<u>%</u> <u>Type</u> ¹	Loc ²	Texture	Remarks		
0-9	10 YR 2/1	100				<u>Lo</u>			
9 - 16	10 YR 4/1	85	7.5 YR 4/4	<u>C</u>	_ <u>M</u>				
			2.5 Y 6/3	D	<u>M</u>				
	•								
	-								
			I=Reduced Matrix, CS=		ed Sand G		n: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (App	licable to a	I LRRs, unless otherw	ise noted.)		Indicators f	or Problematic Hydric Soils ³ :		
Histoso			Sandy Redox (S5	,			uck (A10)		
	pipedon (A2)		Stripped Matrix (S				rent Material (TF2)		
	listic (A3)		Loamy Mucky Mir		ot MLRA 1)		allow Dark Surface (TF12)		
	en Sulfide (A4) d Below Dark Sur	face (A11)	Loamy Gleyed Ma X Depleted Matrix (F			Other (E	Explain in Remarks)		
	ark Surface (A12)		Redox Dark Surfa			³ Indicators o	f hydrophytic vegetation and		
_	Mucky Mineral (S1		Depleted Dark Su	` '			ydrology must be present,		
	Gleyed Matrix (S4)		Redox Depression				sturbed or problematic.		
	Layer (if present						·		
Туре:									
Depth (in	iches):					Hydric Soil Pre	sent? Yes X No		
UVDBOL C	ncv								
HYDROLO									
-	drology Indicato					Casandan	In dia atawa (2) ay wasana wa wakina di		
•		or one require	ed; check all that apply)	ad Looves (PO)	oveent		y Indicators (2 or more required)		
	Water (A1)			ed Leaves (B9) (except		r-Stained Leaves (B9) (MLRA 1, 2,		
	ater Table (A2)		•	2, 4A, and 4B)			A, and 4B)		
Saturati	/larks (B1)		Salt Crust (B Aquatic Inve			X Drainage Patterns (B10)Dry-Season Water Table (C2)			
	nt Deposits (B2)		Aquatic Invel				ation Visible on Aerial Imagery (C9		
	posits (B3)				a Livina Roc		norphic Position (D2)		
	at or Crust (B4)		Oxidized Kill Presence of		-		ow Aquitard (D3)		
Iron De			Recent Iron	•	•		Neutral Test (D5)		
	Soil Cracks (B6)		Stunted or S				ed Ant Mounds (D6) (LRR A)		
	ion Visib l e on Aeri	al Imagery (I			/ (=: / (-Heave Hummocks (D7)		
	y Vegetated Conc						()		
Field Obser			· ,						
Surface Wa	ter Present?	Yes X	No Depth (inch	es):					
Water Table			No Depth (inch						
Saturation F			No Depth (inch			and Hydrology Pr	esent? Yes X No		
(includes ca	pillary fringe)								
Describe Re	ecorded Data (stre	am gauge, n	nonitoring well, aerial ph	otos, previous ir	spections),	if available:			
Remarks:									

Project/Site: Nisqually State Park		City/County	: Pierce	Sampling Date: 11/2/2023		
Applicant/Owner: WA State Parks					Sampling Point: W15-SP2	
Investigator(s): Dominguez, Hearsey						
Landform (hillslope, terrace, etc.): Hammocky Woo					Slope (%): 5	
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical						
Are Vegetation N, Soil N, or Hydrology N					resent? Yes X No	
Are Vegetation N, Soil N, or Hydrology N				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site i			•	•	·	etc.
	No			<u></u>	<u> </u>	
Hydric Soil Present? Yes	No X		e Sample		N. X	
Wetland Hydrology Present? Yes	No X	with	in a Wetla	nd? Yes	No X	
Remarks: Reference NRCS Hydrotool VEGETATION – Use scientific names of	plants.					
	Absolute	Dominant		Dominance Test work	sheet:	
Tree Stratum (Plot size: 30' 1. PSME Douglas Fir	<u>% Cover</u> 10	Species?	Status FACU	Number of Dominant Sp		,
2. POBAZ Black Cottonwood	$\frac{10}{30}$	<u>Y</u>	FAC	That Are OBL, FACW, o	or FAC: 3 (A))
3.		<u>·</u>		Total Number of Domin	E	١
4				Species Across All Stra	ia. <u>-</u> (b)	,
	40	= Total Co	ver	Percent of Dominant Sp That Are OBL, FACW, of		/B)
Sapling/Shrub Stratum (Plot size: 15'		-		Prevalence Index wor	si 1716: (70	
1. SYAL Common Snowberry	30	<u>Y</u>	FACU		Multiply by:	
2. PHCAII Pacific Nineback	<u>40</u> 20	<u>Y</u>	FAC		x 1 = 1	
3. POBAZ Black Cottonwood	20	<u> </u>	FAC		x 2 =	
4					x 3 = 270	
5	90			FACU species 90	x 4 = 360	
Herb Stratum (Plot size: 5'		_ = Total Co	ver		x 5 =	
1. CAOB3 Slough Sedge	1	<u>N</u>	OBL	Column Totals: 181	(A) <u>631</u> (E	B)
2. POMU Sword Fern	40	<u>Y</u>	FACU	Prevalence Index	= B/A = 3.49	
3. RUUR Trailing Blackberry	10	<u>N</u>	FACU	Hydrophytic Vegetation		
4				1 - Rapid Test for H	lydrophytic Vegetation	
5				2 - Dominance Tes	t is >50%	
6				3 - Prevalence Inde	ex is ≤3.0 ¹	
7				4 - Morphological A	daptations ¹ (Provide supporti	ing
8				5 - Wetland Non-Va	s or on a separate sheet)	
9					ohytic Vegetation¹ (Explain)	
10					I and wetland hydrology must	+
11				be present, unless distu		
Woody Vine Stratum (Plot size:)		_= Total Cov	/er			
1				Hydrophytic		
2				Vegetation	_ X N=	
W.B. G. H. H. G. J. 15	0	= Total Cov	/er	Present? Yes	s <u>X</u> No	
% Bare Ground in Herb Stratum 15 Remarks:						
Inclinative.						

SOIL Sampling Point: W15-SP2

Profile Desc	ription: (Descri	be to the d	epth neede	d to docun	nent the i	ndicator	or confirm	the absend	ce of indicators.)
Depth	Matrix		_		x Features	3			
(inches)	Color (moist)		<u>Color</u>	(moist)	%	Type ¹	Loc ²	Texture	Remarks
<u>0 - 13</u>	10 YR 3/1	100_						Lo	Loam w/ Gravel
			_						-
			_				-		
			_						
	oncentration, D=D						ed Sand Gr		ocation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (App	olicable to a	all LRRs, u	nless other	wise note	ed.)		Indica	itors for Problematic Hydric Soils ³ :
Histosol	(A1)		San	dy Redox (S	S5)			2	cm Muck (A10)
Histic Ep	oipedon (A2)		Strip	ped Matrix	(S6)			R	ed Parent Material (TF2)
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA							t MLRA 1)		ery Shallow Dark Surface (TF12)
	n Sulfide (A4)			my G l eyed I)		0	ther (Explain in Remarks)
	d Be l ow Dark Sur			leted Matrix				•	
	ark Surface (A12)			ox Dark Sui					ators of hydrophytic vegetation and
	lucky Mineral (S1			leted Dark S		7)			tland hydrology must be present,
	leyed Matrix (S4)		Red	ox Depress	ions (F8)			uni	ess disturbed or problematic.
	_ayer (if present):							
Type:									v
Depth (inc	ches):							Hydric So	oil Present? Yes No X
Remarks:									
	CV								
HYDROLO									
-	drology Indicato								
Primary Indic	cators (minimum o	of one requi	red; check a					<u>Sec</u>	condary Indicators (2 or more required)
Surface	Water (A1)		_	Water-Stai	ned Leave	es (B9) (e	xcept		Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ter Tab l e (A2)			MLRA	1, 2, 4A, a	nd 4B)			4A, and 4B)
Saturatio	on (A3)			Salt Crust	(B11)				Drainage Patterns (B10)
Water M	arks (B1)		_	Aquatic Inv	ertebrates	s (B13)			Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)			Hydrogen	Sulfide Od	lor (C1)			Saturation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)			Oxidized R	Rhizospher	es along	Living Roc	ots (C3)	Geomorphic Position (D2)
Algal Ma	it or Crust (B4)		_	Presence of	of Reduce	d Iron (C4	4)		Shallow Aquitard (D3)
Iron Dep	osits (B5)		_	Recent Iro	n Reductio	on in Tille	d Soi l s (C6	S)	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)			Stunted or	Stressed	Plants (D	1) (LRR A)	Raised Ant Mounds (D6) (LRR A)
Inundation	on Visib l e on Aeri	ial Imagery	(B7)	Other (Exp	lain in Re	marks)			Frost-Heave Hummocks (D7)
Sparsely	Vegetated Cond	ave Surface	e (B8)						
Field Observ	vations:								
Surface Wate	er Present?	Yes	_ _{No} X	Depth (inc	ches):				
Water Table	Present?			Depth (inc			I		
Saturation Pr				Depth (inc				and Hydrold	ogy Present? Yes No X
(includes cap				_ Doptii (iiit			_ '''	uay a o	
Describe Red	corded Data (stre	am gauge, i	monitoring v	well, aeria l p	hotos, pre	evious ins	pections),	if available:	
Remarks:									

Project/Site: Nisqually State Park
Section, Township, Range: None Local relief (concave, convex, none): Concave Slope (%): <1
Landform (hillslope, terrace, etc.): Sloped Bottomland Local relief (concave, convex, none): Concave Slope (%): <1 Subregion (LRR):
Subregion (LRR):
Soil Map Unit Name:
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 (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Set N
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 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 X No
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Hydric Soil Present? Yes X No
Hydrophytic Vegetation Present?
Hydric Soil Present? Yes X No
No No No No No No No No
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30'
Absolute Dominant Indicator Species? Status 1. POBA2 Black Cottonwood 15 Y FAC 3. 4. 5.
Absolute Dominant Indicator Species? Status 1. POBA2 Black Cottonwood 15 Y FAC 3. 4. 5.
Absolute Dominant Indicator Species? Status 1. POBA2 Black Cottonwood 15 Y FAC 2.
Tree Stratum (Plot size: 30') % Cover 5pecies? Status 15 Y FAC Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) 1. POBA2 Black Cottonwood 15 Y FAC Total Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) 3
1. POBA2 Black Cottonwood 15 Y FAC That Are OBL, FACW, or FAC: 4 (A) 2
2
3
Sapling/Shrub Stratum (Plot size: 15' 15 = Total Cover
Sapling/Shrub Stratum (Plot size: 15') 10
1. POBA2 Black Cottonwood 10 Y FAC Prevalence Index worksneet: 2. ALRU Red Alder 40 Y FAC Total % Cover of: Multiply by: 3
2. ALRU Red Alder 40 Y FAC Total % Cover of: OBL species Multiply by: X1 = 25 3. 4. FAC species FACW species x2 = FAC species x3 = 195
3
4 FACV species x 2 FACV species x 3 = 195
FAC species x 3 = x
$\frac{50}{50} = \text{Total Cover}$ FACU species $\frac{10}{50} \times 4 = \frac{40}{50}$
Herb Stratum (Plot size: 5'
1. CAOBO clought deage (i) (b)
2. POMU Sword Fern 10 Y FACU Prevalence Index = B/A = 2.6
3 Hydrophytic Vegetation Indicators:
4 1 - Rapid Test for Hydrophytic Vegetation
5
6
7 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9 5 - Wetland Non-Vascular Plants ¹
10 Problematic Hydrophytic Vegetation ¹ (Explain)
11. Indicators of hydric soil and wetland hydrology must
be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)
1 Hydrophytic
2
% Bare Ground in Herb Stratum 50
Remarks:

SOIL Sampling Point: W16-SP1

Profile Desc	cription: (Describ	e to the dep	oth needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)			
Depth	<u>Matrix</u>		Redo	x Feature	es						
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0 - 10	7.5 YR 3/1	100					Si/Lo				
10 - 16	7.5 YR 3/1	80	7.5 YR 5/2	17	D	М					
			7.5 YR 4/6	3		M					
					_						
				-	_						
			=Reduced Matrix, C			ed Sand Gr		cation: PL=Pore Lining, M=Matrix.			
		licable to all	LRRs, unless othe		ted.)			ors for Problematic Hydric Soils ³ :			
Histosol	. ,		Sandy Redox (,			·——	m Muck (A10)			
	pipedon (A2)		Stripped Matrix		4) /	4 BAL DA 4\		d Parent Material (TF2)			
	istic (A3) en Su l fide (A4)		Loamy Mucky I Loamy Gleyed			t WLKA 1)	LRA 1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
	d Below Dark Surf	ace (A11)	X Depleted Matrix		۷)		0	er (Explain in Remarks)			
	ark Surface (A12)	ace (ATT)	Redox Dark Su)		³ Indicate	ors of hydrophytic vegetation and			
	/lucky Mineral (S1)	Depleted Dark					and hydrology must be present,			
	Bleyed Matrix (S4)		Redox Depress	•				ss disturbed or problematic.			
	Layer (if present)			, ,				·			
Type:											
Depth (in	ches):						Hydric Soil	Present? Yes X No			
Remarks:	,						,				
HYDROLO	GY										
		<u> </u>									
1	drology Indicator		ale ale a ale a III die ad a consi	L A			0				
		r one require	d; check all that app		(50) (ndary Indicators (2 or more required)			
	Water (A1)		Water-Sta			except	v	Vater-Stained Leaves (B9) (MLRA 1, 2,			
	ater Table (A2)			1, 2, 4A,	and 4B)		_	4A, and 4B)			
Saturation			Salt Crust				· · · · · · · · · · · · · · · · · · ·	Orainage Patterns (B10)			
Water M			Aquatic In					Ory-Season Water Table (C2)			
·	nt Deposits (B2)		Hydrogen		. ,			Saturation Visible on Aerial Imagery (C9)			
-	posits (B3)				_	Living Roo		Geomorphic Position (D2)			
	at or Crust (B4)		Presence					Shallow Aquitard (D3)			
	posits (B5)					d Soils (C6		FAC-Neutral Test (D5)			
	Soil Cracks (B6)		Stunted o			01) (LRR A	_	Raised Ant Mounds (D6) (LRR A)			
	on Visible on Aeria			plain in R	emarks)		<u> </u>	rost-Heave Hummocks (D7)			
	Vegetated Conc	ave Surface ((B8)								
Field Obser			Y								
Surface Wat			No X Depth (in			l l					
Water Table	Present?		No X Depth (in			l l		V			
Saturation P (includes car	oillary fringe)		No X Depth (in					y Present? Yes X No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
<u> </u>											
Remarks:											
1											

Project/Site: Nisqually State Park			City/Co	ounty: Pi	ierce		Sampling Date	e: 12/11/2023	
Applicant/Owner: WA State Parks							Sampling Poir		
Investigator(s): Dominguez x2					nship, Range: None				
Landform (hillslope, terrace, etc.): Slo							vex s	Slope (%): _7	
Subregion (LRR):									
Soil Map Unit Name:									
Are climatic / hydrologic conditions on									
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$, o		-						X No	
Are Vegetation \overline{N} , Soil \overline{N} , o							nswers in Remarks.)		
SUMMARY OF FINDINGS -					ooint le	ocations, trans	ects, important	features, etc.	
Hydrophytic Vegetation Present?	Yes					_			
Hydric Soil Present?	lydric Soil Present? Yes No X			Is the S within a			No X		
Wetland Hydrology Present?	Yes	No <u>x</u>		Within	a vvctiai	10: 103			
Remarks:									
VEGETATION – Use scientifi	c names of nla	ante							
TEGETATION GOC GOLORUM	o names of pro-	Absolute	Domi	inant Inc	dicator	Dominance Test	worksheet:		
)	% Cover	Spec	cies? S	tatus	Number of Domina	ant Species		
1. ACMA3 Big Leaf Maple			<u>Y</u>	F/	ACU	That Are OBL, FA		(A)	
2						Total Number of D			
3						Species Across Al	ll Strata: 3	(B)	
4						Percent of Domina	ant Species		
Sapling/Shrub Stratum (Plot size: 1	5')	20	_ = Tota	al Cover		That Are OBL, FA		(A/B)	
1. ALRU Red Alder	/	25	Υ	FA	AC	Prevalence Index			
2.						-	r of: Mul		
3							x 1 = _		
4							x 2 = _ x 3 = _		
5							x 4 =		
Herb Stratum (Plot size: 5'	,	25	_ = Tota	al Cover			x 5 = _		
1. POMU Sword Fern)	65	Υ	FA	ACU	Column Totals: _			
2									
3.							Index = B/A =etation Indicators:		
4.						1	t for Hydrophytic Ve		
5							e Test is >50%	-	
6						3 - Prevalence	e Index is ≤3.0¹		
7						4 - Morpholog	ical Adaptations ¹ (P	rovide supporting	
8							marks or on a separ	,	
9							lon-Vascular Plants ¹ lydrophytic Vegetatio		
10						I .	ic soil and wetland h		
11				— — al Cover			s disturbed or proble		
Woody Vine Stratum (Plot size:)		TOIA	al Cover					
1						Hydrophytic			
2						Vegetation	Voc. N-	×	
O/ Dana Crawad in 11 to 15 Olivet		0	_= Tota	al Cover		Present?	Yes No		
% Bare Ground in Herb Stratum									
Significant moss on grou	nd								
organicant moss on grou	Hu								

SOIL Sampling Point: W16-SP2

Profile Desc	ription: (Describ	e to the dept	h needed to docum	ent the indicator or co	onfirm the ab	sence of indicato	ors.)			
Depth	<u>Matrix</u>			Features 1 1						
(inches) 0 - 16	Color (moist)	100	Color (moist)	<u>%</u> <u>Type¹ Lo</u>		ture	Remarks			
0 - 16	7.5 YR 3/2	_ 100			Si/Lo					
	-									
Type: C=Co	oncentration D=D	— ——— en l etion RM=	Reduced Matrix CS:	Covered or Coated Sa	and Grains	² l ocation: Pl =	Pore Lining, M=I			
			RRs, unless other			ndicators for Prob				
Histosol			Sandy Redox (S	·		2 cm Muck (A10	-			
	pipedon (A2)		Stripped Matrix (•	_	Red Parent Material (TF2)				
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1					RA 1)					
	n Sulfide (A4)		Loamy Gleyed M		, <u> </u>	Other (Explain in Remarks)				
Depleted	Below Dark Surf	ace (A11)	Depleted Matrix	(F3)						
	ark Surface (A12)		Redox Dark Surf	, ,	³ I	ndicators of hydrop	-			
	lucky Mineral (S1)		Depleted Dark S			wetland hydrolog	-	nt,		
	leyed Matrix (S4)		Redox Depression	ons (F8)		unless disturbed	or problematic.			
	_ayer (if present)									
Type:								~		
Depth (inc	ches):				Hydr	ic Soil Present?	Yes	No <u>X</u>		
Remarks:										
HYDROLO	CV									
_	drology Indicator									
-		f one required	; check all that apply			Secondary Indica				
	Water (A1)		· · · · · · · · · · · · · · · · · · ·	ied Leaves (B9) (excep	pt	· 	d Leaves (B9) (I	√ILRA 1, 2,		
	ter Tab l e (A2)			, 2, 4A, and 4B)		4A, and 4	•			
Saturation	, ,		Salt Crust (Drainage Patterns (B10)				
	arks (B1)			ertebrates (B13)		Dry-Season \				
·	nt Deposits (B2)			sulfide Odor (C1)		Saturation Vi		nagery (C9)		
	oosits (B3)			nizospheres a l ong Livin	ng Roots (C3)		, ,			
	it or Crust (B4)			f Reduced Iron (C4)		Shallow Aqui				
	osits (B5)			Reduction in Tilled So		FAC-Neutral				
	Soil Cracks (B6)			Stressed Plants (D1) (L	RR A)		lounds (D6) (LR	•		
_	on Visib l e on Aeria	• • •	· - · · ·	ain in Remarks)		Frost-Heave	Hummocks (D7)			
	Vegetated Conca	ive Surface (E	38)	1						
Field Obser	vations:		V							
Surface Wate	er Present?			nes):						
Water Table	Present?			nes):						
Saturation P		Yes I	No $\frac{X}{}$ Depth (incl	nes):	Wetland Hy	drology Present?	Yes	No <u>X</u>		
(includes cap		m aguas	nitoring well seriel =	actos, provious inspect	tions) if sucils	ıblo:				
Describe Rec	Joided Data (Střea	ıııı gauge, mo	intoring well, aerial pi	notos, previous inspect	iions), ii avalla	ivie.				
Remarks:										

Project/Site: Nisqually State Park		City/County	Pierce	Sampling Date: 12/11/2023	
Applicant/Owner: WA State Parks				State: WA	Sampling Point: W17-SP1
Investigator(s): Dominguez x2		Section, To	wnship, Ra	_{inge:} None	
					Slope (%): <1
Subregion (LRR):	Lat:			Long:	Datum:
Soil Map Unit Name:				NWI classific	ation:
Are climatic / hydrologic conditions on the site typical for the	nis time of ye	ar? Yes X	No _	(If no, explain in R	emarks.)
Are Vegetation N , Soil N , or Hydrology N	significantly	disturbed?	Are '	"Normal Circumstances" p	resent? Yes X No
Are Vegetation N , Soil N , or Hydrology N	naturally pro	blematic?	(If ne	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplin	a point l	ocations, transects	. important features, etc.
Hydrophytic Vegetation Present? Yes X		<u> </u>	<u> </u>	•	, ,
Hydric Soil Present? Yes X			e Sampled		
Wetland Hydrology Present? Yes X		with	in a Wetla	nd? Yes <u>^</u>	No
Remarks:					
VECETATION Line exicutific names of plan	nto				
VEGETATION – Use scientific names of pla	Absolute	Dominant	Indicator	Dominance Test work	shoot:
Tree Stratum (Plot size: 30'		Species?		Number of Dominant St	
1				That Are OBL, FACW, o	0
2				Total Number of Domin	•
3				Species Across All Stra	ta: <u>2</u> (B)
4		= Total Co		Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15'		-	vei	That Are OBL, FACW, or Prevalence Index work	
1. ALRU Red Alder	15	<u>Y</u>	FAC	Total % Cover of:	
2					x 1 = 40
3					x 2 =
4					x 3 = 45
5	50	= Total Co		FACU species	x 4 =
Herb Stratum (Plot size: 5')		_ = 10tal C0	vei		x 5 =
1. CAOB3 Slough Sedge	40	<u>Y</u>	OBL	Column Totals: 55	(A) <u>85</u> (B)
2				Prevalence Index	= B/A = 1.55
3				Hydrophytic Vegetation	n Indicators:
4					lydrophytic Vegetation
5				2 - Dominance Tes	
6				3 - Prevalence Inde	
7				4 - Morphological A	daptations ¹ (Provide supporting s or on a separate sheet)
8 9				5 - Wetland Non-Va	·
10.					ohytic Vegetation¹ (Explain)
11.				¹ Indicators of hydric soil	l and wetland hydrology must
	40	 _= Total Co	/er	be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2	_ 			Vegetation Present? Yes	s <u>X</u> No
% Bare Ground in Herb Stratum 60	-	_= Total Co	ver		_
Remarks:					

SOIL Sampling Point: W17-SP1

Profile Des	cription: (Describ	e to the depth	needed to docu	ment the i	ndicator	or confirm	the absen	ce of indicators.)
Depth	Matrix			ox Feature	s1	. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 16	10 YR 4/2	_ <u>100</u> _					Si/Cl	
				_				<u></u>
	-							
								_
				_				
				_				_
								_
-								_
				_				
	Concentration, D=D					d Sand Gr		_ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to all LR			ed.)			ators for Problematic Hydric Soils ³ :
Histoso	` '	_	_ Sandy Redox (cm Muck (A10)
	pipedon (A2)		_ Stripped Matrix					led Parent Material (TF2)
	listic (A3)	_	_ Loamy Mucky			MLRA 1)		ery Shallow Dark Surface (TF12)
	en Sulfide (A4)	(A44)	_ Loamy Gleyed		()		0	other (Explain in Remarks)
	ed Below Dark Surfa	ice (A11)	Depleted Matri				31malia.	atoro of hydrophytic vocatation and
)ark Surface (A12) Mucky Mineral (S1)		Redox Dark SuDepleted Dark					ators of hydrophytic vegetation and tland hydrology must be present,
	Gleyed Matrix (S4)		_ Depleted Dark _ Redox Depres		7)			less disturbed or problematic.
	Layer (if present):		_ Redox Depies	310113 (1 0)			1	less disturbed of problematic.
	Layer (ii present)							
			_				Libratui a C	oil Present? Yes X No
Depth (ir	iciles).		_				Hyuric 3	oil Present? Yes <u>^</u> No
Remarks:								
HYDROLO)GY							
	drology Indicator							
	icators (minimum o		مرمره فمطف المرياء مطم	L.A			Car	dladicatera (2 as massa resultad)
		one required; c		•	(50) (<u>Sec</u>	condary Indicators (2 or more required)
	Water (A1)			ained Leav		xcept	_	Water-Stained Leaves (B9) (MLRA 1, 2,
1 7 1	ater Table (A2)			1, 2, 4A, a	and 4B)			4A, and 4B)
· 	ion (A3)		Salt Crus	, ,			_	Drainage Patterns (B10)
	Marks (B1)			nvertebrate			_	Dry-Season Water Table (C2)
	ent Deposits (B2)			Sulfide O			_	Saturation Visible on Aerial Imagery (C9)
Drift De	eposits (B3)		Oxidized	Rhizosphe	res a l ong	Living Roo	ots (C3)	Geomorphic Position (D2)
Algal M	lat or Crust (B4)		Presence	of Reduce	ed Iron (C4	!)	_	Shallow Aquitard (D3)
Iron De	posits (B5)		Recent In	on Reducti	on in Tilled	d Soils (C6	j)	FAC-Neutral Test (D5)
Surface	e Soil Cracks (B6)		Stunted o	r Stressed	Plants (D	1) (LRR A))	Raised Ant Mounds (D6) (LRR A)
Inundat	tion Visib l e on Aeria	I Imagery (B7)	Other (Ex	plain in Re	marks)			Frost-Heave Hummocks (D7)
Sparse	ly Vegetated Conca	ve Surface (B8))					
Field Obse	rvations:							
Surface Wa	ter Present?	Yes X No	Depth (ir	nches): <u><1</u>		_		
Water Table	e Present?	Yes X No	Depth (ir	nches): 0				
Saturation F	Present?		Depth (ir			Wetla	and Hydrolo	ogy Present? Yes X No
	apillary fringe)					_		
Describe Re	ecorded Data (strea	m gauge, monit	oring well, aerial	photos, pr	evious ins	pections), i	if available:	
Remarks:								
May be	old road							

Project/Site: Nisqually State Park			City/Cou	inty: Pierce		_ Sampling Date: <u>12/11/2023</u>	
Applicant/Owner: WA State Parks						_ Sampling Point: W17-SP2	
Investigator(s): Dominguez x2			Section,	Township, Ra	_{nge:} None		
Landform (hillslope, terrace, etc.): hil	Islope		Local re	elief (concave,	convex, none): Convex	Slope (%): <u>10</u>	
Subregion (LRR):		Lat:			Long:	Datum:	
Soil Map Unit Name:							
Are climatic / hydrologic conditions or	n the site typical for th	nis time of ye	ar? Yes	<u>X</u> No _	(If no, explain in	Remarks.)	
Are Vegetation N Soil N,	or Hydrology N	significantly	disturbed	d? Are "	'Normal Circumstances"	present? Yes X No	
Are Vegetation N, Soil N,	or Hydrology N	naturally pro	blematic	? (If ne	eded, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS -	Attach site map	showing	sampl	ling point l	ocations, transect	s, important features, et	tc.
Hydrophytic Vegetation Present?	Yes						
Hydric Soil Present?	Yes	No X		s the Sampled vithin a Wetlar		No X	
Wetland Hydrology Present?	Yes	No <u>* </u>		vicinii a vveciai	10: 103		
Remarks:							
VEGETATION – Use scientif	fic names of pla	nte					
VEGETATION - Ose scientil	le names of pla	Absolute	Domine	ant Indicator	Dominance Test wor	·kshoot:	
Tree Stratum (Plot size: 30')			s? Status	Number of Dominant		
1	_				That Are OBL, FACW		
2					Total Number of Domi	inant	
3					Species Across All Str	4	
4					Percent of Dominant S	Species	
Sapling/Shrub Stratum (Plot size:	15'		_ = Total	Cover	That Are OBL, FACW	, or FAC: <u>.25</u> (A/E	3)
1. ACCI Vine Maple		20	Υ	FAC	Prevalence Index wo		
2. PSME Doug Fir		65	Υ	FACU		Multiply by:	
3.						x 1 =	
4						x 2 = x 3 =	
5						x 4 =	
Herb Stratum (Plot size: 5'	\	85	_ = Total	Cover		x 5 =	
1. POMU Sword Fern	/	30	Υ	FACU	Column Totals:		3)
2. GASH Salal		20	Υ	FACU	Prevalence Inde	x = B/A =	
3. RUUR Trailing BB		5	N	FACU	Hydrophytic Vegetat	· · · · · · · · · · · · · · · · · · ·	
4						Hydrophytic Vegetation	
5					2 - Dominance Te	est is >50%	
6					3 - Prevalence Inc	dex is ≤3.0 ¹	
7						Adaptations ¹ (Provide supportinks or on a separate sheet)	ng
8					5 - Wetland Non-\		
9						ophytic Vegetation ¹ (Explain)	
10 11.					l 	oil and wetland hydrology must	
· · ·			= Total (Cover	be present, unless dis		
Woody Vine Stratum (Plot size: -)		_ / / / / /	0010.			
1					Hydrophytic		
2					Vegetation Present? Y	es No X	
% Bare Ground in Herb Stratum 30)	0	_= Total (Cover			
Remarks:					<u> </u>		
Moss covering remainde	er of bare grou	ınd					
inious sovering remained	i or baro grou						

SOIL Sampling Point: W17-SP2

Profile Desc	ription: (Descri	be to the dep	th neede	ed to docum	ent the ir	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix	(Redox	C Features				
(inches)	Color (moist)	%	Color	(moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0 - 16	7.5 YR 4/2	60						Si/Lo	
	7.5 YR 4/4	40						Si/Lo	
	-								
									·
	-								·
-									·
1								. 2.	
	oncentration, D=D						d Sand Gra		ocation: PL=Pore Lining, M=Matrix.
	Indicators: (App	licable to all				ea.)			ors for Problematic Hydric Soils ³ :
Histosol	` '		_	dy Redox (S	•				m Muck (A10)
-	oipedon (A2)			oped Matrix		\	MI DA 4\		d Parent Material (TF2)
Black Hi	en Sulfide (A4)			my Mucky IV my Gleyed I			WILKA 1)		ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
	d Below Dark Sur	ace (A11)		leted Matrix		l		0	iei (Explain in Nemarks)
	ark Surface (A12)	400 (7111)		lox Dark Sur				3Indicat	ors of hydrophytic vegetation and
	lucky Mineral (S1)		leted Dark S	. ,	7)			and hydrology must be present,
	Gleyed Matrix (S4)	,		lox Depressi	•	,			ss disturbed or problematic.
Restrictive	Layer (if present):							
Type:									
Depth (in	ches):							Hydric So	il Present? Yes No X
Remarks:									
HYDROLO	GV								
1	drology Indicato								
	cators (minimum d	of one require	d; check a		•				ondary Indicators (2 or more required)
	Water (A1)			Water-Stair			xcept		Water-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (A2)				l, 2, 4A, a	nd 4B)			4A, and 4B)
Saturation				Salt Crust (· · · · · · · · · · · · · · · · · · ·	Drainage Patterns (B10)
Water M			_	Aquatic Inv					Dry-Season Water Table (C2)
·	nt Deposits (B2)			Hydrogen S					Saturation Visible on Aerial Imagery (C9)
	posits (B3)		Ш	Oxidized R		_	_		Geomorphic Position (D2)
	at or Crust (B4)		_	Presence of		•	•		Shallow Aquitard (D3)
	posits (B5)		_	Recent Iron					FAC-Neutral Test (D5)
	Soil Cracks (B6)	(5		Stunted or			1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
	on Visible on Aeri			Other (Exp	laın ın Rei	marks)			Frost-Heave Hummocks (D7)
	/ Vegetated Conc	ave Surface (B8)						
Field Obser			Y						
Surface Wat				_ Depth (inc					
Water Table	Present?			_ Depth (inc			I		V
Saturation P (includes car	oillary fringe)			_ Depth (inc					gy Present? Yes No X
Describe Re	corded Data (stre	am gauge, m	onitoring	well, aerial p	hotos, pre	evious ins	pections), i	if available:	
Remarks:									

Project/Site: Nisqually State Park		City/County	Pierce		Sampling Date: 12/11/2023
Applicant/Owner: WA State Parks				Sampling Point: W18-SP1	
Investigator(s): Dominguez x2		Section, To	wnship, Ra	_{nge:} None	
					Slope (%): <1
Subregion (LRR):	_ Lat:			_ Long:	Datum:
Soil Map Unit Name:				NWI classifica	ation:
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation N , Soil N , or Hydrology N si	gnificantly	disturbed?	Are '	'Normal Circumstances" p	resent? Yes X No
Are Vegetation N , Soil N , or Hydrology N na	aturally pro	blematic?	(If ne	eeded, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	samnlin	a point I	ocations transects	important features, etc.
Hydrophytic Vegetation Present? Yes X No			9 Po	Tourions, manocons,	
Hydric Soil Present? Yes X No		Is th	e Sampled		
Wetland Hydrology Present? Yes X No		with	in a Wetlaı	nd? Yes X	No
Remarks:		•			
VEGETATION – Use scientific names of plant					
Tree Stratum (Plot size: 30'	Absolute % Cover	Dominant Species?		Dominance Test works Number of Dominant Sp	
1. POBA2 Cottonwood	60	Υ	FAC	That Are OBL, FACW, o	0
2		-		Total Number of Domina	ant
3				Species Across All Strat	
4				Percent of Dominant Sp	pecies
Sapling/Shrub Stratum (Plot size: 15'		= Total Co	ver	That Are OBL, FACW, o	
1. POBA2 Cottonwood	30	Υ	FAC	Prevalence Index work	
2.				Total % Cover of:	
3.					x 1 = <u>85</u>
4		-		FAC species 90	x 2 = x 3 = 270
5				FACU species 15	x = 4 = 60
Herb Stratum (Plot size: 5'	30	= Total Co	ver		x 5 =
1. CAOB3 Slough Sedge	85	Υ	OBL	Column Totals: 145	
2. RUUR Trailing BB	5	N	FACU	Prevalence Index	$= R/\Delta = 2.86$
3. POMU	10	Υ	FACU	Hydrophytic Vegetatio	
4					lydrophytic Vegetation
5				2 - Dominance Test	t is >50%
6				√ 3 - Prevalence Inde	$x \text{ is } \le 3.0^{1}$
7					daptations ¹ (Provide supporting
8				5 - Wetland Non-Va	s or on a separate sheet)
9					phytic Vegetation ¹ (Explain)
10 11					and wetland hydrology must
···	100	= Total Cov		be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)			- -		
1				Hydrophytic	
2				Vegetation Present? Yes	s ^X No
% Bare Ground in Herb Stratum	0	= Total Cov	/er		
Remarks:				1	

SOIL Sampling Point: W18-SP1

Depth (inches)	Matrix Color (moist)	%	Rec Color (moist)	dox Features % T	ype ¹ Loc ²	_ Texture	Remarks
0 - 16	GLEY1 5/10y	100	Color (moist)		ype Loc	Sand/Gravel	
	<u>OLL 11 0/10 y</u>		_				<u>Craver component</u>
			_				
			_				
		_					
			_				
	-						
			_				
¹ Type: C=C	oncentration, D=De	pletion, R	— M=Reduced Matrix, 0	CS=Covered or	Coated Sand	Grains. ² Lo	cation: PL=Pore Lining, M=Matrix.
			all LRRs, unless oth				ors for Problematic Hydric Soils³:
Histosol	I (A1)		Sandy Redox	(S5)		2 cr	n Muck (A10)
	pipedon (A2)		Stripped Matri			Red	Parent Material (TF2)
Black H	istic (A3)		Loamy Mucky	Mineral (F1) (e	except MLRA	1) Ver	y Shallow Dark Surface (TF12)
	en Su l fide (A4)		Loamy Gleyed			Oth	er (Exp l ain in Remarks)
	d Below Dark Surfa	ice (A11)	Depleted Mati			3	
	ark Surface (A12)		Redox Dark S	. ,			ors of hydrophytic vegetation and
_	Mucky Mineral (S1) Gleyed Matrix (S4)		Depleted Dark	k Surface (F7)			nd hydrology must be present, s disturbed or problematic.
	Layer (if present):		Nedox Deple	5510115 (1-0)		unies	s disturbed of problematic.
Type:	Layer (ii present).						
Depth (in	ohoo):					Hydric Soil	Present? Yes X No
	Ciles).					Hydric 30ii	Fresentr res No
Remarks:							
HYDROLO	igy						
Wetland Hy	drology Indicators		rad, about all that an	nh à		Saas	ndoru Indicatoro (2 or more required)
Wetland Hy	drology Indicators		red; check all that ap	-	PD0) (ndary Indicators (2 or more required)
Wetland Hy Primary India Surface	drology Indicators cators (minimum of Water (A1)		Water-St	tained Leaves (Vater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary India Surface High Wa	drology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-St	tained Leaves (v	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hy Primary India Surface High Wa Saturation	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)		Water-St MLRA Salt Crus	tained Leaves (A 1, 2, 4A, and st (B11)	4B)	v	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) orainage Patterns (B10)
Wetland Hy Primary India Surface High Wa Saturati Water M	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1)		Water-St MLRA Salt Crus Aquatic I	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (E	4B) 313)	v	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Prainage Patterns (B10) Pry-Season Water Table (C2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		Water-St MLRA Salt Crus Aquatic I ☐ Hydroge	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor	4B) 313) (C1)	V C S	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Prainage Patterns (B10) Pry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift De	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (E n Sulfide Odor I Rhizospheres	4B) 313) (C1) along Living F	V E S toots (C3) G	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Prainage Patterns (B10) Pry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimei Drift Dej Algal Ma	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (B 1) In Sulfide Odor I Rhizospheres e of Reduced Ir	4B) 313) (C1) along Living Fron (C4)	V C C S coots (C3) S	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) challow Aquitard (D3)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (E n Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i	4B) B13) (C1) along Living F on (C4) n Tilled Soils (V E E S S S S S S S	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Beomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	one requi	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (E on Sulfide Odor of the E of Reduced Ir on Reduction ior Stressed Pla	4B) 313) (C1) along Living Fron (C4) in Tilled Soils (ants (D1) (LRR	- V - Coots (C3) - C - C - C - C - C - C - C - C - C - C	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) Inaturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) Ideomorphic Position (D3) AC-Neutral Test (D5) Italised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria	one requi	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) OMERA	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (E n Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i	4B) 313) (C1) along Living Fron (C4) in Tilled Soils (ants (D1) (LRR	- V - Coots (C3) - C - C - C - C - C - C - C - C - C - C	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Beomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Surface Inundati Sparsel	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca	one requi	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) OMERA	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (E on Sulfide Odor of the E of Reduced Ir on Reduction ior Stressed Pla	4B) 313) (C1) along Living Fron (C4) in Tilled Soils (ants (D1) (LRR	- V - Coots (C3) - C - C - C - C - C - C - C - C - C - C	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) Inaturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) Ideomorphic Position (D3) AC-Neutral Test (D5) Italised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca	I Imagery ove Surface	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (B7) Other (E.	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (B 1) In Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remains.	4B) 313) (C1) along Living Fron (C4) in Tilled Soils (ants (D1) (LRR	- V - Coots (C3) - C - C - C - C - C - C - C - C - C - C	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) Inaturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) Ideomorphic Position (D3) AC-Neutral Test (D5) Italised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift De Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca vations: ter Present?	I Imagery (ve Surface	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) (B8) No Depth (i	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): <1	4B) 313) (C1) along Living Fron (C4) in Tilled Soils (ants (D1) (LRR	- V - Coots (C3) - C - C - C - C - C - C - C - C - C - C	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) Inaturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) Ideomorphic Position (D3) AC-Neutral Test (D5) Italised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca cyations: arer Present? Present?	I Imagery ove Surface Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) Other (E) (B8)	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): 41	4B) 313) (C1) along Living Fron (C4) in Tilled Soils (ants (D1) (LRR	C6) F	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Paturation Position (D2) Paturation Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca vations: ter Present? Present?	I Imagery ove Surface Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) (B8) No Depth (i	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): 41	4B) 313) (C1) along Living Fron (C4) in Tilled Soils (ants (D1) (LRR	C6) F	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) Inaturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) Ideomorphic Position (D3) AC-Neutral Test (D5) Italised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes ca	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca contractions: arer Present? Present? Present? pillary fringe)	I Imagery ove Surface Yes X Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) Other (E) (B8)	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): Comparison	4B) 313) (C1) along Living Fron (C4) nn Tilled Soils (ants (D1) (LRR rks)	Coots (C3)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Paturation Position (D2) Paturation Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes ca	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca contractions: arer Present? Present? Present? pillary fringe)	I Imagery ove Surface Yes X Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) Other (E) (B8) No Depth (i No Depth (i	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): Comparison	4B) 313) (C1) along Living Fron (C4) nn Tilled Soils (ants (D1) (LRR rks)	Coots (C3)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Paturation Position (D2) Paturation Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes ca	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca contractions: arer Present? Present? Present? pillary fringe)	I Imagery ove Surface Yes X Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) Other (E) (B8) No Depth (i No Depth (i	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): Comparison	4B) 313) (C1) along Living Fron (C4) nn Tilled Soils (ants (D1) (LRR rks)		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Paturation Position (D2) Paturation Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes cal	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca contractions: arer Present? Present? Present? pillary fringe)	I Imagery ove Surface Yes X Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) Other (E) (B8) No Depth (i No Depth (i	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): Comparison	4B) 313) (C1) along Living Fron (C4) nn Tilled Soils (ants (D1) (LRR rks)		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Paturation Position (D2) Paturation Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes cal	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca contractions: arer Present? Present? Present? pillary fringe)	I Imagery ove Surface Yes X Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) Other (E) (B8) No Depth (i No Depth (i	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): Comparison	4B) 313) (C1) along Living Fron (C4) nn Tilled Soils (ants (D1) (LRR rks)		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Paturation Position (D2) Paturation Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes cal	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Conca contractions: arer Present? Present? Present? pillary fringe)	I Imagery ove Surface Yes X Yes X Yes X	Water-St MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted ((B7) Other (E) (B8) No Depth (i No Depth (i	tained Leaves (A 1, 2, 4A, and st (B11) Invertebrates (En Sulfide Odor I Rhizospheres e of Reduced Ir ron Reduction i or Stressed Pla xplain in Remaininches): Comparison	4B) 313) (C1) along Living Fron (C4) nn Tilled Soils (ants (D1) (LRR rks)		Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Paturation Position (D2) Paturation Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)

Project/Site: Nisqually State Park		City/County	Pierce		Sampling Date: 12/	/11/2023
Applicant/Owner: WA State Parks				State: WA	Sampling Point: W	18-SP2
Investigator(s): Dominguez x2		Section, To	wnship, Ra	_{ange:} None		
Landform (hillslope, terrace, etc.): hillslope		Local relief	(concave,	convex, none): Convex	Slope	(%): <u>5</u>
Subregion (LRR):	Lat:			_ Long:	Datum:	
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical						
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$, or Hydrology $\frac{N}{N}$	•	·		"Normal Circumstances" p		No
Are Vegetation N, Soil N, or Hydrology N	-			eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site i			,		,	ures, etc.
Hydrophytic Vegetation Present? Yes	No <u>X</u>					
Hydric Soil Present? Yes	No X		e Sampled in a Wetla		No X	
Wetland Hydrology Present? Yes	No X	With	iii a vvetia	iiu: 165		
VEGETATION – Use scientific names of	plants. Absolute	Dominant	Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30' 1. PSME Doug Fir	25	Species?	Status FACU	Number of Dominant S		
				That Are OBL, FACW,	or FAC: 1	(A)
2.				Total Number of Domin		(D)
3 4.				Species Across All Stra	ita: <u>-</u>	(B)
	25	 _ = Total Co	ver	Percent of Dominant S That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum (Plot size: 15'		- 	E40	Prevalence Index wor	<u> </u>	(/ 0.5/
1. ACCI Vine Maple		<u>Y</u>	FAC		Multiply b	y:
2				OBL species		
3				FACW species	x 2 =	
4				FAC species	x 3 =	
5	20	= Total Co		FACU species	x 4 =	
Herb Stratum (Plot size: 5')		10tal 00	VOI	UPL species		
1. POMU Sword Fern	15	<u>N</u>	FACU	Column Totals:	(A)	(B)
2. GASH Salal	40	<u>Y</u>	FACU	Prevalence Index	= B/A =	
3. MAAQ Oregon Grape	35	<u>Y</u>	UPL	Hydrophytic Vegetation		
4				1 - Rapid Test for I	Hydrophytic Vegetation	on
5				2 - Dominance Tes	st is >50%	
6				3 - Prevalence Inde	ex is ≤3.0 ¹	
7				4 - Morphological A	Adaptations ¹ (Provide s or on a separate sh	
8				5 - Wetland Non-V	•	icci)
9 10				Problematic Hydro		xplain)
11.				¹Indicators of hydric so		
	90	= Total Cov	 /er	be present, unless dist	urbed or prob l ematic.	
Woody Vine Stratum (Plot size:)			· - •			
1				Hydrophytic		
2	^			Vegetation Present? Ye	es No X	
% Bare Ground in Herb Stratum 15	0	_= Total Cov	/er	. rosciit: Te	· 140	_
Remarks:						

SOIL Sampling Point: W18-SP2

	ription: (Descril	-				or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	edox Feature: %	<u>S</u> _Type ¹	Loc ²	Texture	Remarks
0 - 16	7.5 YR 4/3	60	Color (moist)		Туре		Si/Lo	Remarks
0 - 10	7.5 11(4/5						<u> </u>	
¹ Type: C=C	oncentration, D=D	enletion RM	=Reduced Matrix	CS=Covered	d or Coate	d Sand Gr	ains ² l oc	eation: PL=Pore Lining, M=Matrix.
	Indicators: (App					u oanu on		rs for Problematic Hydric Soils ³ :
Histosol			Sandy Redo		,			n Muck (A10)
	oipedon (A2)		Stripped Ma					Parent Material (TF2)
Black H				ky Mineral (F	1) (except	: MLRA 1)		Shallow Dark Surface (TF12)
	en Sulfide (A4)			ed Matrix (F2		,		er (Explain in Remarks)
Deplete	d Below Dark Surf	ace (A11)	Depleted Ma	atrix (F3)				
Thick Da	ark Surface (A12)			Surface (F6)			³ Indicato	rs of hydrophytic vegetation and
	lucky Mineral (S1			ırk Surface (F	7)			nd hydrology must be present,
	Bleyed Matrix (S4)		Redox Depr	essions (F8)			unles	s disturbed or problematic.
Restrictive	Layer (if present)	:						
Туре:								V
Depth (in	ches):						Hydric Soil	Present? Yes No X
HYDROLO	GY							
Wetland Hy	drology Indicator	rs:						
Primary Indi	cators (minimum c	of one require	d; check all that a	(ylqq			<u>Secon</u>	dary Indicators (2 or more required)
Surface	Water (A1)		Water-	Stained Leav	es (B9) (e	xcept	w	/ater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	iter Tab l e (A2)		MLF	RA 1, 2, 4A, a	and 4B)			4A, and 4B)
Saturati	on (A3)		Salt Cr	ust (B11)			Di	rainage Patterns (B10)
Water M	larks (B1)		Aquatio	Invertebrate	es (B13)		Di	ry-Season Water Table (C2)
Sedime	nt Deposits (B2)		Hydrog	en Su l fide O	dor (C1)		Sa	aturation Visible on Aerial Imagery (C9)
Drift De	oosits (B3)		Oxidize	ed Rhizosphe	res along	Living Roo	ts (C3) G	eomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presen	ce of Reduce	ed Iron (C4	1)	SI	hallow Aquitard (D3)
Iron Dep	oosits (B5)		Recent	Iron Reducti	on in Tille	d Soils (C6) <u> </u>	AC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted	d or Stressed	Plants (D	1) (LRR A)	R	aised Ant Mounds (D6) (LRR A)
Inundati	on Visib l e on Aeria	al Imagery (B	7) Other (Explain in Re	emarks)		☐ Fr	rost-Heave Hummocks (D7)
Sparsely	/ Vegetated Conc	ave Surface (B8)					
Field Obser	vations:							
Surface Wat	er Present?	Yes	No X Depth	(inches):		_		
Water Table	Present?	Yes	No X Depth	(inches):		_		
Saturation P	resent?	Yes	No X Depth	(inches):		Wetla	and Hydrology	/ Present? Yes No X
(includes ca							·	
Describe Re	corded Data (strea	am gauge, m	onitoring well, aer	ıa ı pnotos, pr	evious ins	pections), i	ır avaılable:	
Remarks:								

Project/Site: Nisqually State Park		City/County	Pierce		Sampling Date: <u>12/11/2023</u>
Applicant/Owner: WA State Parks				State: WA	Sampling Point: W19-SP1
Investigator(s): Dominguez x2		Section, To	wnship, Ra	_{inge:} None	
					Slope (%): <u><1</u>
Subregion (LRR):	Lat:			Long:	Datum:
Soil Map Unit Name:				NWI classific	ation:
Are climatic / hydrologic conditions on the site typical for the	nis time of ye	ar? Yes X	No _	(If no, explain in R	emarks.)
Are Vegetation N , Soil N , or Hydrology N	significantly	disturbed?	Are '	"Normal Circumstances" p	resent? Yes X No
Are Vegetation N , Soil N , or Hydrology N	naturally pro	blematic?	(If ne	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point I	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X		<u> </u>	 	•	, ,
Hydric Soil Present? Yes X		l l	e Sampled		
Wetland Hydrology Present? Yes X		with	in a Wetlai	nd? Yes <u>^</u>	No
Remarks:					
VECETATION Line exicutific names of plan	nto				
VEGETATION – Use scientific names of pla	Absolute	Dominant	Indicator	Dominance Test work	shoot:
Tree Stratum (Plot size: 30'		Species?		Number of Dominant Si	
1				That Are OBL, FACW,	
2				Total Number of Domin	ant _
3				Species Across All Stra	ta: <u>1</u> (B)
4		 _ = Total Co		Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15'		_ = 10tal C0	vei	That Are OBL, FACW, o	
1				Prevalence Index work Total % Cover of:	
2					$x 1 = \frac{70}{}$
3					x 2 =
4				· · · · · · · · · · · · · · · · · · ·	x 3 =
5	50	= Total Co		FACU species 10	x 4 = 40
Herb Stratum (Plot size: 5')		Total Co	vei		x 5 =
1. CAOB3 Slough Sedge	70	Y	OBL	Column Totals: 80	(A) <u>110</u> (B)
2. GASH Salal	_ 5	<u>N</u>	FACU	Prevalence Index	= B/A = 1.37
3. POMU Sword Fern	_ 5	<u>N</u>	FACU	Hydrophytic Vegetation	n Indicators:
4				1 - Rapid Test for H	lydrophytic Vegetation
5				2 - Dominance Tes	
6				3 - Prevalence Inde	
7				4 - Morphological A	daptations ¹ (Provide supporting s or on a separate sheet)
8 9				5 - Wetland Non-Va	
10.					ohytic Vegetation ¹ (Exp l ain)
11.				¹ Indicators of hydric soi	and wetland hydrology must
	80	_= Total Cov	ver	be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2	_ 			Vegetation Present? Yes	s <u>X</u> No
% Bare Ground in Herb Stratum 20	-	_= Total Cov	/ei		
Remarks:					

SOIL Sampling Point: W19-SP1

Profile Desc	ription: (Describ	e to the depth	n needed to document the indicator or c	onfirm the absen	ce of indicators.)
Depth	Matrix Color (moist)	<u></u> %	Redox Features	oc² Texture	Remarks
(inches) 0 - 16	10 YR 4/2	 %	Color (moist) % Type ¹ L	oc² <u>Texture</u> Si/Lo	Remarks
0-10	10 11(4/2				
					-
¹ Type: C=Cd	oncentration, D=De	epletion, RM=F	Reduced Matrix, CS=Covered or Coated Sa		Location: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Appl	icab l e to all L	RRs, unless otherwise noted.)	Indic	ators for Problematic Hydric Soils ³ :
Histosol	` '	_	Sandy Redox (S5)		cm Muck (A10)
	pipedon (A2)	_	Stripped Matrix (S6)		led Parent Material (TF2)
Black Hi		-	Loamy Mucky Mineral (F1) (except ML		Yery Shallow Dark Surface (TF12)
	n Sulfide (A4)	- (0.11)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	d Below Dark Surfa ark Surface (A12)	ice (ATT)	X Depleted Matrix (F3) Redox Dark Surface (F6)	³ Indic	ators of hydrophytic vegetation and
	lucky Mineral (S1)	_	Depleted Dark Surface (F7)		etland hydrology must be present,
	leyed Matrix (S4)	_	Redox Depressions (F8)		less disturbed or problematic.
	_ayer (if present):	_			· · · · · · · · · · · · · · · · · · ·
Type:					
Depth (inc	ches):			Hvdric S	oil Present? Yes X No
Remarks:	,				
Gravel P	rocont				
Glaveir	i eserit				
HYDROLO	GY				
Wetland Hyd	drology Indicators	s:			
Primary Indic	cators (minimum of	one required;	check all that apply)	<u>Se</u>	condary Indicators (2 or more required)
Surface	Water (A1)		Water-Stained Leaves (B9) (exception)	pt	Water-Stained Leaves (B9) (MLRA 1, 2,
✓ High Wa	ter Tab l e (A2)		MLRA 1, 2, 4A, and 4B)		4A, and 4B)
✓ Saturatio	on (A3)		Salt Crust (B11)		Drainage Patterns (B10)
Water M	arks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)				Saturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Oxidized Rhizospheres along Livir	ng Roots (C3)	Geomorphic Position (D2)
Algal Ma	it or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
Iron Dep	osits (B5)		Recent Iron Reduction in Tilled So	oils (C6)	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (L	_RR A)	Raised Ant Mounds (D6) (LRR A)
	on Visib l e on Aeria				Frost-Heave Hummocks (D7)
Sparsely	Vegetated Conca	ve Surface (B	3)		
Field Observ			V		
Surface Wate	er Present?	Yes N	o X Depth (inches):		
Water Table	Present?	Yes X N	o Depth (inches): 3"		
Saturation Pr	resent?	Yes X N	o Depth (inches): 0	Wetland Hydrol	ogy Present? Yes X No
(includes cap			itaring well agric heaten province increase	tions) if sucilable.	
Describe Red	Jorded Data (Strea	ııı gauge, mon	itoring well, aerial photos, previous inspect	uons), ii avallable:	
Remarks:					

Project/Site: Nisqually State Park			City/County	Pierce	Sampling Date: <u>12/11/2023</u>		
Applicant/Owner: WA State Parks					State: WA	Sampling Point: W	/19-SP2
Investigator(s): Dominguez x2		;	Section, To	wnship, Ra	_{inge:} None		
Landform (hillslope, terrace, etc.): sl					convex, none): Convex	Slope	∍ (%): <u>5</u>
Subregion (LRR):		Lat:			Long:	Datum	: <u></u>
Soil Map Unit Name:					NWI classific	ation:	
Are climatic / hydrologic conditions o	n the site typical for	this time of yea	ar? Yes X	No _	(If no, explain in R	emarks.)	
Are Vegetation N, Soil N,	or Hydrology N	_ significantly	disturbed?	Are '	"Normal Circumstances" p	oresent? Yes X	No
Are Vegetation N, Soil N,	or Hydrology N	_ naturally pro	blematic?	(If ne	eeded, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS –		_		•	•	•	tures, etc.
Hydrophytic Vegetation Present?	Yes	No X					
Hydric Soil Present?	Yes	No <u>X</u>		e Sampled		No X	
Wetland Hydrology Present?	Yes	No <u>X</u>	With	in a Wetla	na? Yes	No <u>^</u>	
Remarks: VEGETATION – Use scienti	fic names of pla	ants.					
Tree Stratum (Plot size: 30'	`	Absolute	Dominant		Dominance Test work	sheet:	
1. POBA2 Cottonwood)	30	Species? Y	FAC	Number of Dominant S That Are OBL, FACW,	· ^	(A)
2. ALRU Red Alder		10	Y	FAC			(^)
3.					Total Number of Domin Species Across All Stra	_	(B)
4							(=)
	15'	40	= Total Co	ver	Percent of Dominant Sport That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum (Plot size: 1. PSME Doug Fir	15)	25	Υ	FACU	Prevalence Index wor	<u> </u>	
					Total % Cover of:	Multiply I	by:
2					OBL species	x 1 =	
4.					FACW species		
5					FAC species		
		25	= Total Co	ver	FACU species		
)	20	Υ	FACU	UPL species		
1. POMU Sword Fern 2. GASH Salal		— 20	<u>Y</u> Y	FACU	Column Totals:	(A)	(B)
						= B/A =	
3					Hydrophytic Vegetation		
4					1 - Rapid Test for F	Hydrophytic Vegetati	ion
5 6					3 - Prevalence Inde		
7.					4 - Morphological A		e supporting
8.					data in Remarks	s or on a separate s	heet)
9.					5 - Wetland Non-V	ascular Plants ¹	
10					Problematic Hydro		
11					¹ Indicators of hydric soil be present, unless distri		
Woody Vine Stratum (Plot size: -	,	100	= Total Co	ver	be present, unless dist	Troca or problematic	,.
					Under the dis		
1 2					Hydrophytic Vegetation	_	
·		^	= Total Co	ver	Present? Ye	s No_X	
% Bare Ground in Herb Stratum		_					
Remarks:							

SOIL Sampling Point: W19-SP2

Profile Desc	ription: (Describ	e to the de	pth needed to	o docun	nent the i	ndicator	or confirm	the absence	e of indicators.)	
Depth	<u>Matrix</u>	0.4	- 		x Features		. 2	- .	5	
(inches)	Color (moist)		Color (m	oist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0 - 16	7.5 YR 3/2	_ 100						Si/Lo		
			_						<u></u>	
		_								
			-						-	
1Tuno: C=C	neentration D=De	nlotion DN	- ————————————————————————————————————	atriv CC			d Cand Cr		cation: PL=Pore Lining,	M-Matrix
	ncentration, D=Dendicators: (Appli						a Sand Gr		ors for Problematic Hyd	
Histosol		cabic to a				ou.,			m Muck (A10)	inc cons .
	oipedon (A2)		Sandy F Stripped						d Parent Material (TF2)	
Black Hi						1) (except	MLRA 1)		ry Shallow Dark Surface (TF12)
	n Sulfide (A4)				Matrix (F2		,		ner (Explain in Remarks)	,
	l Below Dark Surfa	ce (A11)	Deplete			,			,	
Thick Da	ırk Surface (A12)		Redox I	Dark Su	rface (F6)			³ Indicat	ors of hydrophytic vegeta	tion and
Sandy M	lucky Mineral (S1)		Deplete	d Dark \$	Surface (F	7)		wetla	and hydrology must be pr	esent,
	leyed Matrix (S4)		Redox I	Depress	ions (F8)			unle	ss disturbed or prob l emat	tic.
Restrictive I	_ayer (if present):									
Type:										V
Depth (inc	ches):							Hydric Soi	I Present? Yes	_ No X
Remarks:								•		
UVDDOL O	CV									
HYDROLO										
Wetland Hyd	drology Indicators	s:								
Primary Indic	ators (minimum of	one requir	<u>ed; check all tl</u>	nat appl	y)			<u>Seco</u>	ondary Indicators (2 or mo	re required)
	Water (A1)		Wa		ined Leave		xcept	\	Nater-Stained Leaves (B	9) (MLRA 1, 2,
	ter Tab l e (A2)				1, 2, 4A, a	ınd 4B)			4A, and 4B)	
Saturation	` '			It Crust	. ,				Orainage Patterns (B10)	
Water M	arks (B1)				vertebrate			[Ory-Season Water Table	(C2)
' 	it Deposits (B2)			-	Sulfide Od				Saturation Visib l e on Aeria	, ,
	oosits (B3)				•	•	Living Roo	—	Geomorphic Position (D2)	1
	t or Crust (B4)		Pre	esence	of Reduce	d Iron (C	4)	<u> </u>	Shallow Aquitard (D3)	
	osits (B5)						d Soi l s (C6		FAC-Neutral Test (D5)	
	Soil Cracks (B6)						1) (LRR A)	_	Raised Ant Mounds (D6)	,
	on Visib l e on Aeria			her (Exp	lain in Re	marks)		F	Frost-Heave Hummocks (D7)
	Vegetated Conca	ve Surface	(B8)							
Field Obser			V							
Surface Water			No X D				_			
Water Table	Present?	Yes	. No <u>X</u> D	epth (in	ches):		_			
Saturation Pr		Yes X	No D	epth (in	ches): <u>14</u>		Wetla	and Hydrolog	gy Present? Yes	No X
(includes cap	oillary fringe) corded Data (strea	m gaugo n	nonitorina wall	agrial :	ahotos er	evious iss	nections)	if available:		
Describe Ke	Joined Data (Sifea	ıı yauye, r	nonitoring well	, a c na i [onotos, pre	evious iils	pecii0115),	ıı avallabl e .		
D										
Remarks:										

Project/Site: Nisqually State Park	c	City/County:	Pierce		Sampling Date: 12/11/2023
Applicant/Owner: WA State Parks				State: WA	Sampling Point: W20-SP1
Investigator(s): Dominguez x2		Section, To	wnship, Rar	_{nge:} None	
					Slope (%): <u><1</u>
Subregion (LRR):	Lat:			Long:	Datum:
Soil Map Unit Name:				NWI classifica	ation:
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes X	No	(I f no, exp l ain in Re	emarks.)
Are Vegetation N , Soil N , or Hydrology N signals	nificant l y c	disturbed?	Are "	Normal Circumstances" pı	resent? Yes X No
Are Vegetation N , Soil N , or Hydrology N na	turally prob	olematic?	(If ne	eded, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	a point la	ocations, transects.	important features, etc.
Hydrophytic Vegetation Present? Yes X No			3		
Hydric Soil Present? Yes X No			e Sampled		
Wetland Hydrology Present? Yes X No		with	in a Wetlan	id? Yes 🔨	No
Remarks:					
VECETATION III a a significa manga of plants					
VEGETATION – Use scientific names of plants	S. Absolute	Dominant	Indicator	Dominance Test works	phoeti
Tree Stratum (Plot size: 30'		Species?		Number of Dominant Sp	
1. POBA2 Cottonwood	20	<u>Y</u>	FAC	That Are OBL, FACW, o	^
2				Total Number of Domina	ant
3				Species Across All Strat	a: <u>3</u> (B)
4	20			Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15'		= Total Co	ver	That Are OBL, FACW, o	
1. ACCI Vine Maple	30	<u>Y</u>	FACU	Prevalence Index work	
2				Total % Cover of: OBL species 60	<u>Multiply by:</u> x 1 = _ ⁶⁰
3					x 2 =
4				FAC species 20	x 3 = 60
5	50			FACU species 30	x 4 = 120
Herb Stratum (Plot size: 5'		= Total Co	ver		x 5 =
1. CAOB3 Slough Sedge	60	Υ	OBL	Column Totals: 110	(A) <u>240</u> (B)
2.				Prevalence Index	= B/A = 2.18
3				Hydrophytic Vegetatio	
4				1 - Rapid Test for H	ydrophytic Vegetation
5				2 - Dominance Test	
6				✓ 3 - Prevalence Inde.	
7				4 - Morphological A	daptations ¹ (Provide supporting or on a separate sheet)
8				5 - Wetland Non-Va	
9					hytic Vegetation ¹ (Explain)
10. 11.				¹ Indicators of hydric soil	and wetland hydrology must
···	60 :	 = Total Cov	er	be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2				Vegetation Present? Yes	s X No
% Bare Ground in Herb Stratum 40	0 :	= Total Cov	er	, , ,	
Remarks:				L	

SOIL Sampling Point: W20-SP1

Profile Desc Depth	ription: (Describ: Matrix	e to the depti	h needed to document the indicator or confi Redox Features	irm the absence of indicators.)
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc ²	
0 - 1	7.5 YR 4/2	100		Lo
1 - 16	7.5 YR 4/1	100		Sa/Si
	=			
¹ Type: C=Co	oncentration, D=De	epletion.RM=l	Reduced Matrix, CS=Covered or Coated Sand	Grains. ² Location: PL=Pore Lining, M=Matrix.
			.RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)	_	Sandy Redox (S5)	2 cm Muck (A10)
Histic Ep	pipedon (A2)	<u>-</u>	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Hi		=	Loamy Mucky Mineral (F1) (except MLRA	· · · · · · · · · · · · · · · · · · ·
	n Sulfide (A4)	- (0.4.4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
l ——	d Below Dark Surfa ark Surface (A12)	ice (ATT)	X Depleted Matrix (F3) Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
l ——	lucky Mineral (S1)	-	Nedox Bark Surface (F5)	wetland hydrology must be present,
	Bleyed Matrix (S4)	<u>-</u>	Redox Depressions (F8)	unless disturbed or problematic.
	_ayer (if present):			
Туре:				
Depth (inc	ches):			Hydric Soil Present? Yes X No
Remarks:				
HYDROLO	GY			
	drology Indicators	••		
I -			check all that apply)	Secondary Indicators (2 or more required)
	Water (A1)	one required.	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
=	iter Table (A2)		MLRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation	, ,		Salt Crust (B11)	Drainage Patterns (B10)
l —	arks (B1)		Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9
Drift Dep	oosits (B3)		Oxidized Rhizospheres along Living R	Roots (C3) Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Dep			Recent Iron Reduction in Tilled Soils (· · · · · · · · · · · · · · · · · · ·
	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (LRR	
	on Visib l e on Aeria			Frost-Heave Hummocks (D7)
	Vegetated Conca	ve Surface (B	8)	
Field Obser		Vaa N	Is X Doubt (inches): 0	
Surface Water			lo X Depth (inches): 0	
Water Table			lo X Depth (inches): 0 Depth (inches): 12" Wo	etland Hydrology Present? Yes X No
Saturation Pi (includes cap		res <u>^</u> N	Depth (inches): 12 We	etland Hydrology Present? Yes <u>^</u> No
		m gauge, mor	nitoring well, aerial photos, previous inspections	s), if available:
Remarks:				

Project/Site: Nisqually State Park		City/County: Pierce				Sampling Date: <u>12/11/2023</u>		
Applicant/Owner: WA State Parks						State: WA	Sampling Point: V	W20-SP2
Investigator(s): Dominguez x2								
Landform (hillslope, terrace, etc.): sl							Slop	e (%): 4
Subregion (LRR):								
Soil Map Unit Name:								
Are climatic / hydrologic conditions o								
Are Vegetation N , Soil N ,		-				Normal Circumstances" p		No
Are Vegetation N, Soil N,		-				eded, explain any answer		
SUMMARY OF FINDINGS –								aturae atc
			Janip	, iiiig k	your i		- Important rea	110103, 0101
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No		ls	s the S	Sampled	Area		
Wetland Hydrology Present?		<u>x</u>	v	within a	a Wetlar	nd? Yes	No X	
Remarks:								
VEGETATION – Use scienti	fic names of plant	s.						
- 30'		Absolute		nant Ind		Dominance Test works	sheet:	
Tree Stratum (Plot size: 30')	% Cover 45	Specie Y		<u>Status</u> AC	Number of Dominant Sp		(4)
2. ALRU Red Alder		10	- '		AC	That Are OBL, FACW, o	rfac: <u>'</u>	(A)
3.						Total Number of Domina	^	(B)
4.						Species Across All Strat		(b)
		55	_ = Total	— — I Cover		Percent of Dominant Sp That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size:		40	_			Prevalence Index work		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
						Total % Cover of:		by:
2						OBL species		
3						FACW species		
4 5.						FAC species	x 3 =	
3. <u> </u>		40	= Total	— — I Cover		FACU species		
)		_			UPL species		
1. POMU Sword Fern		40	- <u>Y</u>		ACU	Column Totals:	(A)	(B)
2						Prevalence Index	= B/A =	
3						Hydrophytic Vegetatio		
4						1 - Rapid Test for H		tion
5 6						2 - Dominance Test		
7						4 - Morphological A		de eupportina
8							or on a separate	
9.						5 - Wetland Non-Va	scular Plants ¹	
10						Problematic Hydrop	hytic Vegetation ¹ ((Exp l ain)
11						¹ Indicators of hydric soil be present, unless distu		
N/a a div Vina Chashana (Dist sina) -	,	40	_= Total	Cover		be present, unless distu	bed of probleman	.C.
Woody Vine Stratum (Plot size: -								
1			-			Hydrophytic Vegetation		
		0	= Total	Cover		Present? Yes	No <u>X</u>	
% Bare Ground in Herb Stratum 20)							
Remarks:								
Moss 20%								

SOIL Sampling Point: W20-SP2

Profile Desc	ription: (Describ	e to the dept	h needed to document the indicator or co	nfirm the absence	e of indicators.)					
Depth	Matrix	<u></u> %	Redox Features	c ² Texture	Demonic					
(inches) 0 - 16	Color (moist) 7.5 YR 4/4	%	Color (moist) % Type ¹ Loc	<u>c²</u> <u>Texture</u> Lo	Remarks					
0-10	7.5 11(4/4				·					
					·					
										
					· ———					
¹ Type: C=Co	oncentration, D=De	epletion, RM=	Reduced Matrix, CS=Covered or Coated Sar		cation: PL=Pore Lining, M=Matrix.					
Hydric Soil I	ndicators: (Appl	icable to all L	RRs, unless otherwise noted.)	Indicat	ors for Problematic Hydric Soils³:					
Histosol	` '	-	Sandy Redox (S5)		m Muck (A10)					
	pipedon (A2)	=	Stripped Matrix (S6)		d Parent Material (TF2)					
Black Hi		-	Loamy Mucky Mineral (F1) (except MLR		ry Shallow Dark Surface (TF12)					
	n Sulfide (A4)	(0.4.4)	Loamy Gleyed Matrix (F2)	Oth	ner (Explain in Remarks)					
	d Below Dark Surfa ark Surface (A12)	ace (ATT)	Depleted Matrix (F3) Redox Dark Surface (F6)	3Indicat	ors of hydrophytic vegetation and					
	lucky Mineral (S1)	=	Nedox Dark Surface (F6) Depleted Dark Surface (F7)		and hydrology must be present,					
	ileyed Matrix (S4)	-	Redox Depressions (F8)		ss disturbed or prob l ematic.					
	_ayer (if present):									
Type:	,									
Depth (inc	ches):			Hydric Soi	I Present? Yes No X					
Remarks:			 -	1,						
rtomanto.										
HYDROLO	GY									
Wetland Hyd	drology Indicator	s:								
Primary India	ators (minimum of	one required	; check all that apply)	<u>Seco</u>	endary Indicators (2 or more required)					
Surface	Water (A1)		Water-Stained Leaves (B9) (except	t \	Water-Stained Leaves (B9) (MLRA 1, 2,					
High Wa	ter Table (A2)		MLRA 1, 2, 4A, and 4B)		4A, and 4B)					
Saturation	on (A3)		Salt Crust (B11)	(Drainage Patterns (B10)					
Water M	arks (B1)		Aquatic Invertebrates (B13)	<u> </u>	Ory-Season Water Table (C2)					
Sedimer	nt Deposits (B2)		Hydrogen Sulfide Odor (C1)	8	Saturation Visible on Aerial Imagery (C9)					
Drift Dep	oosits (B3)		Oxidized Rhizospheres along Living	Roots (C3) (Geomorphic Position (D2)					
Algal Ma	it or Crust (B4)		Presence of Reduced Iron (C4)	_ 9	Shallow Aquitard (D3)					
Iron Dep	osits (B5)		Recent Iron Reduction in Tilled Soil	s (C6) F	FAC-Neutral Test (D5)					
Surface	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (LF	RR A) F	Raised Ant Mounds (D6) (LRR A)					
Inundation	on Visib l e on Aeria	I Imagery (B7) Other (Explain in Remarks)	F	Frost-Heave Hummocks (D7)					
Sparsely	Vegetated Conca	ve Surface (B	88)							
Field Obser	vations:									
Surface Water	er Present?	Yes N	lo X Depth (inches):							
Water Table	Present?		lo X Depth (inches):							
Saturation Pr	resent?	Yes N	lo X Depth (inches): 14	Wetland Hydrolog	gy Present? Yes No X					
(includes cap										
Describe Red	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:										

Project/Site: Nisqually State Park			Citv/Cour	ntv: Pierce		Sampling Date: 12	2/21/2023
Applicant/Owner: WA State Parks					State: WA		
Dansin suran Allan					nge:		
Landform (hillslope, terrace, etc.): Forested						Slope	e (%): 0
Subregion (LRR):							
Soil Map Unit Name:					NWI classific		
Are climatic / hydrologic conditions on the sit							
Are Vegetation N, Soil N, or Hydr		-			'Normal Circumstances" p		No
Are Vegetation N, Soil N, or Hydr							NO
SUMMARY OF FINDINGS – Attac					eeded, explain any answe		itures, etc.
	es X N				•	•	· ·
	es X N			the Sampled			
	es X N		wi	thin a Wetlar	nd? Yes X	No	
Remarks:			'				
VEGETATION – Use scientific na	mes of plan	its.					
Tree Stratum (Plot size: 30		Absolute % Cover		nt Indicator ? Status	Dominance Test work		
1. ACMA3 Big Leaf Maple		40	Y	FACU	Number of Dominant Sp That Are OBL, FACW, of		(A)
2 POBAZ Cottonwood		15	Y	FAC			(//
3.					Total Number of Domin Species Across All Stra	_	(B)
4.							(-)
451		55	= Total (Cover	Percent of Dominant Sp That Are OBL, FACW, of		(A/B)
Sapling/Shrub Stratum (Plot size: 15')	E	V	EAC	Prevalence Index wor	·	
1. RUSP Salmon Berry		_ 5	<u>Y</u>	_ FAC	Total % Cover of:		by:
2						x 1 = 40	
3					FACW species 25	x 2 = 50	
4					FAC species 20	x 3 = 60	
5		5	 _ = Total (Cover	FACU species 40	x 4 = <u>160</u>	
Herb Stratum (Plot size: 5'			_ = 10tal (20 v ei		x 5 =	
1. PHAR3 Reed Canary Grass		25	<u>Y</u>	_ FACW	Column Totals: 125	(A) <u>310</u>	(B)
2. CAOB3 Slough Sedge		35	<u>Y</u>	OBL	Prevalence Index	= B/A = 2.48	
3. OESA Water Parsley		_ 5	<u>N</u>	OBL	Hydrophytic Vegetation	on Indicators:	
4					1 - Rapid Test for H		tion
5					2 - Dominance Tes		
6					☑ 3 - Prevalence Inde		
7					4 - Morphological A	Adaptations¹ (Provid s or on a separate s	
8					5 - Wetland Non-Va	•	nieet)
9					Problematic Hydro		Explain)
10 11					¹Indicators of hydric soi		
		65	= Total C	over	be present, unless distu		
Woody Vine Stratum (Plot size: -)		rotar c	,0 v C1			
1					Hydrophytic		
2					Vegetation	s X No	
0/ B O		0	_= Total C	over	Present? Yes	» <u>· · </u>	_
% Bare Ground in Herb Stratum 50 Remarks:							
Tomano.							

SOIL Sampling Point: W21-SP1

Depth						
(inches) 0 - 16	Color (moist) 10 YR 2/1	<u>%</u> 100	Color (moist) % Type ¹ L	<u>.oc²</u> <u>Texture</u> Lo Cl	Remarks Some clay at depth	
0 - 10	10 11 2/1	100_			Some day at depth	
-			- 			
			- 			
					· 	
			M=Reduced Matrix, CS=Covered or Coated S		ocation: PL=Pore Lining, M=Matrix.	
-		olicable to a	all LRRs, unless otherwise noted.)		ors for Problematic Hydric Soils ³ :	
Histosol	, ,		Sandy Redox (S5)		m Muck (A10)	
	pipedon (A2)		Stripped Matrix (S6)		d Parent Material (TF2)	
	listic (A3) en Su l fide (A4)		Loamy Mucky Mineral (F1) (except MLLoamy Gleyed Matrix (F2)	· —	ry Shallow Dark Surface (TF12)	
	en Sullide (A4) ed Below Dark Sur	face (A11)	Depleted Matrix (F3)	00	ner (Explain in Remarks)	
	ark Surface (A12)		X Redox Dark Surface (F6)	³ Indicat	ors of hydrophytic vegetation and	
	Mucky Mineral (S1		Depleted Dark Surface (F7)		and hydrology must be present,	
	Gleyed Matrix (S4)		Redox Depressions (F8)	unle	ss disturbed or problematic.	
Restrictive	Layer (if present):				
Туре:						
Depth (in	nches):			Hydric So	il Present? Yes X No	
Remarks:						
		rs:				
Wetland Hy	drology Indicato		red; check all that apply)	<u>Secc</u>	ondary Indicators (2 or more required)	
Wetland Hy	drology Indicato		red; check all that apply) _X Water-Stained Leaves (B9) (exce		ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,	
Wetland Hy Primary Indi	rdrology Indicato					
Wetland Hy Primary Indi	rdrology Indicato cators (minimum o Water (A1) ater Table (A2)		X Water-Stained Leaves (B9) (exce	pt	Water-Stained Leaves (B9) (MLRA 1, 2,	
Wetland Hy Primary India Surface X High Wa X Saturati	rdrology Indicato cators (minimum o Water (A1) ater Table (A2)		X Water-Stained Leaves (B9) (exce		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
Wetland Hy Primary India Surface X High Wa X Saturati Water M	rdrology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3)		X Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)	
Wetland Hy Primary India Surface X High Wa X Saturati Water M Sedime	rdrology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1)		 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) 		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)	
Wetland Hy Primary India Surface X High Wa X Saturati Water M Sedime Drift De	rdrology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)		 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)	
Wetland Hy Primary India Surface X High Wa X Saturati Water M Sedime Drift De	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) at or Crust (B4)		 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living 	ng Roots (C3)	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)	
Wetland Hy Primary India Surface X High Wa X Saturati Water N Sedime Drift De Algal Ma Iron Dep	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) at or Crust (B4)		 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) 	ng Roots (C3) :	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)	
Wetland Hy Primary Indi Surface X High Wa X Saturati Water M Sedime Drift De Algal Ma Iron Dep Surface Inundati	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ont Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri	of one requi	 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Stunted or Stressed Plants (D1) (I (B7) 	ng Roots (C3) ; bils (C6)	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)	
Wetland Hy Primary Indi Surface X High Wa X Saturati Water M Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) and Deposits (B2) are or Crust (B4) posits (B5) as Soil Cracks (B6) ion Visible on Aericy Vegetated Concepts (B1)	of one requi	 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Stunted or Stressed Plants (D1) (I (B7) 	ng Roots (C3) ; bils (C6)	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)	
Wetland Hy Primary Indi Surface X High Wa X Saturati Water N Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) at Soil Cracks (B6) ion Visible on Aerity Vegetated Concervations:	of one requi	 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc. Stunted or Stressed Plants (D1) (I (B7) Other (Explain in Remarks) 	ng Roots (C3) ; bils (C6)	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)	
Wetland Hy Primary Indi Surface X High Wa X Saturati Water M Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ont Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aericy Vegetated Concrvations:	of one requi	 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Some Stunted or Stressed Plants (D1) (Inc.) Other (Explain in Remarks) (B8) No X Depth (inches): 	ng Roots (C3) ; bils (C6)	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)	
Wetland Hy Primary Indi Surface X High Wa X Saturati Water N Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ont Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aericy Vegetated Concrvations:	ial Imagery (ave Surface Yes Yes X	Water-Stained Leaves (B9) (exce	ng Roots (C3) ; bils (C6) ;	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)	
Wetland Hy Primary India Surface X High Wa X Saturati Water M Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser Surface Water Table Saturation P	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) ion Sistematics (B3) at or Crust (B4) posits (B5) ion Visible on Aericly Vegetated Concervations: ter Present? Present?	ial Imagery (ave Surface Yes Yes X	 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Some Stunted or Stressed Plants (D1) (Inc.) Other (Explain in Remarks) (B8) No X Depth (inches): 	ng Roots (C3) ; bils (C6) ;	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)	
Primary India Surface X High Wa X Saturati Water M Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aericly Vegetated Concervations: ter Present? Present? Present? pullary fringe)	ial Imagery (save Surface Yes Yes Yes X Yes X	Water-Stained Leaves (B9) (exce	ng Roots (C3) ; bils (C6) ; LRR A) ;	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)	
Wetland Hy Primary India Surface X High Wa X Saturati Water M Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aericly Vegetated Concervations: ter Present? Present? Present? pullary fringe)	ial Imagery (save Surface Yes Yes Yes X Yes X	X Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	ng Roots (C3) ; bils (C6) ; LRR A) ;	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)	
Wetland Hy Primary India Surface X High Wa X Saturati Water M Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aericly Vegetated Concervations: ter Present? Present? Present? pullary fringe)	ial Imagery (save Surface Yes Yes Yes X Yes X	X Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	ng Roots (C3) ; bils (C6) ; LRR A) ;	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)	
Wetland Hy Primary Indi Surface X High Wa X Saturati Water N Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aericly Vegetated Concervations: ter Present? Present? Present? pullary fringe)	ial Imagery (save Surface Yes Yes Yes X Yes X	X Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	ng Roots (C3) ; bils (C6) ; LRR A) ;	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)	
Wetland Hy Primary Indi Surface X High Wa X Saturati Water N Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aericly Vegetated Concervations: ter Present? Present? Present? pullary fringe)	ial Imagery (save Surface Yes Yes Yes X Yes X	X Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	ng Roots (C3) ; bils (C6) ; LRR A) ;	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)	
Wetland Hy Primary India Surface X High Wa X Saturati Water N Sedime Drift De Algal Ma Iron Dep Surface Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicatoricators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aericly Vegetated Concervations: ter Present? Present? Present? pullary fringe)	ial Imagery (save Surface Yes Yes Yes X Yes X	X Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	ng Roots (C3) ; bils (C6) ; LRR A) ;	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)	

Applicant/Owner: WA State Parks Scate: WA Sampling Point: W21-SP2	Project/Site: Nisqually State Park		City/County	Pierce	Sampling Date: 12/21/2023	
Section Section Section Section Section Section Township Range None	Applicant/Owner: WA State Parks					
Lat: Loral relief (concave, convex, none): none Slope (%): 2	Investigator(s): Dominguez, Allen					· · ·
Lat:						Slope (%): 2
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 (If 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 X Is the Sampled Area within a Wetland? Yes No X within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Yes No X Is the Sampled Area within a Wetland? Yes No X Is the Sampled Area within a Wetland? Yes No X Yes No X Is the Sampled Area within a Wetland? Yes No X Is the Sampled Area wit						
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 (If 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 X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present?						
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 X Weltand Hydrology Present? Yes No X						
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.						
No X Summary OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes						·
Vetland Hydrology Present? Yes No X within a Wetland? Yes No X Wetland? Yes No X Wet	Hydrophytic Vegetation Present? Yes	No X				
No No No No No No No No						No X
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30') 1. PSME Douglas Fir 2. POBAZ Cottonwood 30 Y FAC 3. 4. 5. COCO6 Beaked Hazelnut 4. 5. 60		No <u>X</u>	With	iii a vveuai	iur res	NO <u></u>
Absolute Dominant Indicator Species? Status	Remarks:					
Absolute Dominant Indicator Species? Status						
Absolute Dominant Indicator Species? Status	VEGETATION – Use scientific names of pl	ants.				
Tree Stratum (Plot size: 30') % Cover 40 Y FACU Species? Status FACU Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) 2. POBAZ Cottonwood 30 Y FAC Total Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) 3			Dominant	Indicator	Dominance Test work	sheet:
2. POBAZ Cottonwood 30 Y FAC Total Number of Dominant Species Across All Strata: 6 (B) 4	·	% Cover	Species?	Status		
Total Number of Dominant Species Across All Strata: 6 (B)					That Are OBL, FACW,	or FAC: 1 (A)
4			· Y	FAC	Total Number of Domir	
Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: .16 (A/B)					Species Across All Stra	ata: 6 (B)
Sapling/Shrub Stratum (Plot size: 15') 1. GASH Salal 30	4					
1. GASH Salal 2. ACCI Vine Maple 3. COCO6 Beaked Hazelnut 4	Sapling/Shrub Stratum (Plot size: 15'		Total Co	vei		(17.6)
2. ACCT VITE Maple 3. COCO6 Beaked Hazelnut 4	1. GASH Salal	30	Y	FACU		
3. COCOO BEARED HAZEITHIT 4						
4	3. COCO6 Beaked Hazelnut	20	<u>Y</u>	FACU		
5	4					
	5	<u></u>				
Herb Stratum (Plot size: 5') UPL species x 5 =	Herb Stratum (Plot size: 5'	00	_ = Total Co	ver	UPL species	x 5 =
1. POMU Sword Fern 50 Y FACU Column Totals: (A) (B)		50	Y	FACU	Column Totals:	(A) (B)
2. RUUR Trailing Blackberry 15 Y FACU Prevalence Index = B/A =	2. RUUR Trailing Blackberry	15	Υ	FACU		
3 Hydrophytic Vegetation Indicators:	3					
4 1 - Rapid Test for Hydrophytic Vegetation	4				1 - Rapid Test for	Hydrophytic Vegetation
5 2 - Dominance Test is >50%					2 - Dominance Tes	st is >50%
6 3 - Prevalence Index is ≤3.0 ¹					l 	
7 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)					4 - Morphological /	Adaptations ¹ (Provide supporting
10 Problematic Hydrophytic Vegetation (Explain) 11 Indicators of hydric soil and wetland hydrology must			-			
65 = Total Cover be present, unless disturbed or problematic.		0.5	= Total Cov			
Woody Vine Stratum (Plot size:)	Woody Vine Stratum (Plot size:)		_ 10.01.001			
1 Hydrophytic	1					
2	2				Vegetation Present? Ye	es No X
% Bare Ground in Herb Stratum 40	 % Bare Ground in Herb Stratum 40	U	_= Total Cov	/er		
Remarks:					1	

SOIL Sampling Point: W21-SP2

Profile Desc	ription: (Descril	oe to the de	epth neede	ed to docun	nent the i	ndicator	or confirm	n the absence of indicators.)
Depth	Matrix		_		x Features	<u> </u>		
(inches)	Color (moist)	%	<u>Color</u>	(moist)	%	Type ¹	Loc ²	Texture Remarks
0 - 4	10 YR 3/1	100						Silt/Loam
4 - 16	10 YR 4/2	100						Silt/Clay
	-		_		-			
	-							
	-							
	oncentration, D=D						d Sand Gr	
Hydric Soil I	ndicators: (App	licable to a	ıll LRRs, u	nless other	wise note	ed.)		Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)			dy Redox (S				2 cm Muck (A10)
	pipedon (A2)			oped Matrix				Red Parent Material (TF2)
Black His				my Mucky N			MLRA 1)	
	n Su l fide (A4)			my G l eyed I)		Other (Explain in Remarks)
	Below Dark Surf	ace (A11)		leted Matrix				2
	rk Surface (A12)			lox Dark Sur				³ Indicators of hydrophytic vegetation and
	lucky Mineral (S1			leted Dark S		7)		wetland hydrology must be present,
	leyed Matrix (S4)		Red	ox Depress	ions (F8)			unless disturbed or problematic.
	ayer (if present)							
Type:								Y
Depth (inc	ches):							Hydric Soil Present? Yes No X
Remarks:								
HYDROLO	CV							
_	drology Indicator							
-	ators (minimum c	of one requir	ed; check					Secondary Indicators (2 or more required)
	Water (A1)			Water-Stai			xcept	Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ter Tab l e (A2)				1, 2, 4A, a	nd 4B)		4A, and 4B)
Saturatio	on (A3)			Salt Crust	(B11)			Drainage Patterns (B10)
Water M	arks (B1)			Aquatic Inv	ertebrates	s (B13)		Dry-Season Water Table (C2)
Sedimen	it Deposits (B2)			Hydrogen	Sulfide Od	lor (C1)		Saturation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)			Oxidized R	hizospher	es along	Living Roc	ots (C3) Geomorphic Position (D2)
Algal Ma	t or Crust (B4)			Presence of	of Reduce	d Iron (C4	1)	Shallow Aquitard (D3)
Iron Dep	osits (B5)			Recent Iron	n Reductio	on in Tille	d Soi l s (C6	6) FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)			Stunted or	Stressed	Plants (D	1) (LRR A	Raised Ant Mounds (D6) (LRR A)
Inundation	on Visib l e on Aeri	al Imagery (B7)	Other (Exp	lain in Re	marks)		Frost-Heave Hummocks (D7)
Sparsely	Vegetated Conc	ave Surface	e (B8)					
Field Observ	vations:							
Surface Water	er Present?	Yes	_ No X	_ Depth (inc	ches):		_	
Water Table	Present?			_ Depth (inc				
Saturation Pr				Depth (inc			II.	land Hydrology Present? Yes No X
(includes cap		.00		_ Dopui (iii			_ '''	
Describe Red	corded Data (strea	am gauge, r	monitoring	well, aerial p	hotos, pre	evious ins	pections),	if available:
Remarks:								

Project/Site: Nisqually State Park		City/County: Pierce Sampling Date: 12/				
Applicant/Owner: WA State Parks	_	State: WA Sampling Point: W22-SP1				
- · · · · · · · · · · · · · · · · · · ·				nge:		
				convex, none): Concave Slope (%):		
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation N, Soil N, or Hydrology N, s	significantly	disturbed?	Are '	'Normal Circumstances" present? Yes X No		
Are Vegetation N, Soil N, or Hydrology N, r	naturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point I	ocations, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes X N	o					
l v	o		e Sampled			
Wetland Hydrology Present? Yes X N	0	With	in a Wetlai	nd? Yes X No		
Remarks:						
└ VEGETATION – Use scientific names of plan	te					
VEGETATION - 03e scientific frames of plan	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30'</u>)		Species?	Status	Number of Dominant Species		
1. ACMA3 Big Leaf Maple	- 15	<u>Y</u>	FACU	That Are OBL, FACW, or FAC: 6 (A)		
2. THPL Red Cedar	40	<u>Y</u>	FAC	Total Number of Dominant		
3				Species Across All Strata: 6 (B)		
4	55			Percent of Dominant Species		
Sapling/Shrub Stratum (Plot size: 15'		_ = Total Co	over	That Are OBL, FACW, or FAC: 1 (A/B)		
1. ALRU Red Alder	20	<u>Y</u>	FAC	Prevalence Index worksheet:		
2. ACCI Vine Maple	30	<u>Y</u>	FAC	Total % Cover of: Multiply by: OBL species 10 x 1 = 10		
3				FACW species x 2 =		
4				FAC species 90 x 3 = 270		
5	50			FACU species 20 x 4 = 80		
Herb Stratum (Plot size: 5'		_ = Total Co	over	UPL species x 5 =		
1. CAOB3 Slough Sedge	10	<u>Y</u>	OBL	Column Totals: 120 (A) 360 (B)		
2. POMU Sword Fern	5	<u>Y</u>	FACU	Prevalence Index = B/A = 3		
3				Hydrophytic Vegetation Indicators:		
4				1 - Rapid Test for Hydrophytic Vegetation		
5				2 - Dominance Test is >50%		
6				3 - Prevalence Index is ≤3.0¹		
7				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
8				5 - Wetland Non-Vascular Plants ¹		
10				Problematic Hydrophytic Vegetation ¹ (Explain)		
11.				¹ Indicators of hydric soil and wetland hydrology must		
	15	= Total Co	ver	be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size:)						
1				Hydrophytic Vegetation		
2	0	= Total Co		Present? Yes X No		
% Bare Ground in Herb Stratum <u>85</u>		_ rotal Co	vei			
Remarks:						
Moss on elevated area.						

SOIL Sampling Point: W22-SP1

Color (moist) % Color (moist) % Eyee Loc Secure Remarks	Depth	<u>Matrix</u>			x Features	1 2	T . (5
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. "Location: PL=Pore Lining, M=Matrix, Plydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histoso (IA1)				Color (moist)	<u> % Type'</u>			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains. \$\frac{1}{2} Location: PL=Pore Lining, M=Matrix. Plydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)								Come day at depth
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	14 - 10	GLET I 3/IN	100				/Cl	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	1- 0.0						21	
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loarny Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loarny Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X. Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1) Water-Stained Leaves (B9) (except MLRA 1) Water-Stained Leaves (B9) (except MLRA 1) Water Table (A2) MLRA 1, 2, 4A, and 4B) Water Marks (B1) Sati Crust (B11) Drainage Patterns (B10) Drift Deposits (B2) Hydrogen Sulfide (A1) Sediment Deposits (B2) Hydrogen Sulfide (A2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Drift Deposits (B3) Surface (B8) Recent Internal Remarks) Presence of Reduced Iron (C4) Raise And Apolation Visible on Aerial Imagery (C9) Sourface Soil Cracks (B6) Surface (B8) Surface Soil Cracks (B6) Surface (B8) Surface Soil Cracks (B6) Surface (B8) Fleid Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water All Hydrology Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):						Sand Grains		
Histic Epipedon (A2)	-		nouble to ui		-			•
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)					,			, ,
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) * Indicators of hydrophytic vegetation and wetland hydrology must be present.						ILRA 1)		
Thick Dark Surface (A12)							Oth	er (Explain in Remarks)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:			ace (A11)				3	
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present):	_	' '	.					
Restrictive Layer (if present):		-			` '			
Pepth (inches):				redex Beprees	10110 (1 0)		411100	or dictal bod of problematic.
Applicators Applicators								
Applicators Applicators	Depth (in	iches):				н	lydric Soil	Present? Yes X No
Surface Water (A1)			rs:					
X High Water Table (A2)MLRA 1, 2, 4A, and 4B)4A, and 4B)X Saturation (A3)Salt Crust (B11)Drainage Patterns (B10)Water Marks (B1)Aquatic Invertebrates (B13)Dry-Season Water Table (C2)Sediment Deposits (B2)Hydrogen Sulfide Odor (C1)Saturation Visible on Aerial Imagery (C9)Drift Deposits (B3)Oxidized Rhizospheres along Living Roots (C3)Geomorphic Position (D2)Algal Mat or Crust (B4)Presence of Reduced Iron (C4)Shallow Aquitard (D3)Iron Deposits (B5)Recent Iron Reduction in Tilled Soils (C6)FAC-Neutral Test (D5)Surface Soil Cracks (B6)Stunted or Stressed Plants (D1) (LRR A)Raised Ant Mounds (D6) (LRR A)Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Frost-Heave Hummocks (D7)Sparsely Vegetated Concave Surface (B8)Field Observations:Surface Water Present?YesNoDepth (inches):Water Table Present?YesNoDepth (inches):Wetland Hydrology Present? Yes XNoSaturation Present?Yes XNoDepth (inches):Wetland Hydrology Present? Yes XNoCincludes capillary fringe)Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			f one require					
X Saturation (A3)						ept	v	
Water Marks (B1)		, ,					_	•
Sediment Deposits (B2)								
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)							·	•
Algal Mat or Crust (B4)						ina Roots (·	
Iron Deposits (B5)						ring recoto (
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present?					` ,	Soils (C6)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present?								
Field Observations: Surface Water Present? Yes No Depth (inches): 4 Water Table Present? Yes X No Depth (inches): 6 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inundati	ion Visib l e on Aeria	al Imagery (E				F	rost-Heave Hummocks (D7)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): 4 Saturation Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Sparsel	y Vegetated Conc	ave Surface	(B8)				
Water Table Present? Yes X No Depth (inches): 4 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Obser	rvations:						
Water Table Present? Yes X No Depth (inches): 4 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Wat	ter Present?	Yes	No X Depth (inc	ches):			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table	Present?	Yes X	No Depth (inc	ches): <u>4</u>			V
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			Yes X	No Depth (inc	ches): 0	Wetland	Hydrolog	y Present? Yes <u>X </u>
			am gauge, m	onitoring well, aerial p	hotos, previous inspe	ctions), if av	/ailable:	
Remarks:		•	•		·	•		
	Remarks:							

Project/Site: Nisqually State Park	City	//County:	Pierce	Sampling Date: 12/21/2023			
Applicant/Owner: WA State Parks						Sampling Point: W22-SF	
Investigator(s): Dominguez, Allen							
Landform (hillslope, terrace, etc.): Hillslope						Slope (%):	3
Subregion (LRR):							
Soil Map Unit Name:							
Are climatic / hydrologic conditions on the si							
Are Vegetation N , Soil N , or Hydi		-				resent? Yes X No	
Are Vegetation \overline{N} , Soil \overline{N} , or Hydi					eded, explain any answer		
SUMMARY OF FINDINGS – Attac				•	•	·	s, etc.
Hydrophytic Vegetation Present?	′es No X	·					
	′es No <u>X</u>			Sampled		No X	
	′es No <u>X</u>	·	Within	n a Wetlan	ur res	NO <u>/-</u>	
Remarks:							
VEGETATION – Use scientific na	mes of plants						
	<u> </u>	osolute D	ominant	Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 30'	<u>%</u>	Cover S	pecies?	Status	Number of Dominant Sp		
1. ACMA3 Big Leaf Maple	$\frac{5}{2}$			FACU FAC	That Are OBL, FACW, o	or FAC: 1	(A)
2. THPL Red Cedar	$\frac{3}{1}$	0 Y 5 N		FACIL	Total Number of Domina		
3. PSME Douglas Fir		<u> </u>		FACU_	Species Across All Strat	ta: <u>4</u>	(B)
4			 Total Cov		Percent of Dominant Sp		
Sapling/Shrub Stratum (Plot size: 15'			Total Cov	ei	That Are OBL, FACW, o	<u></u>	(A/B)
1. GASH Salal				FACU	Prevalence Index work		
2. ALRU Red Alder	5	<u>N</u>		FAC	•	<u>Multiply by:</u> x 1 =	
3						x 2 =	
4						x 3 =	
5		5 = -				x 4 =	
Herb Stratum (Plot size: 5'	<u> </u>	=	Total Cov	er	UPL species	x 5 =	-
1. POMU Sword Fern		0 <u>Y</u>		FACU	Column Totals:	(A)	(B)
2. RUUR Trailing Blackberry	2	<u>N</u>		FACU_	Prevalence Index	= B/A =	
3					Hydrophytic Vegetatio		_
4					1 - Rapid Test for H	lydrophytic Vegetation	
5					2 - Dominance Test	t is >50%	
6					3 - Prevalence Inde		
7					4 - Morphological A	daptations ¹ (Provide supp s or on a separate sheet)	orting
8					5 - Wetland Non-Va		
9						phytic Vegetation ¹ (Explain	1)
10 11						and wetland hydrology m	
···			otal Cove		be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size: -)						
1					Hydrophytic		
2					Vegetation Present? Yes	s No X	
% Bare Ground in Herb Stratum 20	<u>0</u>	= T	otal Cove	er			
Remarks:							

SOIL Sampling Point: W22-SP2

Profile Desc	ription: (Describ	e to the dep	th needed to do	cument the i	ndicator	or confirm	the absence	of indicators.)		
Depth	Matrix			dox Feature		. 2				
(inches)	Color (moist)		Color (moist)		Type ¹	Loc ²	<u>Texture</u>	Remarks	3	
<u>0 - 16</u>	10 YR 3/2	_ 100					Lo/Gravel			
	=		-							
									_	
				-						
¹ Type: C=Co	oncentration, D=De	epletion, RM	=Reduced Matrix,	CS=Covered	d or Coate	ed Sand Gr	ains. ² Loca	ation: PL=Pore Lining,	M=Matrix.	
Hydric Soil	ndicators: (Appli	icab l e to all	LRRs, unless ot	herwise not	ed.)		Indicator	rs for Problematic Hy	dric Soi l s³:	
Histosol	(A1)		Sandy Redo	x (S5)			2 cm	Muck (A10)		
Histic Ep	oipedon (A2)		Stripped Mat	rix (S6)				Parent Material (TF2)		
Black Hi	stic (A3)		Loamy Muck	y Mineral (F	1) (except	t MLRA 1)	Very	Shallow Dark Surface	(TF12)	
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (F2	<u>!</u>)		Othe	er (Explain in Remarks)		
	d Below Dark Surfa	ice (A11)	Depleted Ma	` '						
	ark Surface (A12)		Redox Dark	, ,				rs of hydrophytic vegeta		
	lucky Mineral (S1)		Depleted Da		7)			nd hydrology must be p		
	leyed Matrix (S4)		Redox Depre	essions (F8)			unless	s disturbed or prob l ema	atic.	
Restrictive I	_ayer (if present):									
Type:									V	
Depth (in	ches):						Hydric Soil	Present? Yes	No X	
Remarks:										
Pea Grav	el, 3" Duff									
HYDROLO	GY									
Wetland Hy	drology Indicators	s:								
Primary India	ators (minimum of	one require	d; check all that a	oply)			<u>Secon</u>	dary Indicators (2 or m	ore required)	
Surface	Water (A1)		Water-S	Stained Leav	es (B9) (e	xcept	W	ater-Stained Leaves (E	89) (MLRA 1, 2,	
— High Wa	ter Table (A2)		·	RA 1, 2, 4A, a		•	4A, and 4B)			
Saturation	, ,			ust (B11)	,		Drainage Patterns (B10)			
	arks (B1)			Invertebrate	s (B13)		Dry-Season Water Table (C2)			
	nt Deposits (B2)			en Sulfide O				, aturation Visib l e on Aer		
	oosits (B3)		, ,		` '	Livina Roo		eomorphic Position (D2	3 3 · ,	
-	it or Crust (B4)			ce of Reduce	_	-	· · · —	nallow Aquitard (D3)	-/	
	osits (B5)			Iron Reducti			· · · · · · · · · · · · · · · · · · ·	AC-Neutral Test (D5)		
	Soil Cracks (B6)			or Stressed			-	aised Ant Mounds (D6)	(IRRA)	
	on Visib l e on Aeria	I Imagany (B		Exp l ain in Re		1) (LIXIX A)		ost-Heave Hummocks	, ,	
	Vegetated Conca			_xpiaiii iii i\e	illaiks)			USI-Heave Hullillocks	(07)	
		ve Suriace (B0)							
Field Obser			Y							
Surface Water			No X Depth							
Water Table			No X Depth							
Saturation P	resent?	Yes	No X Depth	(inches):		Wetla	and Hydro <mark>l</mark> ogy	Present? Yes	No X	
(includes cap			anitaring wall gari	al abataa aa	aviava ina	·nactions\	if available:			
Describe Re	corded Data (strea	m gauge, m	onitoring well, aen	ai photos, pr	evious ins	spections),	ii available.			
Remarks:										

Project/Site: Nisqually State Park	(City/County: Pierce Sampling Date: 12				
		State: WA Sampling Point: W23-SP1				
				nge:		
					Slope (%): 0	
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation N , Soil Y , or Hydrology Y si	gnificantly	disturbed?	Are "	'Normal Circumstances" pr	esent? Yes X No	
Are Vegetation N, Soil N, or Hydrology N na				eeded, explain any answers		
SUMMARY OF FINDINGS - Attach site map s	showing	sampling	g point l	ocations, transects,	important features, etc.	
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No			e Sampled in a Wetlar		No	
Wetland Hydrology Present? Yes X No	<u> </u>	With		iu: res	_ 110	
Remarks:						
VEGETATION – Use scientific names of plant	s.					
7 0 4 30'	Absolute	Dominant		Dominance Test works	heet:	
Tree Stratum (Plot size: 30' 1. POBAZ Cottonwood	% Cover 10	Species? Y	<u>Status</u> FAC	Number of Dominant Sp		
2.				That Are OBL, FACW, o	r FAC: 3 (A)	
3				Total Number of Domina Species Across All Strate	1	
4.						
AEI.	10	= Total Co	ver	Percent of Dominant Spe That Are OBL, FACW, o		
Sapling/Shrub Stratum (Plot size: 15')	5	V	EACH	Prevalence Index work		
1. ACMAZ Big Leaf Maple				Total % Cover of:	Multiply by:	
2				OBL species	x 1 =	
3				FACW species 30		
5.					x 3 = 60	
-	5	= Total Co	ver	FACU species 5		
Herb Stratum (Plot size: 5')	30	Υ	FACW		x 5 = (A) 140 (B)	
1. JUEF Common Rush 2. POA	10	<u>Y</u>	FAC		(2)	
					= B/A =	
3				Hydrophytic Vegetation		
5.				2 - Dominance Test	ydrophytic Vegetation	
6				3 - Prevalence Index		
7.					daptations ¹ (Provide supporting	
8				data in Remarks	or on a separate sheet)	
9				5 - Wetland Non-Va		
10					hytic Vegetation ¹ (Explain)	
11	40			Indicators of hydric soil be present, unless distur	and wetland hydrology must bed or problematic.	
Woody Vine Stratum (Plot size:)	40	_= Total Cov	er			
1				Hydrophytic		
2.				Vegetation	V	
95	0	= Total Cov	er	Present? Yes	X No	
% Bare Ground in Herb Stratum 85 Remarks:						
Ditch is ppen water edge to edge.						
POA presumed FAC due to lack of inflo	rescend	ce.				

SOIL Sampling Point: W23-SP1

Profile Desc	ription: (Describe	to the de	pth needed to d	ocument the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix	2,		Redox Feature		. 2	- .	
(inches)	CLEV 1 5/564	- <u>%</u>	Color (moist) %	Type ¹	Loc ²	Texture CL C:	Remarks
0 - 16	GLEY 1 5/564	100					Cl, Si	With pea gravel
		_	-					
		_						
		_						
1Type: C=C			. ————————————————————————————————————	. CS=Cavara	d or Coata	d Cand Cr	oine ² l e	cation: PL=Pore Lining, M=Matrix.
	ncentration, D=Dep ndicators: (Applic					a Sana Gr		ors for Problematic Hydric Soils ³ :
Histosol		abic to a			cuij			•
	oipedon (A2)		Sandy Red Stripped M					n Muck (A10) I Parent Material (TF2)
Black Hi				cky Mineral (F	1) (except	MLRA 1)		y Shallow Dark Surface (TF12)
	n Sulfide (A4)			yed Matrix (F2		,		er (Explain in Remarks)
	l Below Dark Surfac	ce (A11)	Depleted M		,		<u>—</u>	,
Thick Da	ırk Surface (A12)			k Surface (F6)			³ Indicato	ors of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		x Depleted D	ark Surface (F	7)		wetla	nd hydrology must be present,
	leyed Matrix (S4)		Redox Dep	ressions (F8)			unles	ss disturbed or problematic.
	ayer (if present):							
	cked Gravel							V
Depth (inc	ches): <u>8"</u>						Hydric Soil	Present? Yes X No
Remarks:								
Gleyed m	natrix through	out sub	osurface sa	turation				
	01/							
HYDROLO								
Wetland Hyd	drology Indicators	:						
Primary Indic	ators (minimum of	one require	ed; check all that	apply)			<u>Seco</u>	ndary Indicators (2 or more required)
_X Surface	Water (A1)		Water	-Stained Leav	es (B9) (e	xcept	v	Vater-Stained Leaves (B9) (MLRA 1, 2,
X High Wa	ter Tab l e (A2)		ML	.RA 1, 2, 4A, a	and 4B)			4A, and 4B)
X Saturation	on (A3)			rust (B11)			0	rainage Patterns (B10)
Water M	arks (B1)		Aquat	ic Invertebrate	s (B13)		0	ry-Season Water Table (C2)
Sedimer	it Deposits (B2)		X Hydro	gen Su l fide O	dor (C1)		s	aturation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Oxidiz	ed Rhizosphe	res a l ong	Living Roo	ts (C3) G	Geomorphic Position (D2)
Algal Ma	t or Crust (B4)		Prese	nce of Reduce	ed Iron (C4	4)	s	hallow Aquitard (D3)
Iron Dep	osits (B5)		Recer	nt Iron Reducti	on in Tille	d Soi l s (C6) F	AC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunte	ed or Stressed	Plants (D	1) (LRR A)) R	aised Ant Mounds (D6) (LRR A)
Inundation	on Visib l e on Aerial	Imagery (E	37) Other	(Explain in Re	emarks)		F	rost-Heave Hummocks (D7)
Sparsely	Vegetated Concav	e Surface	(B8)					
Field Obser								
Surface Wate	er Present?	res X	No Dept	h (inches): 3"				
Water Table			No Dept			_		
Saturation P			No Dept			— Wetla	and Hydrolog	y Present? Yes X No
(includes cap	illary fringe)							, 11000min 100 <u></u> 110 <u></u>
Describe Red	corded Data (strean	n gauge, m	nonitoring well, a	rial photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: Nisqually State Park	: Pierce	Sampling Date: 12/21/2023					
Applicant/Owner: WA State Parks					Sampling Point: W23-SP2		
Investigator(s): Dominguez, Allen							
				convex, none): Convez	Slope (%):	10	
		Long: Datum:					
Soil Map Unit Name:							
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation N, Soil N, or Hydrology N	-			'Normal Circumstances" p)	
Are Vegetation N, Soil N, or Hydrology N				eeded, explain any answei			
SUMMARY OF FINDINGS – Attach site ma					·	s, etc.	
Hydrophytic Vegetation Present? Yes	No X						
Hydric Soil Present? Yes			e Sampled		No X		
Wetland Hydrology Present? Yes	No <u>X</u>	with	in a Wetlar	id? fes	NO <u>^</u>		
Remarks:							
VECETATION III : 4'6'	4						
VEGETATION – Use scientific names of plants				1			
Tree Stratum (Plot size: 30'	Absolute % Cover	Dominant Species?		Dominance Test works			
1. POBAZ Cottonwood	20	Y	FAC	Number of Dominant Sp That Are OBL, FACW, of		(A)	
2. THPL Red Cedar	20	Υ	FAC			, ,	
3. PSME Douglas Fir	10	<u>Y</u>	FACU	Total Number of Domini Species Across All Stra	•	(B)	
4				Percent of Dominant Sp	nacias		
Casting/Objects (Distance 15'	50	_ = Total Co	ver	That Are OBL, FACW, of		(A/B)	
Sapling/Shrub Stratum (Plot size: 15')	35	Υ	FACU	Prevalence Index worl	ksheet:		
2. HODI Ocean Spray		<u>Y</u>		Total % Cover of:	Multiply by:	_	
3.				OBL species	x 1 =	_	
4					x 2 =		
5.					x 3 =		
	50	= Total Co	ver		x 4 =		
Herb Stratum (Plot size: 5'			E 4 O L L		x 5 =		
1. POMU Sword Fern	$-\frac{50}{10}$	Y	FACU	Column Totals:	(A)	_ (B)	
2. RUUR Trailing Blackberry	10	<u>N</u>	FACU		= B/A =	_	
3				Hydrophytic Vegetation			
4				1 - Rapid Test for H			
5				2 - Dominance Tes			
6 7				3 - Prevalence Inde		4!	
8.				data in Remarks	daptations ¹ (Provide supp s or on a separate sheet)	oorting	
9.				5 - Wetland Non-Va	ascular Plants ¹		
10.				Problematic Hydrop	ohytic Vegetation¹ (Exp l ai	n)	
11.					l and wetland hydrology m	nust	
	00	= Total Cov	/er	be present, unless distu	rbed or problematic.		
Woody Vine Stratum (Plot size:)							
1				Hydrophytic			
2		 = Total Cov		Vegetation Present? Yes	s No X		
% Bare Ground in Herb Stratum 20	-	rotal Cov	ver				
Remarks:				1			
Roadside ditch impounding water							

SOIL Sampling Point: W23-SP2

Profile Desc	ription: (Describ	oe to the de	pth neede	d to docun	nent the i	ndicator	or confirm	the absenc	e of indicators.)
Depth	Matrix				x Features	3			
(inches)	Color (moist)		<u>Color</u>	(moist)	<u></u> %	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks
0 - 8	10 YR 3/2	100						Lo	Small Gravel, Pea Size
8 - 16	10 YR 4/4	100						Lo	Small Gravel, Pea Size
			-						
							•		
	-								
-									· ——
1								. 2.	
	oncentration, D=D						ed Sand Gr		ocation: PL=Pore Lining, M=Matrix.
_	ndicators: (App	licable to a				ea.)			tors for Problematic Hydric Soils ³ :
Histosol	. ,			dy Redox (S					cm Muck (A10)
	oipedon (A2)			ped Matrix		\	MI DA 4		ed Parent Material (TF2)
Black His	n Sulfide (A4)			ny Mucky M ny Gleyed I			(WILKA 1)		ry Shallow Dark Surface (TF12) her (Explain in Remarks)
	l Below Dark Surf	ace (Δ11)		leted Matrix		,		0	nei (Explain in Nemarks)
	ark Surface (A12)	acc (/111)		ox Dark Sur				3Indica	tors of hydrophytic vegetation and
	lucky Mineral (S1))		eted Dark S		7)			and hydrology must be present,
	leyed Matrix (S4)			ox Depress		- /			ess disturbed or problematic.
	ayer (if present)				, ,				· ·
Type:									
Depth (inc	ches):							Hydric So	il Present? Yes No X
Remarks:	,							1	
	el, 3" Duff								
i oa orav	oi, o ban								
HYDROLO(GY								
Wetland Hyd	drology Indicator	rs:							
_	ators (minimum o		ed: check a	all that apply	()			Sec	ondary Indicators (2 or more required)
	Water (A1)			Water-Stai		es (R9) (e	vcent		Water-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)		_		1, 2, 4A, a		хоорс	_	4A, and 4B)
Saturatio				Salt Crust		iiu 46)			Drainage Patterns (B10)
	` '		· 			o (D13)		·	Dramage Fatterns (B10) Dry-Season Water Table (C2)
	arks (B1)			Aquatic Inv				· · · · · · · · · · · · · · · · · · ·	
·	nt Deposits (B2)		·	Hydrogen :			Listan Dan	· · · · · · · · · · · · · · · · · · ·	Saturation Visible on Aerial Imagery (C9)
	oosits (B3)						_		Geomorphic Position (D2)
	t or Crust (B4)		·	Presence of					Shallow Aquitard (D3)
	osits (B5)			Recent Iron					FAC-Neutral Test (D5)
	Soil Cracks (B6)	,		Stunted or			1) (LRR A		Raised Ant Mounds (D6) (LRR A)
' 	on Visible on Aeria			Other (Exp	lain in Re	marks)		_	Frost-Heave Hummocks (D7)
	Vegetated Conc	ave Surface	(B8)						
Field Observ	vations:		V						
Surface Water			. No X						
Water Table	Present?	Yes	_ No <u>X</u>	Depth (inc	ches):		_		
Saturation Pr		Yes	No X	Depth (inc	ches):		Wetla	and Hydrolo	gy Present? Yes No X
(includes cap Describe Red	oillary fringe) corded Data (strea	am gauge r	nonitoring v	vell aerial r	hotos pre	evious ins	nections)	if available.	
Describe Nec	soraca Bata (stret	arri gaago, r	nontoning v	veli, aeriai p	motos, pre	ovious iris	pcolions),	ii available.	
Domarke									
Remarks:									

Project/Site: Nisqually State Park		City/Cour	nty: Pierce		_ Sampling Date: _	12/21/2023
Applicant/Owner: WA State Parks				State: WA		
5				nge:		
Landform (hillslope, terrace, etc.):					Slor	pe (%): 0
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for						
Are Vegetation N , Soil N , or Hydrology N	_ significantly	disturbed	d? Are "	Normal Circumstances"	present? Yes X	No
Are Vegetation N , Soil N , or Hydrology N	_ naturally pro	blematic	? (If ne	eded, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site ma	p showing	sampl	ing point le	ocations, transect	s, important fe	atures, etc.
Hydrophytic Vegetation Present? Yes						
Hydric Soil Present? Yes X			the Sampled ithin a Wetlar		No	
Wetland Hydrology Present? Yes X	No	•	itiiii a vvetiai	iu: 165		•
Remarks:						
VEGETATION – Use scientific names of pla	ante					
VEGETATION – Ose scientific flames of pic	Absolute	Domina	ant Indicator	Dominance Test wor	rksheet:	
<u>Tree Stratum</u> (Plot size: <u>30'</u>)	% Cover		s? Status	Number of Dominant		
1. ACMA3 Big Leaf Maple	30	<u>Y</u>	FACU_	That Are OBL, FACW		(A)
2				Total Number of Dom		
3				Species Across All Str	rata: <u>3</u>	(B)
4	 30	- Total		Percent of Dominant S		
Sapling/Shrub Stratum (Plot size: 15')		_ = Total	Cover	That Are OBL, FACW	-	(A/B)
1. ACCI Vine Maple	80	<u>Y</u>	FAC	Prevalence Index wo		
2. ALRU Red Alder	10	N	<u>FAC</u>	Total % Cover of: OBL species		y by:
3				FACW species		
4					x 3 = 270	
5				FACU species 60	x 4 = 240	
Herb Stratum (Plot size: 5'		_ = Total	Cover		x 5 =	
1. RUUR Trailing Blackberry	5	<u>N</u>	FACU_	Column Totals: 150	(A) <u>510</u>	(B)
2. POMU Sword Fern	25	<u>Y</u>	FACU	Prevalence Inde	x = B/A = 3.4	
3				Hydrophytic Vegetat	ion Indicators:	<u></u>
4				1 - Rapid Test for		ation
5				2 - Dominance Te		
6				3 - Prevalence Inc		
7 8				4 - Morphological data in Remar	ks or on a separate	de supporting sheet)
9				5 - Wetland Non-	•	,
10				Problematic Hydr	ophytic Vegetation ¹	(Explain)
11.				¹ Indicators of hydric s		
	30	_= Total C	Cover	be present, unless dis	turbed or problemat	liC.
Woody Vine Stratum (Plot size:)						
1				Hydrophytic Vegetation		
2	•	= Total C	— ——— Cover	Present? Y	es No <u>X</u>	
% Bare Ground in Herb Stratum						
Remarks:						
Moss mixed with bare ground						

SOIL Sampling Point: W24-SP1

Depth	Matrix		Redox Features	
(inches) 0 - 14	Color (moist) 7.5 YR 3/1	<u>%</u> 100	Color (moist) % Type ¹ Loc ²	Texture Remarks Si, Lo
				<u> </u>
14 - 16	7.5 YR 4/1	_ 100		Si, Cl
			M=Reduced Matrix, CS=Covered or Coated Sand (Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
-		iicabie to a	all LRRs, unless otherwise noted.)	•
Histosol	oipedon (A2)		Sandy Redox (S5) Stripped Matrix (S6)	2 cm Muck (A10) Red Parent Material (TF2)
	istic (A3)		Loamy Mucky Mineral (F1) (except MLRA 1	
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
	d Below Dark Surf	ace (A11)	X Depleted Matrix (F3)	
·	ark Surface (A12)		Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted Dark Surface (F7)	wetland hydrology must be present,
	Gleyed Matrix (S4) Layer (if present)		Redox Depressions (F8)	unless disturbed or problematic.
Type:	Layer (II present)			
Depth (in				Hydric Soil Present? Yes X No
. ,	Cites)			Thyunc soil i resent: Tes No
Remarks:				
HYDROLO	GY drology Indicator	s:		
HYDROLO Wetland Hy Primary India	drology Indicator		red; check all that apply)	Secondary Indicators (2 or more required)
HYDROLO Wetland Hy Primary India	drology Indicator cators (minimum o Water (A1)		red; check all that apply) Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLO Wetland Hy Primary India _X Surface X High Wa	drology Indicator cators (minimum o Water (A1) ater Table (A2)		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)		Water-Stained Leaves (B9) (exceptMLRA 1, 2, 4A, and 4B)Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)		 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) 	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimen	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimer Drift Der	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimer Drift Der Algal Ma	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) int Deposits (B2) posits (B3) at or Crust (B4)		 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roman Presence of Reduced Iron (C4) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturati Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roman Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Canada and Canada and Cana	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	f one requi	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roman Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Called Stunted or Stressed Plants (D1) (LRR 1) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	f one requi	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rown Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Called Stunted or Stressed Plants (D1) (LRR 10) (B7) 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) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	f one requi	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rown Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Called Stunted or Stressed Plants (D1) (LRR 10) (B7) 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) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati X Sparsely	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Concavations:	f one requi	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roman Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Campute of Stunted or Stressed Plants (D1) (LRR 10) (B7) 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) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati X Sparsely Field Obser	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concavations: er Present?	al Imagery ave Surface Yes X	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rown Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Called Stunted or Stressed Plants (D1) (LRR 10) (B7) 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) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimel Drift Dep Algal Ma Iron Dep Surface Inundati X Sparsely Field Obser	drology Indicator cators (minimum of Water (A1) after Table (A2) on (A3) arks (B1) and Deposits (B2) posits (B3) aft or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerically Vegetated Concavations: er Present?	al Imagery ave Surface Yes X Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR of Explain in Remarks) (B7) Other (Explain in Remarks) No Depth (inches): 000000000000000000000000000000000000	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimen Iron Dep Algal Ma Iron Dep Iron Dep Surface Inundati X Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) on the Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeric y Vegetated Concavations: er Present? Present? resent? pillary fringe)	al Imagery ave Surface Yes X Yes X Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rowald Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Stunted or Stressed Plants (D1) (LRR 10) (B7) Other (Explain in Remarks) (B8) No Depth (inches): 00 No Depth (inches): 00 We	Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimen Iron Dep Algal Ma Iron Dep Iron Dep Surface Inundati X Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) on the Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeric y Vegetated Concavations: er Present? Present? resent? pillary fringe)	al Imagery ave Surface Yes X Yes X Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR of Explain in Remarks) (B7) Other (Explain in Remarks) No Depth (inches): 1" No Depth (inches): 000	Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water N Sedimer Drift Der Algal Ma Iron Der Surface Inundati X Sparsely Field Obser Surface Wat Water Table Saturation P (includes car Describe Re	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) on the Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeric y Vegetated Concavations: er Present? Present? resent? pillary fringe)	al Imagery ave Surface Yes X Yes X Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rowald Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Stunted or Stressed Plants (D1) (LRR 10) (B7) Other (Explain in Remarks) (B8) No Depth (inches): 00 No Depth (inches): 00 We	Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water M Sedimen Iron Dep Algal Ma Iron Dep Iron Dep Surface Inundati X Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) on the Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeric y Vegetated Concavations: er Present? Present? resent? pillary fringe)	al Imagery ave Surface Yes X Yes X Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rowald Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Stunted or Stressed Plants (D1) (LRR 10) (B7) Other (Explain in Remarks) (B8) No Depth (inches): 00 No Depth (inches): 00 We	Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water N Sedimer Drift Der Algal Ma Iron Der Surface Inundati X Sparsely Field Obser Surface Wat Water Table Saturation P (includes car Describe Re	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) on the Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeric y Vegetated Concavations: er Present? Present? resent? pillary fringe)	al Imagery ave Surface Yes X Yes X Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rowald Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Stunted or Stressed Plants (D1) (LRR 10) (B7) Other (Explain in Remarks) (B8) No Depth (inches): 00 No Depth (inches): 00 We	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLO Wetland Hy Primary India X Surface X High Wa X Saturatia Water N Sedimer Drift Der Algal Ma Iron Der Surface Inundati X Sparsely Field Obser Surface Wat Water Table Saturation P (includes car Describe Re	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B1) on the Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeric y Vegetated Concavations: er Present? Present? resent? pillary fringe)	al Imagery ave Surface Yes X Yes X Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rowald Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Stunted or Stressed Plants (D1) (LRR 10) (B7) Other (Explain in Remarks) (B8) No Depth (inches): 00 No Depth (inches): 00 We	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Nisqually State Park		City/County	y: Pierce		Sampling Date:	12/21/2023
Applicant/Owner: WA State Parks				State: WA		
		Section, Township, Range: None				
				convex, none): Convex	Slo	pe (%): 2
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical fo						
Are Vegetation N , Soil N , or Hydrology N	significantly	disturbed?	Are '	"Normal Circumstances" p	oresent? Yes X	No
Are Vegetation N , Soil N , or Hydrology N				eeded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site m			ng point l	ocations, transects	, important fe	atures, etc.
Hydrophytic Vegetation Present? Yes			<u> </u>	·	<u>· </u>	ŕ
Hydric Soil Present? Yes	No X	I	he Sample		v	
Wetland Hydrology Present? Yes		with	hin a Wetla	nd? Yes	No X	-
Remarks:						
VEGETATION – Use scientific names of p						
Tree Stratum (Plot size: 30'	Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test work		
1. PSME Douglas Fir	75	Υ Υ	FACU	Number of Dominant S That Are OBL, FACW,		(A)
2. ACMA3 Big Leaf Maple	10	N	FACU	Total Number of Domin		
3				Species Across All Stra		(B)
4				Percent of Dominant S	pecies	
Sapling/Shrub Stratum (Plot size: 15'	85	_ = Total Co	over	That Are OBL, FACW,		(A/B)
1. GASH Salal	20	Υ	FACU	Prevalence Index wor	ksheet:	
2. ACCI Vine Maple	50	Y	FAC	Total % Cover of:		
3.				OBL species		
4.				FACW species		
5				FAC species		
Herb Stratum (Plot size: 5')	70	_ = Total Co	over	UPL species		
POMU Sword Fern	5	Υ	FACU	Column Totals:		
2.						
3.				Hydrophytic Vegetation	c = B/A = on Indicators:	
4.				1 - Rapid Test for I		ation
5				2 - Dominance Tes		
6				3 - Prevalence Inde	ex is ≤3.0 ¹	
7				4 - Morphological /	Adaptations ¹ (Prov	ide supporting
8				data in Remark 5 - Wetland Non-V	s or on a separate	sheet)
9				5 - Wetland Non-V		(Evolain)
10				¹ Indicators of hydric so		
1 1		 _= Total Co	- ———	be present, unless dist		
Woody Vine Stratum (Plot size:)	-	10(a) 00	, v C1			
1				Hydrophytic		
2				Vegetation Present? Ye	sNoX	
% Bare Ground in Herb Stratum 50	0	_= Total Co	ver	1.555		
Remarks:						
All bare ground covered by moss.						

SOIL Sampling Point: W24-SP2

	ription: (Descri		pth need				or confirm	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)		Cold	Redo or (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0 - 16	7.5 YR 3/1	100				. , , , ,		Si, Lo	Small Gravel, Pea Size
						-			,
	-								
	oncentration, D=D						d Sand Gr		cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	olicable to a	II LRRs,	unless othe	rwise note	ed.)		Indicato	ors for Problematic Hydric Soils³:
Histosol				ndy Redox (m Muck (A10)
	pipedon (A2)			ipped Matrix					Parent Material (TF2)
· · · · · · · · · · · · · · · · · · ·	istic (A3)			amy Mucky N	-		: MLRA 1)		y Shallow Dark Surface (TF12)
	en Sulfide (A4) d Below Dark Sur	face (A11)		amy Gleyed pleted Matrix)		Oth	er (Explain in Remarks)
	ark Surface (A12)			dox Dark Su				³ Indicate	ors of hydrophytic vegetation and
	/lucky Mineral (S1			pleted Dark		7)			and hydrology must be present,
	Gleyed Matrix (S4)			dox Depress		,			ss disturbed or problematic.
Restrictive	Layer (if present):							·
Туре:									
Depth (in	ches):							Hydric Soil	Present? Yes No X
Remarks:								1	
HYDROLO	GY drology Indicato	re'							
-	cators (minimum o		ad: chack	all that appl	v)			Saco	ndary Indicators (2 or more required)
	Water (A1)	one requir	eu, check	_ Water-Sta		os (B0) (a	vcont		Vater-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)		_	_	1, 2, 4A, a		xcept	v	4A, and 4B)
Saturati				_ Salt Crust		iiiu 4 <i>D)</i>		Г	Orainage Patterns (B10)
	larks (B1)			_ Aquatic In	, ,	s (B13)			Ory-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen					Saturation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized F		` ′	Livina Roo		Geomorphic Position (D2)
	at or Crust (B4)		_	Presence		_	_		Shallow Aquitard (D3)
Iron Dep	` '			Recent Iro					AC-Neutral Test (D5)
Surface	Soil Cracks (B6)			_ Stunted or	Stressed	Plants (D	1) (LRR A)) <u> </u>	Raised Ant Mounds (D6) (LRR A)
Inundati	on Visib l e on Aeri	ial Imagery (B7)	Other (Ex	olain in Re	marks)		F	rost-Heave Hummocks (D7)
Sparsely	Vegetated Conc	ave Surface	(B8)						
Field Obser	vations:								
Surface Wat	er Present?	Yes	No X	Depth (in	ches):		_		
Water Table	Present?	Yes	No X	Depth (in	ches):		_		
Saturation P	resent?	Yes	No X	Depth (in	ches):		Wetla	and Hydrolog	y Present? Yes No X
	oillary fringe)								
Describe Re	corded Data (stre	am gauge, r	nonitoring	weii, aerial	pnotos, pre	evious ins	pections),	ıt available:	
Remarks:									

Project/Site: Nisqually State Park		City/Count	y: Pierce		Sampling Date: 12/	/21/2023
Applicant/Owner: WA State Parks				State: WA		
5 1 411				nge:		
Landform (hillslope, terrace, etc.): Depression					Slope	(%): <u></u> 0
Subregion (LRR):						
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for thi					·	
Are Vegetation N, Soil N, or Hydrology N	-			Normal Circumstances" p		_ No
Are Vegetation N, Soil N, or Hydrology N				eded, explain any answe		
SUMMARY OF FINDINGS – Attach site map						ures, etc.
Hydrophytic Vegetation Present? Yes X N						
Hydric Soil Present? Yes X Yes X			he Sampled hin a Wetlar		No	
Wetland Hydrology Present? Yes X N	10	****	imi a vvetai	100		
Remarks:						
VEGETATION – Use scientific names of plar	nts					
720217(TIGHT GGG GGIGHAING HAINGG GI PIAI	Absolute	Dominan	t Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30'	% Cover			Number of Dominant S	necies	
1				That Are OBL, FACW,	or FAC: 3	(A)
2				Total Number of Domin		
3				Species Across All Stra	ıta: <u>3</u>	(B)
4				Percent of Dominant Sp		
Sapling/Shrub Stratum (Plot size: 15'		_ = Total C	over	That Are OBL, FACW,	or FAC: 1	(A/B)
1. RUSP Salmonberry	35	Υ	FAC	Prevalence Index wor		
2. RUAR Himalayan Blackberry	15	Y	FAC	Total % Cover of:		<u>y:</u>
3. GASH Salal	5	N	FACU	· · · · · · · · · · · · · · · · · · ·	x 1 = 70	
4	_				x 2 = x 3 =165	
5					$\times 4 = \frac{20}{}$	
	55	_ = Total C	over			
Herb Stratum (Plot size: 5') 1. CAOB3 Slough Sedge	70	Υ	OBL	Column Totals: 130		(B)
2. TOME Piggyback Plant	- 5	N	FAC			(-)
3	_			Prevalence Index Hydrophytic Vegetation		
4					on indicators: Hydrophytic Vegetatio	n n
5.				2 - Dominance Tes		ווע
6.				3 - Prevalence Inde		
7.					Adaptations ¹ (Provide	supporting
8				data in Remarks	s or on a separate sh	
9				5 - Wetland Non-Va		
10				Problematic Hydro		-
11				¹ Indicators of hydric soi be present, unless distu		
Mandy Vine Stratum (Diet eine -	75	_= Total Co	over	be present, unless diste	Tibed of problematic.	
Woody Vine Stratum (Plot size:)						
1. 2.				Hydrophytic Vegetation		
	^	= Total Co	over	Present? Yes	s <u> X</u> No	_
% Bare Ground in Herb Stratum <u>25</u>		_ 10.01.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Remarks:						
Moss where ground is bare.						

SOIL Sampling Point: W25-SP1

Depth	Matri	ix	oth needed to document the indicator or o		
(inches) 0 - 16	Color (moist		Color (moist) % Type ¹ I	_oc² <u>Texture</u>	Remarks
0 - 16	2.5 Y 3/1	100		Si, Lo	
	-				
-					
	·				
			=Reduced Matrix, CS=Covered or Coated S		: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Ap	plicable to all	LRRs, unless otherwise noted.)	Indicators fo	r Problematic Hydric Soils³:
Histoso	• •		Sandy Redox (S5)	2 cm Mud	* *
	pipedon (A2)		Stripped Matrix (S6)		nt Material (TF2)
	listic (A3)		Learny Clayed Metrix (F2)		llow Dark Surface (TF12)
	en Su l fide (A4) ed Be l ow Dark Su	rface (A11)	Loamy Gleyed Matrix (F2) X Depleted Matrix (F3)	Other (Ex	plain in Remarks)
	ark Surface (A12	, ,	Redox Dark Surface (F6)	³ Indicators of	hydrophytic vegetation and
	Mucky Mineral (S		Depleted Dark Surface (F7)		drology must be present,
	Gleyed Matrix (S4		Redox Depressions (F8)	•	urbed or problematic.
	Layer (if present				
Туре:					
Depth (in	nches):			Hydric Soil Pres	ent? Yes X No
HYDROLO Wetland Hy	OGY vdrology Indicate	ors:			
Primary Indi	icators (minimum	of one require	ed; check all that apply)	<u>Secondary</u>	Indicators (2 or more required)
Surface	Water (A1)		Water-Stained Leaves (B9) (exce	ept Water-	Stained Leaves (B9) (MLRA 1, 2,
	ater Tab l e (A2)		MLRA 1, 2, 4A, and 4B)	4A,	and 4B)
X Saturat			Salt Crust (B11)		ge Patterns (B10)
	Marks (B1)		Aquatic Invertebrates (B13)	·	ason Water Table (C2)
	ent Deposits (B2)		Hydrogen Su l fide Odor (C1)		tion Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized Rhizospheres along Liv		
	at or Crust (B4)		Presence of Reduced Iron (C4)		w Aquitard (D3)
Iron De			Recent Iron Reduction in Tilled S		eutral Test (D5)
	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (Ant Mounds (D6) (LRR A)
	ion Visible on Aer			Frost-F	leave Hummocks (D7)
Field Obse	ly Vegetated Con-	cave Surface	(00)	T	
		V	No. X		
	ter Present?	Yes	No X Depth (inches):		
Water Table			No Depth (inches): 6"		X
Saturation F	resent? pillary fringe)	Yes <u>^</u>	No Depth (inches): To surface	Wetland Hydrology Pre	sent? Yes <u>^</u> No
		eam gauge, m	onitoring well, aerial photos, previous inspec	ctions), if available:	
Remarks:					

Project/Site: Nisqually State Park	: Pierce	Sampling Date: 12/21/2023					
Applicant/Owner: WA State Parks					State: WA		
Investigator(s): Dominguez, Allen							
Landform (hillslope, terrace, etc.): Dep					convex, none): Concave	Slope (%	_{%):} < 1%
Subregion (LRR):		Lat:	Long: Datum:				
Soil Map Unit Name:							
Are climatic / hydrologic conditions on the							
Are Vegetation N , Soil N , or		-			"Normal Circumstances" p		No
Are Vegetation N, Soil N, or					eeded, explain any answer		
SUMMARY OF FINDINGS – A						·	res, etc.
Hydrophytic Vegetation Present?	Yes						
Hydric Soil Present?	Yes		l l	ne Sampled		No <u>X</u>	
Wetland Hydrology Present?	Yes	No <u>X</u>	Witi	in a Wetlar	iur res	No <u></u>	
Remarks:							
VEGETATION – Use scientific	names of nla	nte					
VEGETATION — Use scientific	names of pie	Absolute	Dominant	Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 30')		Species?	Status	Number of Dominant Sp		
1. PSME Douglas Fir		25	<u>Y</u>	FACU	That Are OBL, FACW, o	^	(A)
2. POBAZ Cottonwood		15	<u>N</u>	FAC	Total Number of Domina	ant	
3. ACMA3 Big Leaf Maple		10	N	FACU	Species Across All Strat	:a: <u>4</u>	(B)
4		— 85			Percent of Dominant Sp		
Sapling/Shrub Stratum (Plot size: 15	,')	00	_ = Total Co	over	That Are OBL, FACW, o		(A/B)
1. GASH Salal		50	<u>Y</u>	FACU	Prevalence Index work		
2. RUSP Salmon Berry		20	<u>Y</u>	FAC	Total % Cover of:		
3. ALRU Red Alder		_ 5	N	FAC	OBL species		
4. ACCI Vine Maple		5	<u>N</u>	<u>FAC</u>	FAC species		
5					FACU species		
Herb Stratum (Plot size: 5')	00	_ = Total Co	over	UPL species	x 5 =	
1. POMU Sword Fern		20	<u>Y</u>	FACU	Column Totals:	(A)	(B)
2. RUUR Trailing Blackberry		2	N	FACU		= B/A =	
3					Hydrophytic Vegetatio		
4					1 - Rapid Test for H	ydrophytic Vegetation	ı
5					2 - Dominance Test	: is >50%	
6					3 - Prevalence Inde		
7					4 - Morphological A	daptations¹ (Provide s or on a separate shee	
8					5 - Wetland Non-Va	•	<i>J</i> ()
9 10					Problematic Hydrop		o l ain)
11.					Indicators of hydric soil		-
		_	= Total Co	ver	be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size: -)		-				
1					Hydrophytic		
2					Vegetation Present? Yes	s No X	
% Bare Ground in Herb Stratum 15		-	= Total Co	ver			
Remarks:					1		
All bare ground covered b	y moss.						

SOIL Sampling Point: W25-SP2

Profile Desc	ription: (Descril	e to the d	epth neede	d to docun	nent the i	ndicator	or confirm	n the absence of indicators.)	
Depth	Matrix		_		x Features	<u> </u>			
(inches)	Color (moist)		<u>Color</u>	(moist)	<u></u> %	Type ¹	Loc ²	Texture Remarks	-
<u>0 - 16</u>	7.5 YR 4/3	80						Si, Lo	
	7.5 YR 3/1	20						Si, Lo	
<u> </u>								· <u></u>	
			_						
					·				
					-				
								· ·	
	oncentration, D=D						d Sand Gr		
Hydric Soil I	ndicators: (App	licable to a	all LRRs, ur	nless other	wise note	ed.)		Indicators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Sand	dy Redox (S	S5)			2 cm Muck (A10)	
Histic Ep	pipedon (A2)		Strip	ped Matrix	(S6)			Red Parent Material (TF2)	
Black Hi	stic (A3)		Loar	ny Mucky N	lineral (F1) (except	MLRA 1)		
	n Su l fide (A4)			ny Gleyed I)		Other (Explain in Remarks)	
	d Below Dark Surf	ace (A11)		leted Matrix				•	
	ark Surface (A12)			ox Dark Sur				³ Indicators of hydrophytic vegetation and	
	lucky Mineral (S1			leted Dark S		7)		wetland hydrology must be present,	
	leyed Matrix (S4)		Red	ox Depress	ions (F8)			unless disturbed or problematic.	
Restrictive I	_ayer (if present)	:							
Type:								_	
Depth (inc	ches):							Hydric Soil Present? Yes No X	
Remarks:									
10/00010									
HYDROLO									
Wetland Hyd	drology Indicator	s:							
Primary Indic	ators (minimum c	f one requi	red; check a	all that apply	/)			Secondary Indicators (2 or more required)	
Surface	Water (A1)			Water-Stai	ned Leave	es (B9) (e :	xcept	Water-Stained Leaves (B9) (MLRA 1, 2,	
High Wa	ter Table (A2)			MLRA 1	1, 2, 4A, a	nd 4B)		4A, and 4B)	
Saturatio	on (A3)			Salt Crust	(B11)			Drainage Patterns (B10)	
Water M	arks (B1)			Aquatic Inv	ertebrate:	s (B13)		Dry-Season Water Table (C2)	
Sedimer	nt Deposits (B2)			Hydrogen :				Saturation Visible on Aerial Imagery (C9)	
Drift Dep	osits (B3)			Oxidized R	hizosphei	es along	Living Roo	ots (C3) Geomorphic Position (D2)	
	it or Crust (B4)			Presence of		_	_	Shallow Aquitard (D3)	
	osits (B5)		·	Recent Iron					
	Soil Cracks (B6)			Stunted or					
	on Visib l e on Aeri	al Imagery		Other (Exp			-, (Frost-Heave Hummocks (D7)	
_ 	Vegetated Conc					,			
Field Obser									_
Surface Water		Yes	No X	Denth (inc	hes).				
Water Table			No X				I		
								land Hydrology Present? Yes No X	
Saturation Pi (includes cap		res	_ No X	_ Deptn (inc	nes):		_ wetta	land Hydrology Present? Yes No X	
	corded Data (strea	am gauge, i	monitoring v	well, aeria l p	hotos, pre	evious ins	pections),	, if available:	
Remarks:									

Project/Site: Nisqually State Park		City/County	: Pierce	Sampling Date: 12/27/2023
Applicant/Owner: WA State Parks	-			State: WA Sampling Point: W26-SP1
Di.				inge:
- · · · · · · · · · · · · · · · · · · ·				convex, none): none Slope (%): 0
Subregion (LRR):				
Soil Map Unit Name:				
Are climatic / hydrologic conditions on the site typical for th				· · · · · · · · · · · · · · · · · · ·
Are Vegetation N, Soil N, or Hydrology N	_			"Normal Circumstances" present? Yes X No
Are Vegetation N, Soil N, or Hydrology N				eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map			•	
Hydrophytic Vegetation Present? Yes X				
	No		ne Sampled nin a Wetlar	V/
Wetland Hydrology Present? Yes X	No	With		103 100
Remarks:				
VEGETATION – Use scientific names of plan				
Tree Stratum (Plot size: 30'	Absolute % Cover	Dominant Species?	t Indicator Status	Dominance Test worksheet:
1. ACMA3 Big Leaf Maple	25	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2. PSME Douglas Fir	5	N	FACU	Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15'	30	_ = Total Co	over	That Are OBL, FACW, or FAC:6 (A/B)
1. ACCI Vine Maple	10	Υ	FAC	Prevalence Index worksheet:
2. ALRU Red Alder	10	Y	FAC	Total % Cover of: Multiply by:
3. GASH Salal	5	Υ	FACU	OBL species 90 x 1 = 90
4				FACW species x 2 = FAC species x 3 = 60
5				FACU species 35
Herb Stratum (Plot size: 5'	25	_ = Total Co	over	UPL species x 5 =
1. CAOB3 Slough Sedge	90	Υ	OBL	Column Totals: 145 (A) 290 (B)
2.				Prevalence Index = B/A = 2
3.				Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				② 3 - Prevalence Index is ≤3.0 ¹
7				4 - Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹
9				5 - wetland Non-vascular Plants Problematic Hydrophytic Vegetation ¹ (Explain)
10				Indicators of hydric soil and wetland hydrology must
11		= Total Co	vor	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		10tal C0	vei	
1				Hydrophytic
2				Vegetation Present? Yes X No
% Bare Ground in Herb Stratum 10	0	= Total Co	ver	16510
Remarks:				1
Moss where ground is bare.				

SOIL Sampling Point: W26-SP1

		e to the dep	h needed to document the indicato	or or confirm the	e absence o	f indicators.)	
Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist) % Type ¹	Loc ²	Texture	Remarks	
0 - 16	GLEY1 5/10Y	100			, Lo	Homano	
					<u> </u>		
				<u> </u>			
							_
							-
1							
			Reduced Matrix, CS=Covered or Coa LRRs, unless otherwise noted.)	ited Sand Grains		tion: PL=Pore Lining, M=Mar s for Problematic Hydric So	
		icable to all	•			•	, iii
Histosol	oipedon (A2)		Sandy Redox (S5) Stripped Matrix (S6)			Muck (A10) Parent Material (TF2)	
	istic (A3)		Stripped Matrix (36) Loamy Mucky Mineral (F1) (exce	nt MI RA 1)		Shallow Dark Surface (TF12)	
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	pt in Eloc 1)		(Explain in Remarks)	
	d Below Dark Surfa	ace (A11)	Depleted Matrix (F3)			,	
Thick Da	ark Surface (A12)		Redox Dark Surface (F6)		³ Indicators	s of hydrophytic vegetation ar	nd
	lucky Mineral (S1)		Depleted Dark Surface (F7)		wetlan	d hydrology must be present,	
	Bleyed Matrix (S4)		Redox Depressions (F8)		unless	disturbed or problematic.	
Restrictive I	Layer (if present):						
Туре:						V	
Depth (in	ches):		<u></u>	Н	lydric Soil F	Present? Yes X No	·—
Remarks:							
HYDROLO	GY						
Wetland Hy	drology Indicator	s:					
		one required	; check all that apply)		Second	lary Indicators (2 or more req	<u>uired)</u>
l 	Water (A1)		Water-Stained Leaves (B9)		Wa	iter-Stained Leaves (B9) (ML	RA 1, 2,
	ater Table (A2)		MLRA 1, 2, 4A, and 4B)			4A, and 4B)	
X Saturation	, ,		Salt Crust (B11)		_	ainage Patterns (B10)	
	larks (B1)		Aquatic Invertebrates (B13)			/-Season Water Table (C2)	
	nt Deposits (B2)		Hydrogen Sulfide Odor (C1)			turation Visible on Aerial Imaç	gery (C9)
l —— ·	posits (B3)		Oxidized Rhizospheres alon		. —		
	at or Crust (B4)		Presence of Reduced Iron (allow Aquitard (D3)	
Iron Dep			Recent Iron Reduction in Till			C-Neutral Test (D5)	
	Soil Cracks (B6)	(5-	Stunted or Stressed Plants ((D1) (LRR A)		ised Ant Mounds (D6) (LRR A	A)
	on Visib l e on Aeria				Fro	st-Heave Hummocks (D7)	
	Vegetated Conca	ve Surrace (E	38)				
Field Obser		V 1	La X Danth (inches)				
Surface Wat		YesI	No X Depth (inches):				
Water Table			No Depth (inches): 3"	_		X	
Saturation P (includes car		Yes <u>^</u> I	No Depth (inches): To surface	Wetland	Hydrology	Present? Yes X No	o
		m gauge, mo	nitoring well, aerial photos, previous ir	nspections), if av	/ailable:		
Remarks:							

Project/Site: Nisqually State Park			City/Co	ounty: _	Pierce		Sampling Date: 12/27/2023		
Applicant/Owner: WA State Parks						State: WA	Sampling Point: W26-SP2		
Investigator(s): Dominguez			Section, Township, Range: None						
Landform (hillslope, terrace, etc.): H								Slope (%	6): <u>5</u> %
Subregion (LRR):									
Soil Map Unit Name:									
Are climatic / hydrologic conditions o									
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,		-				"Normal Circumstances" p		vas X	No
Are Vegetation N, Soil N,						eeded, explain any answe			
SUMMARY OF FINDINGS –									res. etc.
Hydrophytic Vegetation Present?	Yes			9	роши		,,		
Hydric Soil Present?		No X		Is the	Sampled			.,	
Wetland Hydrology Present?		No X		withir	a Wetlar	nd? Yes	No_	<u>x</u>	
Remarks:									
VEGETATION – Use scienti	fic names of pl	ants.							
Tree Stratum (Plot size: 30'	\	Absolute <u>% Cover</u>			ndicator	Dominance Test work			
1. PSME Douglas Fir)	40	Y		FACU	Number of Dominant S That Are OBL, FACW,		1	(A)
2. ALRU Red Alder		20	Y		FAC		•		_ (/-)
3. ACMA3 Big Leaf Maple		15	N		FACU	Total Number of Domin Species Across All Stra		4	(B)
4. THPL Western Red Cedar		5	N		FAC				_ (5)
	4.51	80	 _ = Tot	tal Cove	======================================	Percent of Dominant Sp That Are OBL, FACW,		.25	(A/B)
Sapling/Shrub Stratum (Plot size:	15'	0.5			- 4 - 0 1	Prevalence Index wor	·-		_ (
				<u> </u>		Total % Cover of:		Multiply by:	
2						OBL species			
3						FACW species	x 2	? =	
4							x 3		
5		35	= Tot	tal Cove		FACU species 100	× 4	400	
Herb Stratum (Plot size: 5')		100	iai oovi	- 1	UPL species			
1. POMU Sword Fern		25	<u>Y</u>	<u> </u>	FACU_	Column Totals: 125	(A)	475	(B)
2. RUUR Trailing Blackberry		10	<u>N</u>	<u> </u>	FACU	Prevalence Index	= B/A =	3.8	
3						Hydrophytic Vegetation	n Indicat	ors:	
4						1 - Rapid Test for H	lydrophyti	c Vegetation	
5						2 - Dominance Tes	t is >50%		
6						3 - Prevalence Inde			
7						4 - Morphological A data in Remarks			
8						5 - Wetland Non-Va		-	;t)
9						Problematic Hydro			o l ain)
10 11						¹ Indicators of hydric soi	-		
		0.5	= Tota		r	be present, unless distu			,
Woody Vine Stratum (Plot size: -)			u. 0010	•				
1						Hydrophytic			
2						Vegetation Present? Yes	s	No X	
% Bare Ground in Herb Stratum 15	5	0	_= Tota	al Cove	r	16			
Remarks:									
bare ground covered by	moss								
Jan 2 g. Jan a Joven July									

SOIL Sampling Point: W26-SP2

Profile Desc	ription: (Describe	e to the de	pth neede	d to docun	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix				x Features		. 2		_	
(inches)	Color (moist)		Color	(moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remar	ks
<u>0 - 16</u>	7.5 YR 4/1	_ <u>80</u>						Si, Lo		
					· ——		-			
	-									
										_
					· ——					
¹ Type: C=Co	oncentration, D=De	pletion, RM	1=Reduced	d Matrix, CS	S=Covered	or Coate	ed Sand Gra	ains. ² Lo	cation: PL=Pore Lining	g, M=Matrix.
Hydric Soil I	ndicators: (Appli	cable to al	II LRRs, ur	nless other	wise note	ed.)		Indicato	ors for Problematic H	ydric Soils³:
Histosol	(A1)		Sand	dy Redox (S	S5)			2 cr	n Muck (A10)	
Histic Ep	pipedon (A2)		Strip	ped Matrix	(S6)			Rec	d Parent Material (TF2))
Black Hi	stic (A3)			ny Mucky N			MLRA 1)		y Shallow Dark Surfac	
	n Su l fide (A4)			ny G l eyed I)		Oth	er (Exp l ain in Remarks	s)
	l Below Dark Surfa	ce (A11)		leted Matrix				2		
	rk Surface (A12)		_	ox Dark Su	. ,				ors of hydrophytic vege	
	lucky Mineral (S1)			leted Dark \$		7)			and hydrology must be	•
	leyed Matrix (S4)		Red	ox Depress	ions (F8)			unles	ss disturbed or problen	natic.
	_ayer (if present):									
Type:										Y
Depth (inc	ches):							Hydric Soil	Present? Yes	No X
Remarks:										
HYDROLO	GY									
Wetland Hyd	drology Indicators	s:								
Primary Indic	ators (minimum of	one require	ed; check a	all that appl	y)			Seco	ndary Indicators (2 or i	more required)
Surface	Water (A1)			Water-Sta	ined Leave	es (B9) (e	xcept	v	Vater-Stained Leaves	(B9) (MLRA 1, 2,
High Wa	ter Tab l e (A2)			MLRA	1, 2, 4A, a	nd 4B)			4A, and 4B)	
Saturation	on (A3)			Salt Crust	(B11)			0	Orainage Patterns (B10))
Water M	arks (B1)			Aquatic Inv	vertebrates	s (B13)		0	Dry-Season Water Tab	le (C2)
	it Deposits (B2)			Hydrogen					Saturation Visible on A	
Drift Dep	osits (B3)			Oxidized F	Rhizospher	res along	Living Roo	ts (C3) G	Seomorphic Position (D	02)
	t or Crust (B4)			Presence	-	_	_	· · · —	Shallow Aquitard (D3)	,
Iron Dep	osits (B5)			Recent Iro					AC-Neutral Test (D5)	
	Soil Cracks (B6)			Stunted or				· —	Raised Ant Mounds (De	6) (LRR A)
	on Visib l e on Aeria	I Imagery (E		Other (Exp		•	, , ,		rost-Heave Hummock	s (D7)
	Vegetated Conca			` '		,				,
Field Obser										
Surface Water		Ves	No X	Depth (inc	ches).					
Water Table				Depth (inc						
									D (0)/	X
Saturation Proceed (includes cape	esent?	Yes	No <u>^</u>	Depth (inc	cnes):		_ wetia	ana Hyarolog	y Present? Yes	No <u>^</u>
	corded Data (strea	m gauge, m	nonitoring v	well, aerial r	ohotos, pre	evious ins	pections), i	if available:		
	,		· ·		•		• /-			
Remarks:										
rtomanto.										

Project/Site: Nisqually State Park	(City/County	Pierce		Sampling Date: <u>12/27/2023</u>	
Applicant/Owner: WA State Parks					Sampling Point: W27-SP1	
Investigator(s): Dominguez	;	Section, To	wnship, Rai	nge:		
Landform (hillslope, terrace, etc.): Bottomland		Local relief	(concave, o	convex, none): Concave	Slope (%): 0	
Subregion (LRR):	Lat:			Long:	Datum:	
Soil Map Unit Name:				NWI classifica	ation:	
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation N , Soil N , or Hydrology N signals	gnificantly o	disturbed?	Are "	Normal Circumstances" pr	resent? Yes X No	
Are Vegetation N , Soil N , or Hydrology N na	aturally prol	olematic?	(If ne	eded, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	a point le	ocations, transects.	important features, etc	C.
Hydrophytic Vegetation Present? Yes X No			9			_
Hydric Soil Present? Yes X No		ls th	e Sampled			
Wetland Hydrology Present? Yes X No		with	in a Wetlan	ıd? Yes X	No	
Remarks:		•				
VEGETATION – Use scientific names of plant				T		
201	Absolute % Cover	Dominant Species?		Dominance Test works		
1. POBA2 Black Cottonwood	30	Y	FAC	Number of Dominant Sp That Are OBL, FACW, o	^	
2				Total Number of Domina	ant	
3				Species Across All Strat	•	
4				Percent of Dominant Sp	ecies	
Sapling/Shrub Stratum (Plot size: 15')	30	= Total Co	ver	That Are OBL, FACW, o		,)
1 ACCI Vine Maple	5	Υ	FAC	Prevalence Index work		
2.				Total % Cover of:		
3.					x 1 = 60	
4					x 2 = x 3 =105	
5				FACU species		
Herb Stratum (Plot size: 5'	5	= Total Co	ver		x 5 =	
1 CAOB3 Slough Sedge	60	Υ	OBL	Column Totals: 95		
2.				Prevalence Index	- ви - 1.73	
3.				Hydrophytic Vegetatio		_
4					ydrophytic Vegetation	
5				2 - Dominance Test	is >50%	
6				3 - Prevalence Inde	x is ≤3.0 ¹	
7				4 - Morphological A	daptations ¹ (Provide supporting	g
8				5 - Wetland Non-Va	or on a separate sheet)	
9					hytic Vegetation ¹ (Explain)	
10					and wetland hydrology must	
11	75	= Total Cov	er	be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size:)		70101 001				
1				Hydrophytic		
2				Vegetation Present? Yes	s X No	
% Bare Ground in Herb Stratum 40	0	= Total Cov	er			
Remarks:				L	_	

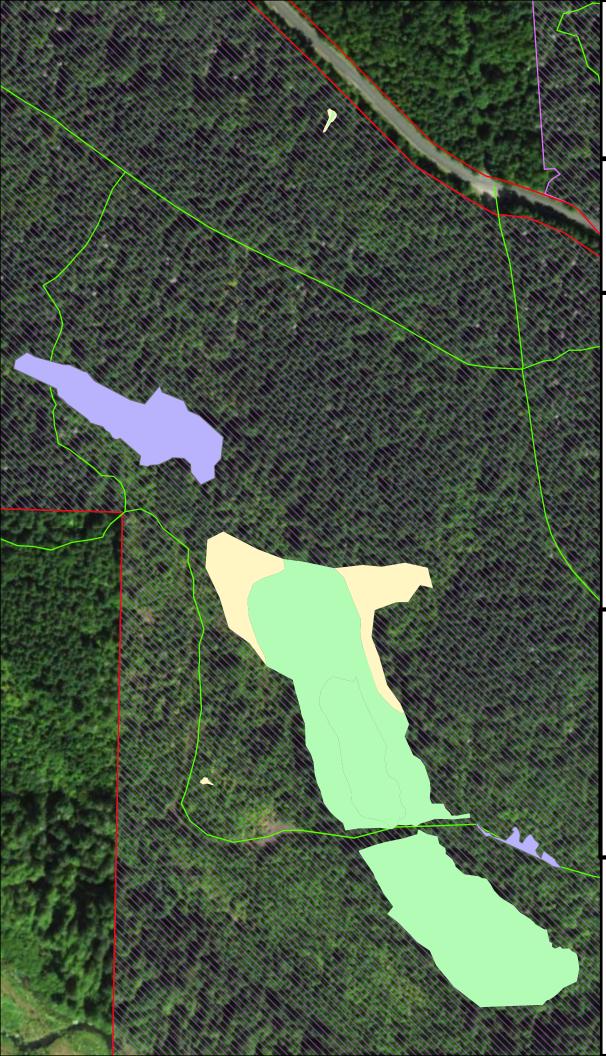
SOIL Sampling Point: W27-SP1

Depth	<u>Matrix</u>				x Feature			_			_		
(inches)	Color (moist)	<u>%</u>	<u>Color</u>	(moist)	%	Type ¹	Loc ²		<u>e</u>		Remarks		
0 - 10	7.5 YR 3/1	_ 100_						_ <u>Lo</u>					
10-16	7.5YR 5/4	90	10YR 5	5/6	10	<u>Р</u>	_ <u>M</u>						
						_	_						
						_							
			<u> </u>			_	_	_					
		_						_					
								_					
						_							
	oncentration, D=D						ted Sand				ore Lining,		
-	Indicators: (App	licable to a				ed.)					ematic Hyd	lric Soi l s'	:
Histosol				dy Redox (luck (A10)			
	pipedon (A2) istic (A3)			ped Matrix ny Mucky N	` '	1) (ovco	nt MI DA			arent Mate	rial (TF2) k Surface (TE12)	
	en Sulfide (A4)			ny Gleyed I			pt wilks			Explain in		11 12)	
	d Below Dark Surf	ace (A11)		leted Matrix		-/			Ounor (Explain iii	r torriarito,		
	ark Surface (A12)	, ,		ox Dark Su)		³ Ind	icators	of hydroph	ıytic vegeta	tion and	
	Mucky Mineral (S1)			leted Dark		- 7)					must be pr		
	Gleyed Matrix (S4)		Red	ox Depress	ions (F8)			u	nless c	listurbed o	r problema	tic.	
	Layer (if present)	:											
Type:										_	Y		
Depth (in Remarks:	ches):							Hydric	Soil Pr	esent?	Yes X	_ No _	
	OGY drology Indicator	s:											
•			red; check a	all that appl	y)			<u>s</u>	econda	ary Indicato	ors (2 or mo	ore require	
Wetland Hy Primary India	drology Indicator			all that appl Water-Sta		ves (B9) ((except	<u>s</u>		•	ors (2 or mc Leaves (B		
Wetland Hy Primary India Surface High Wa	drology Indicator			Water-Sta			(except	<u>S</u>	_ Wat	•	Leaves (B		
Wetland Hy Primary India Surface	drology Indicator cators (minimum o Water (A1) ater Table (A2)			Water-Sta	ined Leav 1, 2, 4A , a		(except	<u>S</u>	_ Wat	er-Stained	Leaves (B		
Wetland Hy Primary India Surface High Wa Saturati Water M	cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1)		☑ 	Water-Sta MLRA Salt Crust Aquatic In	ined Leav 1, 2, 4A, a (B11) vertebrate	and 4B) es (B13)	(except	_	Wate 4 Drai Dry-	er-Stained A, and 4B nage Patte Season W	Leaves (Beerns (Beerns (B10)) Earns (B10) Earns Table	9) (MLRA (C2)	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen	cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		☑ 	Water-Sta MLRA Salt Crust Aquatic In	ined Leav 1, 2, 4A, a (B11) vertebrate Su l fide O	and 4B) es (B13) dor (C1)		- -	Wat Drai Dry- Satu	er-Stained A, and 4B nage Patte Season W Iration Visi	Leaves (Barris) erns (B10) fater Table ble on Aeri	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift De	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		☑ 	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F	ined Leav 1, 2, 4A, 6 (B11) vertebrate Sulfide O Rhizosphe	and 4B) es (B13) dor (C1) eres alon	g Living R	oots (C3)	Watı 4 Drai Dry- Satı Geo	er-Stained A, and 4B nage Patte Season W uration Visi morphic P	Leaves (Band) erns (B10) fater Table ble on Aerio osition (D2)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary Indie Surface High Wa Saturati Water M Sedimet Drift Dep Algal Ma	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		☑ - - -	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres alon ed Iron (C	g Living R C4)	oots (C3)	Wate 4 Drai Dry- Satu Geo Sha	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Ilow Aquita	Leaves (Beerns (B10) later Table ble on Aericosition (D2) and (D3)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)			Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro	ined Leav 1, 2, 4A, (B11) vertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres alonged Iron (Cion in Till	g Living R C4) led Soils ((oots (C3) <u>v</u>	Wate 4 Drai Dry- Satu Geo Sha FAC	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Ilow Aquita -Neutral T	Leaves (Bi c) erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface	cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	f one requir	✓ - - - - -	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaven 1, 2, 4A, 4 (B11) vertebrate Sulfide ORhizosphe of Reduction Reduction Stressed	and 4B) es (B13) dor (C1) eres along ed Iron (Cion in Till I Plants (g Living R C4) led Soils ((oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita :-Neutral T ised Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria	f one requir	— — — — — — — —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro	ined Leaven 1, 2, 4A, 4 (B11) vertebrate Sulfide ORhizosphe of Reduction Reduction Stressed	and 4B) es (B13) dor (C1) eres along ed Iron (Cion in Till I Plants (g Living R C4) led Soils ((oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita :-Neutral T ised Ant Mo	Leaves (Bi c) erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria	f one requir	— — — — — — — —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaven 1, 2, 4A, 4 (B11) vertebrate Sulfide ORhizosphe of Reduction Reduction Stressed	and 4B) es (B13) dor (C1) eres along ed Iron (Cion in Till I Plants (g Living R C4) led Soils ((oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita :-Neutral T ised Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations:	f one requir al Imagery (ave Surface	B7) (B8)	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed plain in Re	es (B13) dor (C1) eres alonged Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils ((oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita :-Neutral T ised Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift Dep Algal Ma Iron Dep Surface Inundati	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aerically Vegetated Concarvations:	f one requir al Imagery (ave Surface	B7)	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed plain in Re	and 4B) es (B13) dor (C1) eres along ed Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils ((oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita :-Neutral T ised Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6)	9) (MLRA (C2) al Imagery	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Water	redrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria by Vegetated Concarvations: ter Present?	f one requir al Imagery (ave Surface Yes Yes	B7) — (B8) X No X X	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reduct Stressed blain in Re ches): ches):	and 4B) es (B13) dor (C1) eres alone ed Iron (Ci ion in Till I Plants (emarks)	g Living R C4) led Soils (I D1) (LRR	oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais Fros	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita E-Neutral T Sed Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6) ummocks ((C2) al Imagery (LRR A) (D7)	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes car	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present? Present?	al Imagery (ave Surface Yes Yes Yes Yes X	B7) — (B8) — No X X No — No — No — No — No — No —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed blain in Re ches): ches): ches): ches):	es (B13) dor (C1) eres alone ed Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils (I D1) (LRR	oots (C3) <u>v</u> C6) A)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais Fros	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita E-Neutral T Sed Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6) ummocks ((C2) al Imagery (LRR A) (D7)	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes car	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concar vations: ter Present?	al Imagery (ave Surface Yes Yes Yes Yes X	B7) — (B8) — No X X No — No — No — No — No — No —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed blain in Re ches): ches): ches): ches):	es (B13) dor (C1) eres alone ed Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils (I D1) (LRR	oots (C3) <u>v</u> C6) A)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais Fros	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita E-Neutral T Sed Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6) ummocks ((C2) al Imagery (LRR A) (D7)	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes can Describe Re	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present? Present?	al Imagery (ave Surface Yes Yes Yes Yes X	B7) — (B8) — No X X No — No — No — No — No — No —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed blain in Re ches): ches): ches): ches):	es (B13) dor (C1) eres alone ed Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils (I D1) (LRR	oots (C3) <u>v</u> C6) A)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais Fros	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita E-Neutral T Sed Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6) ummocks ((C2) al Imagery (LRR A) (D7)	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes car	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present? Present?	al Imagery (ave Surface Yes Yes Yes Yes X	B7) — (B8) — No X X No — No — No — No — No — No —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed blain in Re ches): ches): ches): ches):	es (B13) dor (C1) eres alone ed Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils (I D1) (LRR	oots (C3) <u>v</u> C6) A)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais Fros	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita E-Neutral T Sed Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6) ummocks ((C2) al Imagery (LRR A) (D7)	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes can Describe Re	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present? Present?	al Imagery (ave Surface Yes Yes Yes Yes X	B7) — (B8) — No X X No — No — No — No — No — No —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed blain in Re ches): ches): ches): ches):	es (B13) dor (C1) eres alone ed Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils (I D1) (LRR	oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais Fros	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita E-Neutral T Sed Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6) ummocks ((C2) al Imagery (LRR A) (D7)	1, 2,
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift Den Algal Ma Iron Den Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes can Describe Re	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Concarvations: ter Present? Present?	al Imagery (ave Surface Yes Yes Yes Yes X	B7) — (B8) — No X X No — No — No — No — No — No —	Water-Sta MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide O Rhizosphe of Reduce in Reducti Stressed blain in Re ches): ches): ches): ches):	es (B13) dor (C1) eres alone ed Iron (Cion in Till I Plants (emarks)	g Living R C4) led Soils (I D1) (LRR	oots (C3)	Wate 4 Drai Dry- Satu Geo Sha FAC Rais Fros	er-Stained A, and 4B nage Patte Season W Iration Visi morphic P Illow Aquita E-Neutral T Sed Ant Mo	Leaves (Bi erns (B10) ater Table ble on Aeri osition (D2) ard (D3) est (D5) ands (D6) ummocks ((C2) al Imagery (LRR A) (D7)	1, 2,

Project/Site: Nisqually State Park			City/County	: Pierce		Sampling Date: 12/2	21/2023	
Applicant/Owner: WA State Parks						Sampling Point: W27-SP2		
Investigator(s): Dominguez			Section, Township, Range: None					
Landform (hillslope, terrace, etc.): Up					convex, none): Concave	Slope (_{%):} < 1%	
Subregion (LRR):								
Soil Map Unit Name:								
Are climatic / hydrologic conditions or								
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,					'Normal Circumstances" p		No	
Are Vegetation $\frac{N}{N}$, Soil $\frac{N}{N}$,					eeded, explain any answer		. 110	
SUMMARY OF FINDINGS -							ıres, etc.	
Hydrophytic Vegetation Present?	Yes	No X						
Hydric Soil Present?	Yes			e Sampled		N. X		
Wetland Hydrology Present?	Yes	No <u>X</u>	with	in a Wetlaı	10? Yes	No <u>X</u>		
Remarks: VEGETATION – Use scientif	ic names of pla	nts.						
30'		Absolute	Dominant		Dominance Test works	sheet:		
Tree Stratum (Plot size: 30' 1. PSME Douglas Fir)	<u>% Cover</u> 30	Species? Y	Status FACU	Number of Dominant Sp		(0)	
1. ACMA3 Big Leaf Maple		- 30	<u>'</u>	FACU	That Are OBL, FACW, o	or FAC:	(A)	
			<u> </u>	17100	Total Number of Domina	4	(D)	
3					Species Across All Strat	:a: <u>+</u>	(B)	
4			= Total Co		Percent of Dominant Sp		(A /D)	
Sapling/Shrub Stratum (Plot size:	15' ₎		10(a) 00	vei	That Are OBL, FACW, o		(A/B)	
1. MAAQ Oregon-Grape		25	<u>Y</u>	FACU	Prevalence Index work			
2					OBL species	Multiply by		
3					FACW species			
4					FAC species			
5					FACU species			
Havis Stratums (Blat size, 5'	,	25	_ = Total Co	ver	UPL species			
Herb Stratum (Plot size: 5' 1 POMU Sword Fern)	50	Υ	FACU	Column Totals:			
2. RUUR Trailing Blackberry		- 5	N	FACU				
3.						= B/A =		
4.					Hydrophytic Vegetatio 1 - Rapid Test for H		n	
5					2 - Dominance Test		11	
6					3 - Prevalence Inde			
7					4 - Morphological A		supporting	
8.					data in Remarks	or on a separate she	et)	
9.					5 - Wetland Non-Va	ıscular Plants ¹		
10					Problematic Hydrop	hytic Vegetation ¹ (Ex	(p l ain)	
11					¹ Indicators of hydric soil		gy must	
		55	_= Total Cov	/er	be present, unless distu	rbed or problematic.		
Woody Vine Stratum (Plot size: -								
1					Hydrophytic			
2		<u> </u>			Vegetation Present? Yes	s No X		
% Bare Ground in Herb Stratum 70		<u> </u>	_= Total Cov	/er		<u></u>	_	
Remarks:					1	_		
All bare ground covered	by moss.							

SOIL Sampling Point: W27-SP2

Profile Desc	ription: (Descri	be to the d	epth need	ed to docun	nent the ir	ndicator	or confirm	the abs	ence o	f indicators.)
Depth	Matri	х	_	Redo	x Features	1				
(inches)	Color (moist)		<u>Colo</u>	r (moist)	<u>%</u>	Type ¹	Loc ²	<u>Textu</u>	ıre	Remarks
0 - 16	7.5 YR 4/1	100	_					Lo		
			_							
										-
	=									
17				-I M-t-i OC					21	tion. DI - Dona Linion Manageria
	oncentration, D=[Indicators: (Ap						d Sand Gr			tion: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :
•		Jiicabie to				:u.)		IIIu		
Histosol	oipedon (A2)			ndy Redox (S pped Matrix					_	Muck (A10) Parent Materia l (TF2)
Black Hi				my Mucky N	` ') (except	MI RA 1)		_	Shallow Dark Surface (TF12)
	n Sulfide (A4)			ımy Gleyed I			IIILIOA I)		_	(Explain in Remarks)
	Below Dark Sur	face (A11)		leted Matrix					_	(=
	ark Surface (A12)		Rec	dox Dark Su	rface (F6)			³ Inc	dicators	of hydrophytic vegetation and
Sandy M	lucky Mineral (S1	l)	Dep	leted Dark	Surface (F	7)			wetland	d hydrology must be present,
	leyed Matrix (S4		Red	dox Depress	ions (F8)				unless	disturbed or prob l ematic.
Restrictive L	_ayer (if present	:):								
Type:										V
Depth (inc	ches):							Hydric	Soil P	resent? Yes No X
Remarks:										
HYDROLO	GV.									
=	drology Indicate									1 11 / (0
	cators (minimum	of one requ	irea; check			(DO) (<u>}</u>		ary Indicators (2 or more required)
· 	Water (A1)			Water-Sta			xcept	-		ter-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)				1, 2, 4A, a	nd 4B)				4A, and 4B)
Saturatio	` ,			Salt Crust	` '	(D.4.0)		-		ninage Patterns (B10)
Water M				Aquatic In				-		-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen				- (00)		turation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized F		_	_	–		omorphic Position (D2)
	it or Crust (B4)		_	Presence						allow Aquitard (D3)
	osits (B5)		_	Recent Iro						C-Neutral Test (D5)
	Soil Cracks (B6)	:-!!		Stunted or		•	I) (LKK A)) _		sed Ant Mounds (D6) (LRR A)
	on Visib l e on Aer			Other (Exp	iain in Rei	marks)		-	Fro	st-Heave Hummocks (D7)
	Vegetated Cond	ave Surrac	e (Bo)							
Field Observ		V.	X	D 0 . // .	- I X					
Surface Water				_ Depth (inc						
Water Table				_ Depth (inc						v
Saturation Pr		Yes	_ No <u>^</u>	_ Depth (inc	ches):		_ Wetla	and Hydr	rology l	Present? Yes No X
(includes cap Describe Red	corded Data (stre	am gauge.	monitorina	well, aerial r	ohotos, pre	vious insi	pections). i	if availab	le:	
	(55	January		,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		•	
Remarks:										
rtomants.										



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Scale: 1:3,000

Cowardin Plant Classes

400 US Feet

200

100

Legend

Map Units: Foot_US

NSP NewTrails
 NSP Dark Roundaries

Forested

Emergent
Aquatic Bed
3 of 5 strata

Nisqually State Park
44501 Medical
Springs Road
Eatonville, WA
98328

Figure: Fig. 1A



NSP Park Boundaries

NSP Survey Area
Cowardin

Scrub Shrub



suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

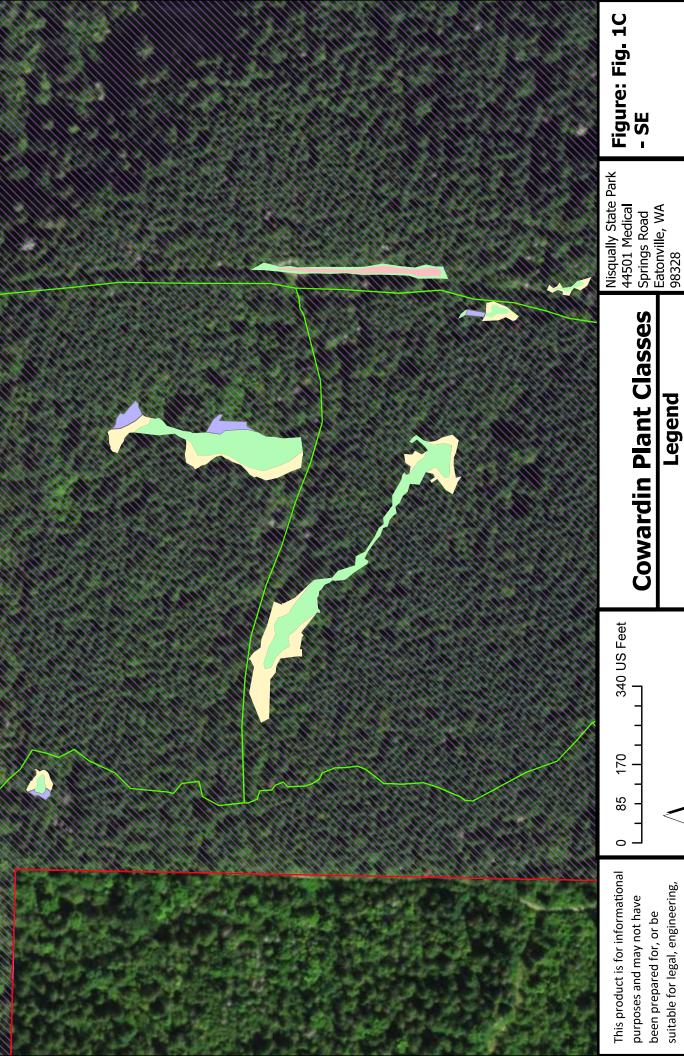
Legend

NSP NewTrails **NSP Park Boundaries NSP Survey Area** Cowardin

Scrub Shrub

Forested Emergent Aquatic Bed 3 of 5 strata 98328





Scale: 1:2,500

Cowardin Plant Classes

Legend

· NSP Park Boundaries NSP NewTrails

NSP Survey Area

Cowardin

Map Units: Foot_US

Scrub Shrub

Forested

Emergent

3 of 5 strata Aquatic Bed

-SE





Scale: 1:1,600

Cowardin Plant Classes

220 US Feet

55

Legend

NSP Park Boundaries NSP NewTrails

NSP Survey Area

Cowardin

Scrub Shrub

Map Units: Foot_US

Emergent

Forested

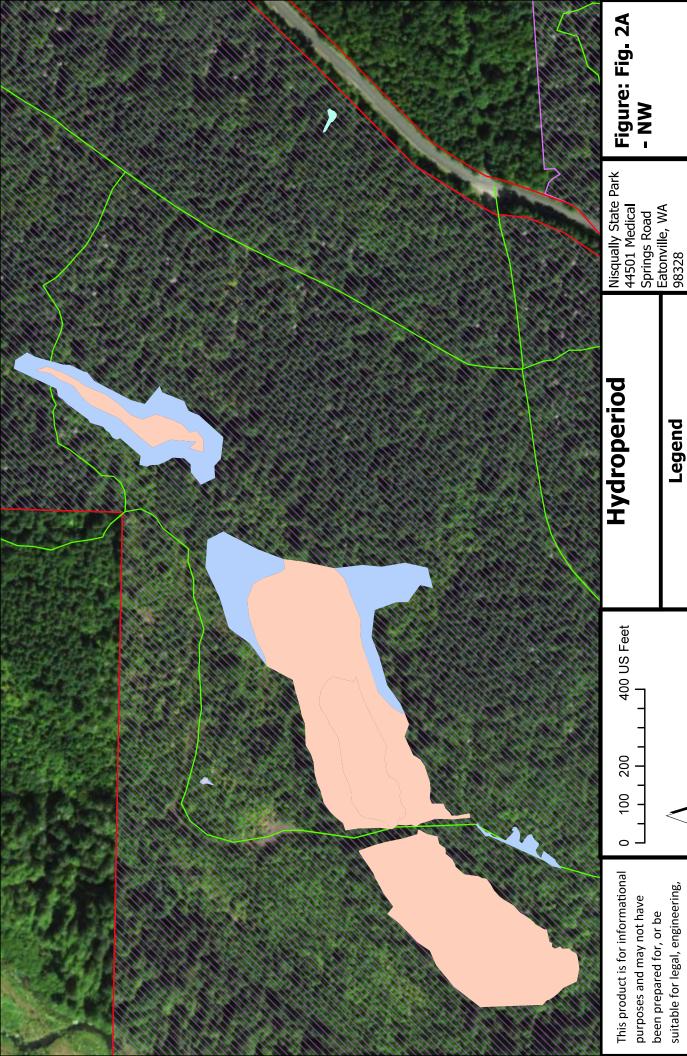
Aquatic Bed

3 of 5 strata

Figure: Fig. 1D - SW

44501 Medical Springs Road Eatonville, WA 98328





Hydroperiod

400 US Feet

200

100

Legend

NSP Survey Area

NSP NewTrails

Scale: 1:3,000

Hydroperiod

Saturated Only

Map Units: Foot_US

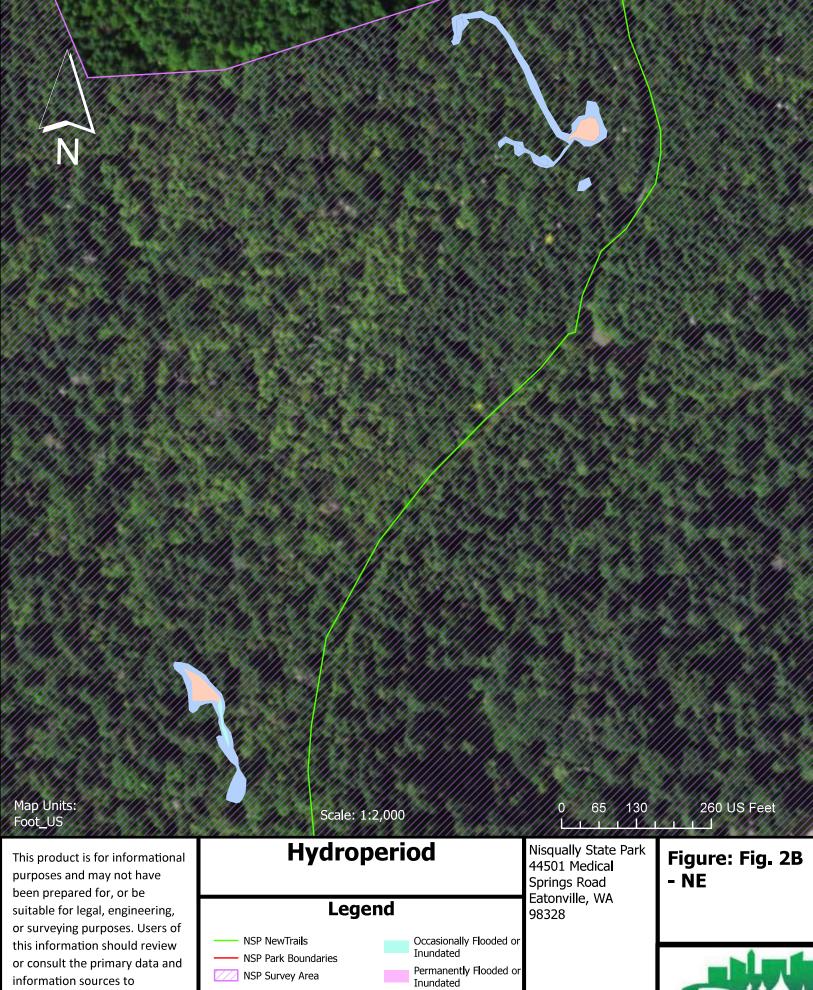
- NSP Park Boundaries

Seasonally flooded or inundated

Permanently Flooded or Inundated Occasionally Flooded or Inundated

Figure: Fig. 2A ≥ N





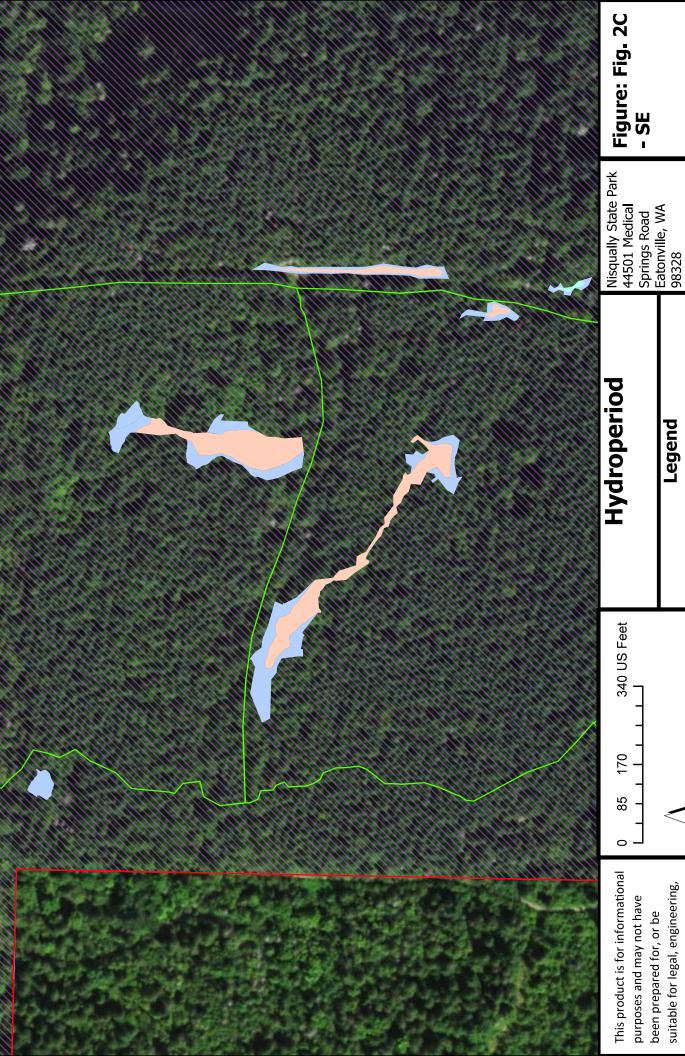
ascertain the usability of the information.

Hydroperiod

Saturated Only

Seasonally flooded or inundated





Legend

-- NSP Park Boundaries

NSP NewTrails

Scale: 1:2,500

NSP Survey Area

Hydroperiod

Saturated Only

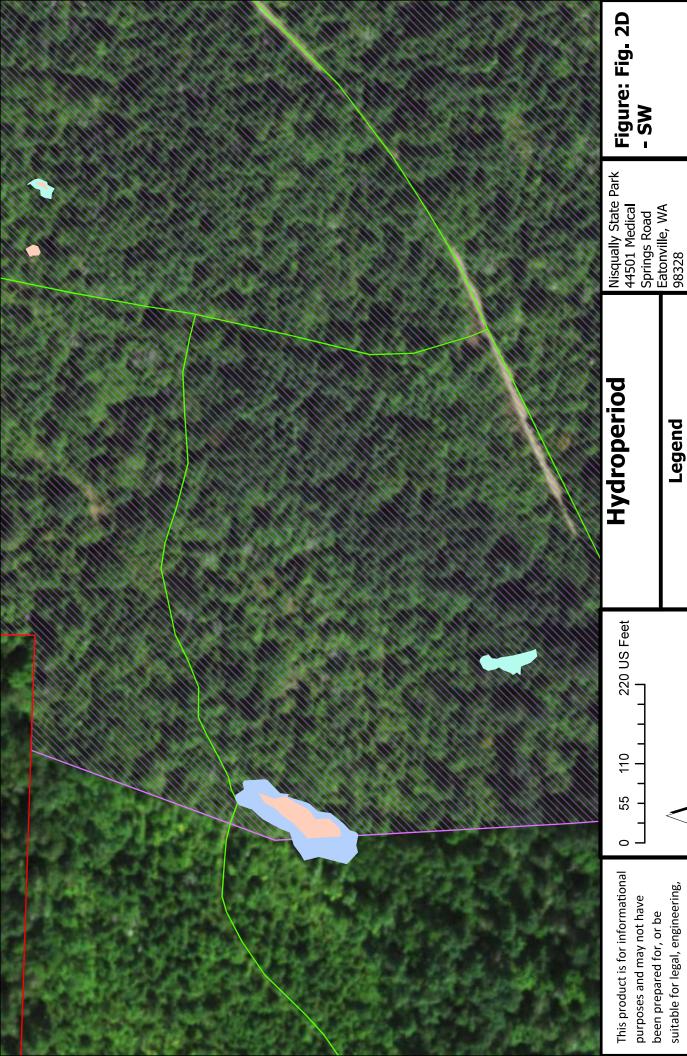
Map Units: Foot_US

Occasionally Flooded or Inundated

Permanently Flooded or Inundated Seasonally flooded or inundated

- SE





Hydroperiod

220 US Feet

55

Legend

NSP Survey Area

NSP NewTrails

Scale: 1:1,600

Saturated Only

Map Units: Foot_US

NSP Park Boundaries

Hydroperiod

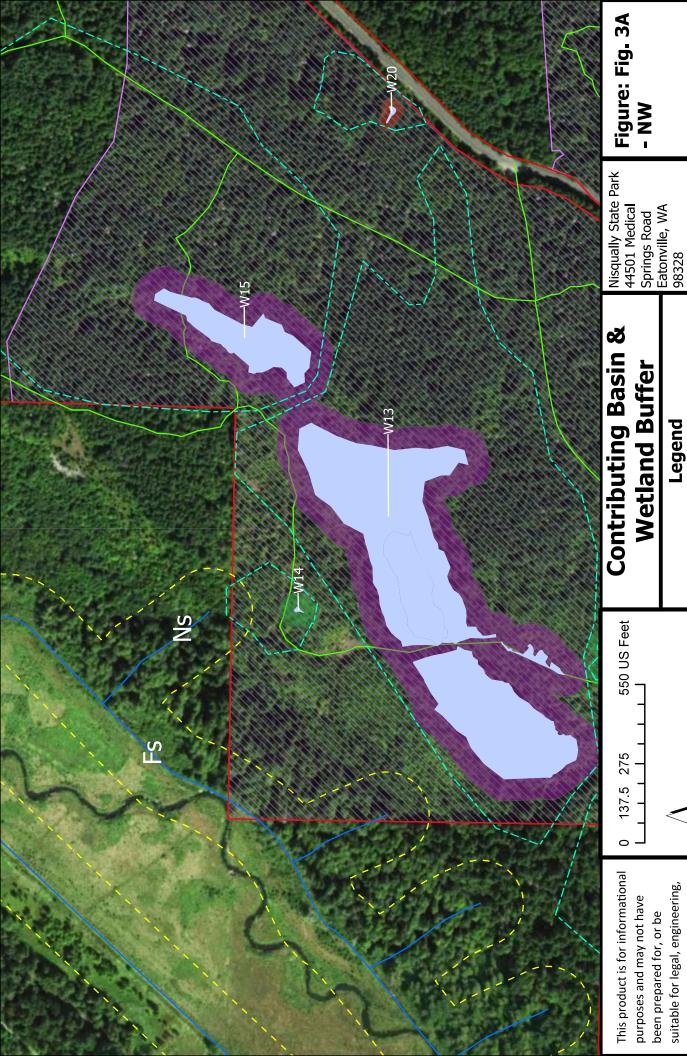
Occasionally Flooded or Inundated

Permanently Flooded or Inundated

Seasonally flooded or inundated

Figure: Fig. 2D - SW





Wetland Buffer

Map Units: Foot_US Scale: 1:4,000

Legend

Wetlands NSP Park Boundaries

NSP NewTrails NHD Streams

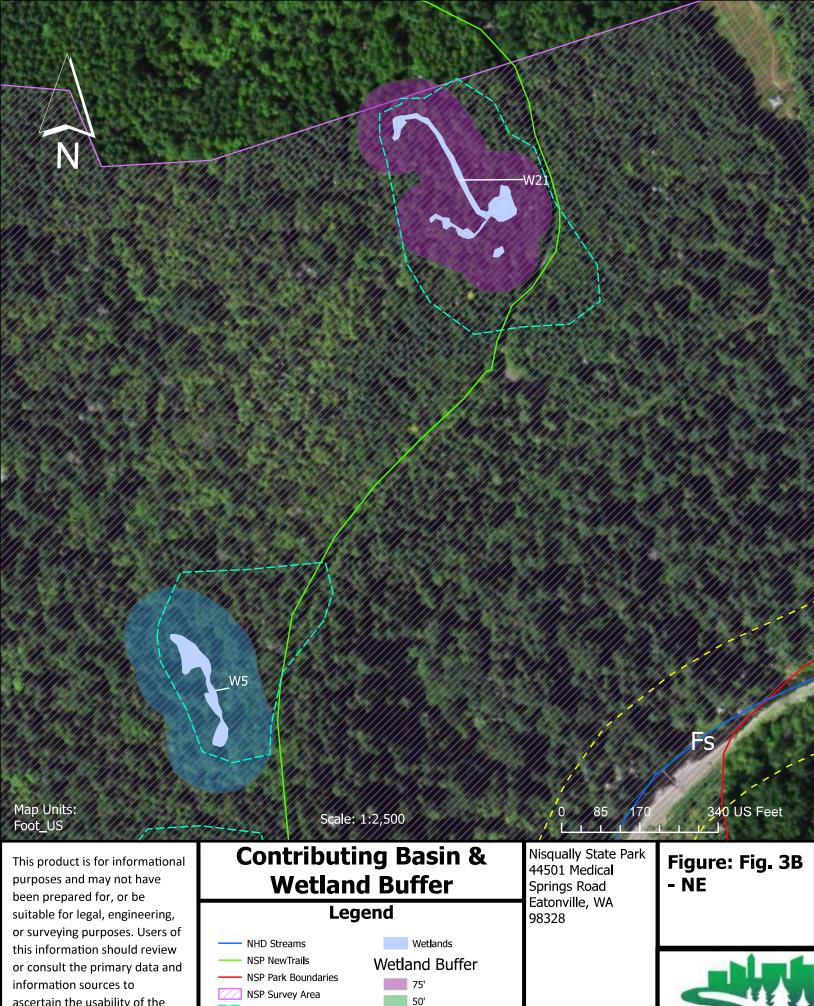
Wetland Buffer

25'

150' Stream Buffer NSP Survey Area

Cont. Basins





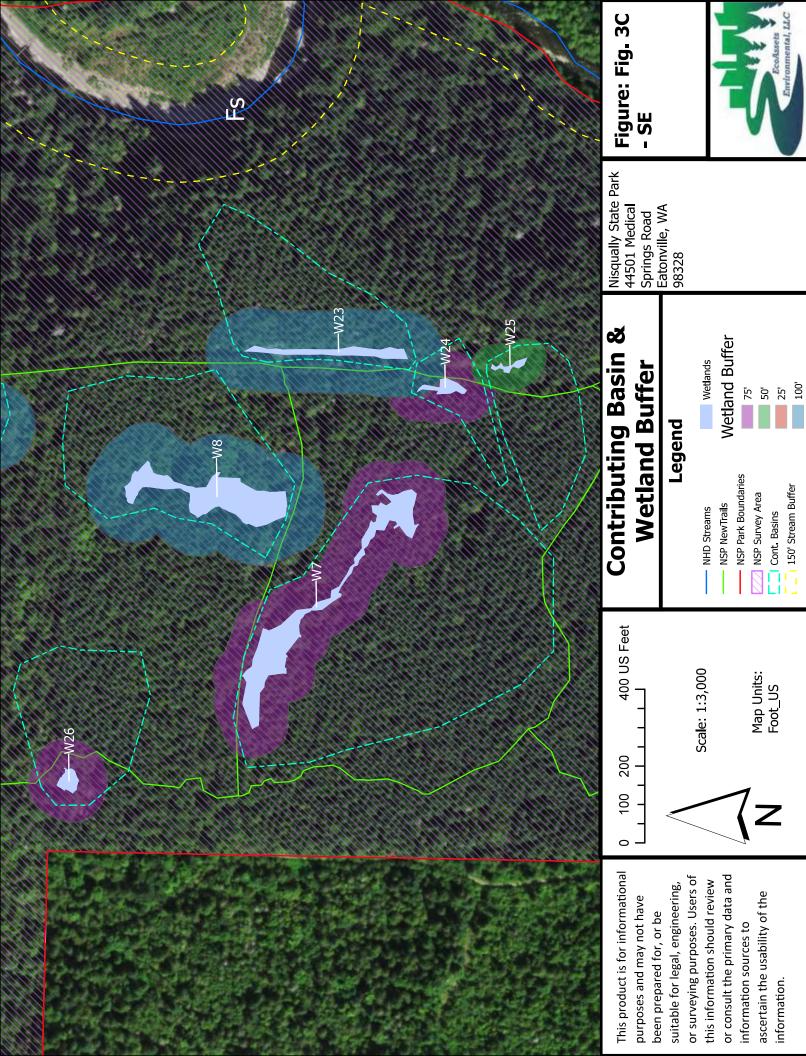
ascertain the usability of the information.

50' Cont. Basins 25'

100'

150' Stream Buffer







This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Contributing Basin & Wetland Buffer

240 US Feet

9

Legend

Wetland Buffer

NSP NewTrails

Scale: 1:1,750

Map Units: Foot_US

NSP Park Boundaries NSP Survey Area Cont. Basins 150' Stream Buffer

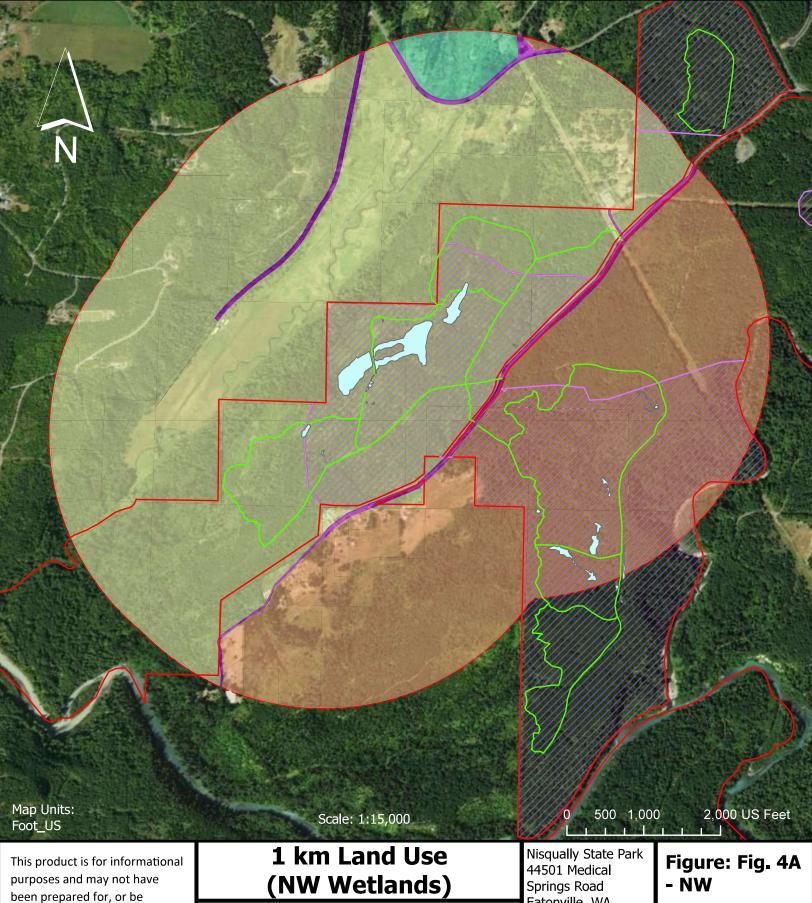
Wetlands

75' 50' 25' 100'

Nisqually State Park 44501 Medical Springs Road Eatonville, WA 98328

Figure: Fig. 3D - SW





suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Legend

Wetlands NSP NewTrails **NSP Park Boundaries**

NSP Survey Area

NW Land Use 1 km 1 km Landuse Buffer

Accessible Low and Moderate (61%)

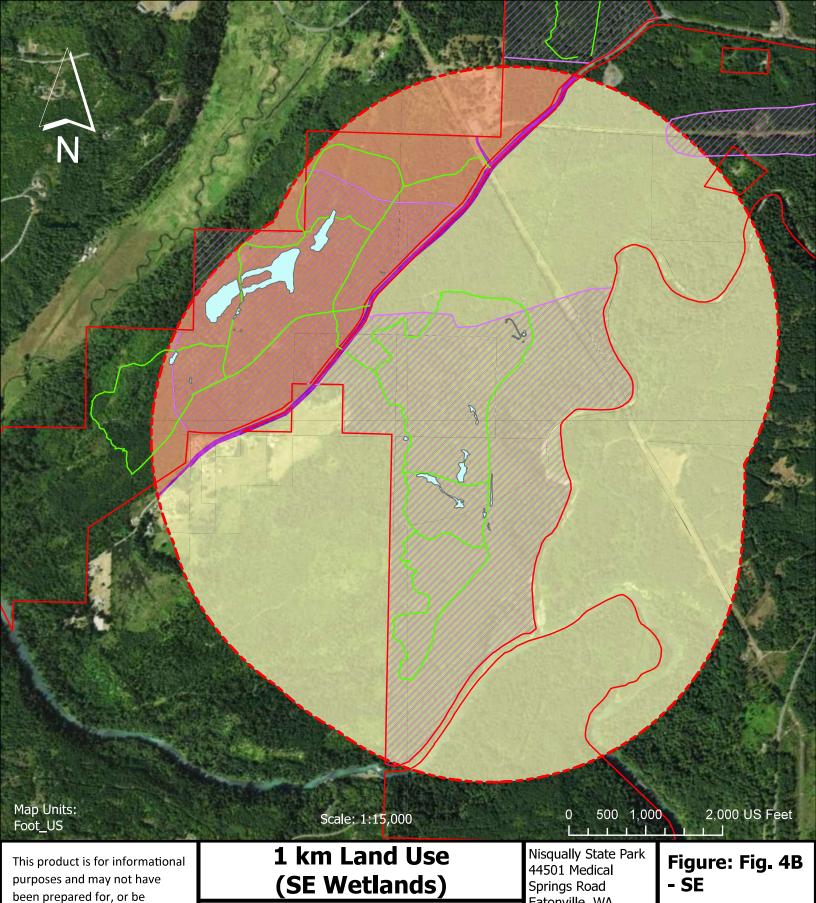
High Intensity (2%)

Low to Moderate Intensity (35%)

Undesturbed (2%)

Eatonville, WA 98328





suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Legend

Wetlands

NSP NewTrails

NSP Park Boundaries NSP Survey Area

1 km Landuse Buffer

SE Land Use 1 km

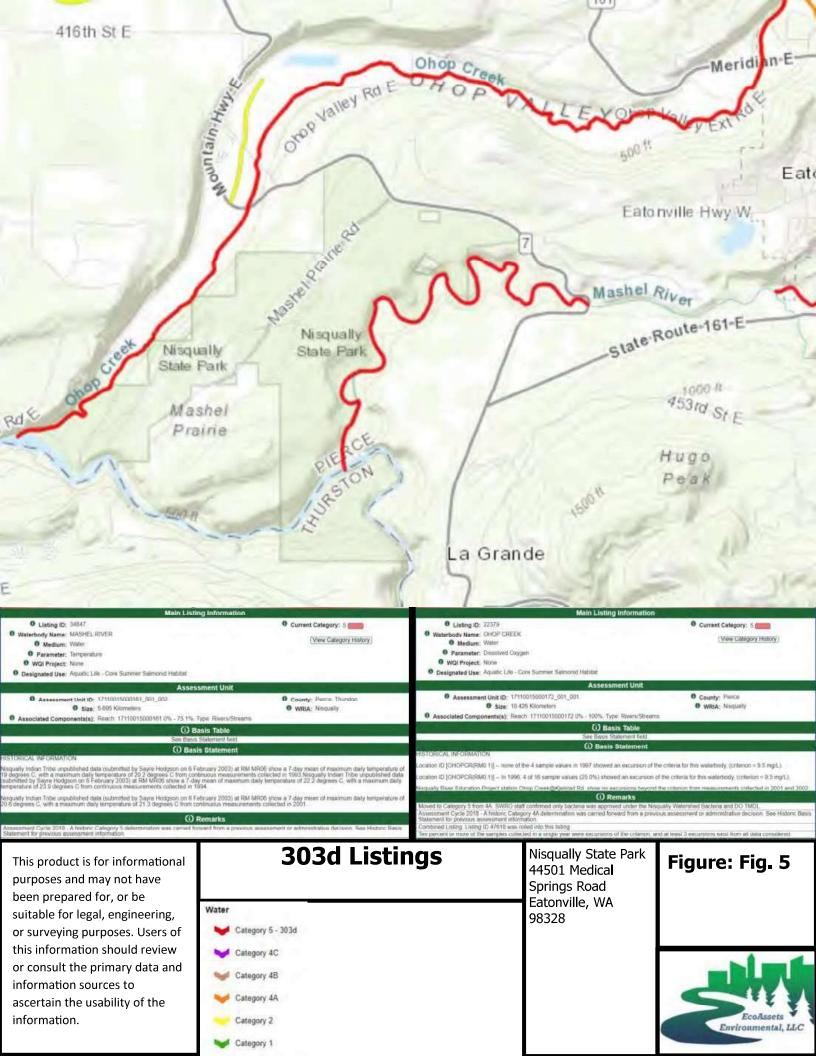
Accessible Low and Moderate (80%)

High Intensity (1%)

Low to Moderate Intensity (19%)

Eatonville, WA 98328





Delineated / Rated Wetlands

Wetland: 5 Depressional Area (sq ft): 14730 Category: III



Wetland: 7 Depressional Area (sq ft): 69686

Category: III

Image Not Available

Wetland: 8 Depressional Area (sq ft): 60085

Category: III



Wetland: 11
Depressional
Area (sq ft): 19617
Category: III



Wetland: 12 Depressional Area (sq ft): 509 Category: III



Wetland: 13
Depressional
Area (sq ft): 704265
Category: III





Wetland: 14 Depressional Area (sq ft): 794 Category: IV



Wetland: 15 Depressional Area (sq ft): 137178 Category: III



Wetland: 16 Depressional Area (sq ft): 3145 Category: III



Wetland: 17
Depressional
Area (sq ft): 1106
Category: III



Wetland: 20 Depressional Area (sq ft): 1812 Category: IV



Wetland: 21 Depressional Area (sq ft): 21315 Category: III





Wetland: 23
Depressional
Area (sq ft): 16158
Category: II

Image Not Available

Wetland: 24
Depressional
Area (sq ft): 5844
Category: III



Wetland: 25 Depressional Area (sq ft): 2790 Category: III



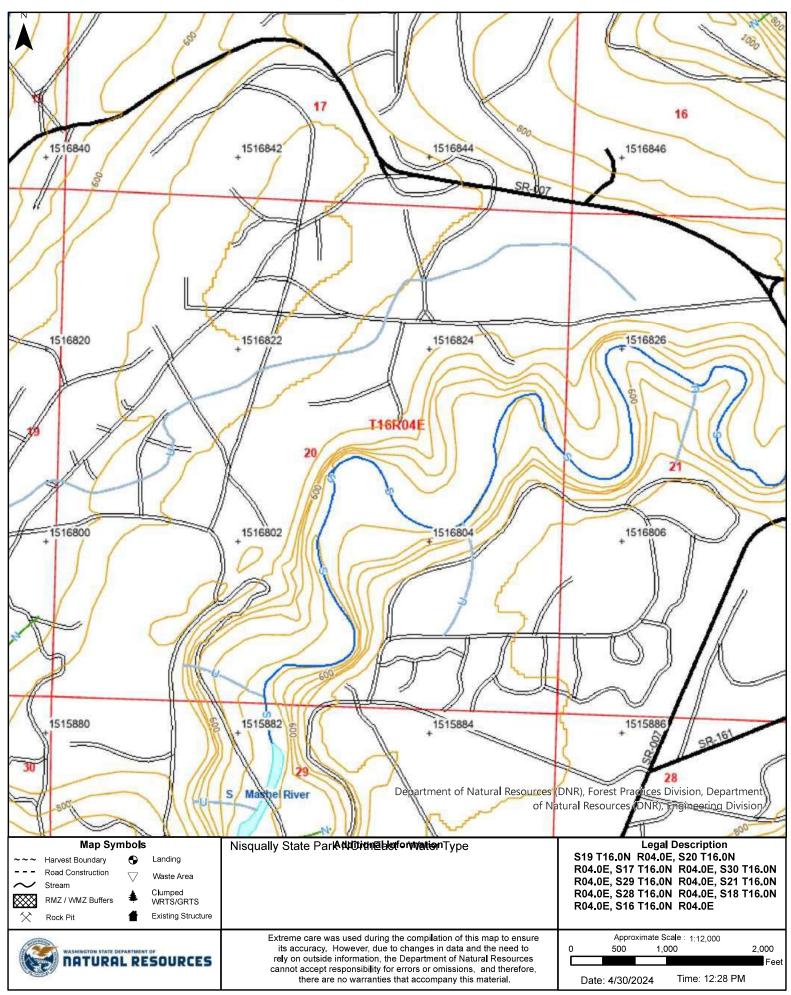
Wetland: 26 Depressional Area (sq ft): 5206 Category: III

Delineated / Not Rated Wetlands





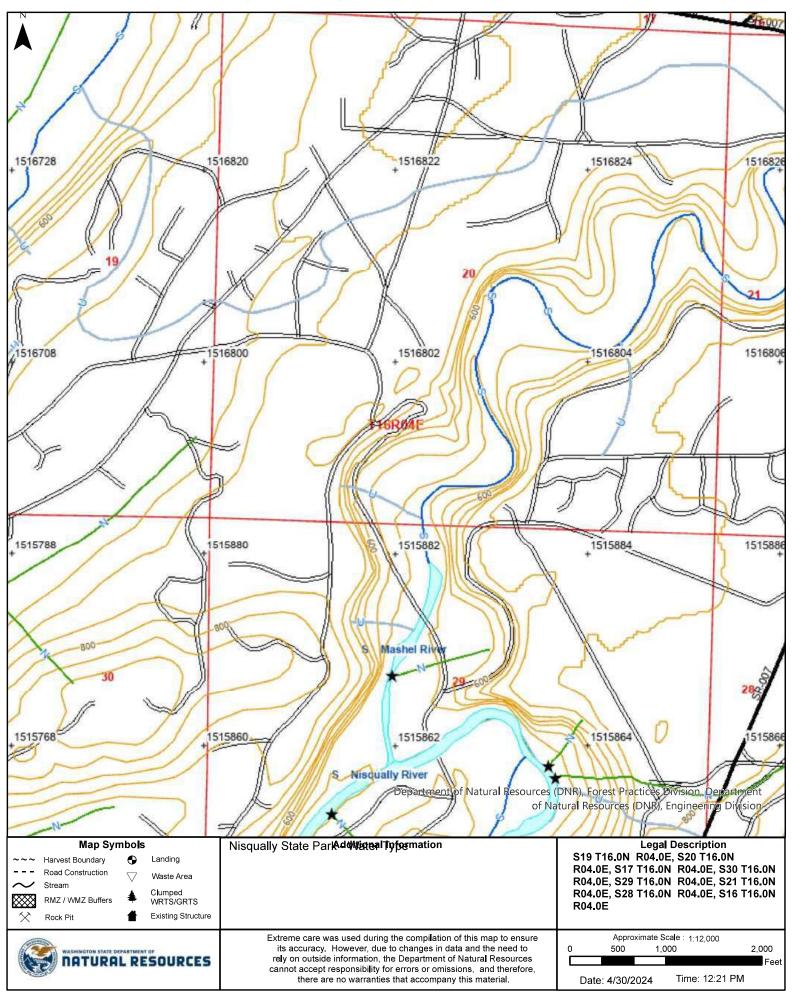
Forest Practices Activity Map - Application #_____



Legend

- Water Type Breaks (FP)
- Map Registration Tics
- Type S
 - Type F
- Type N, Np, Ns
- U, unknown
- X, non-typed per WAC 222-16
- Trai
- Railroad
- Railroad Grade
- Abandoned
 - Orphaned
- 40 ft. Contours
 - Paved Road
- Unpaved Road/Surface Unknown
- Other Impoundments
- Open Freshwater
- Subject to Inundation
- Glacier / Snowfield
 - Wet Area
- Open Saltwater
- Artificial Feature
- Tribal Cultural Resource Contacts
- County Boundaries
- Public Land Survey Townships
- Public Land Survey Sections

Forest Practices Activity Map - Application #_____



							_			
Chanter 19					gy Tools Determin	for Wetland ation		Part 650 Engineering Field Handbook		
Figure 19-7	gure 19-7 Rainfall documentation worksheet									
					all Docun with phot	nentation cographs)				
Date:		3/27	7/2023		<u>-</u>					
Weather Station:	Ta	acoma Nai	rrows AP,	WA		Landowner:			Tract no.:	
County:	County: Pierce					State:	WA		_	
Soil Name:					•	Growing Seaso	on: March 1	3 - Noven	nber 21	
Photo Date:			•							
		Long-te	rm rainfal	ll records]					
	Month	3 yrs. In 10 less than	Normal	3 yrs. In 10 more than	Rainfall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns	
1st month prior*	Oct	2.73	4.14	4.98	3.01	Normal	2	3	6	
2nd month prior*	Sept	0.42	1.43	1.69	2.50	Wet	3	2	6	
3rd month prior*	Aug	0.15	0.76	0.80	0.23	Normal	2	1	2	
* Compared to photo date								Sum=	14	

Note: if sum is Conditon value:

then prior period has been drier

6 - 9 then prior period has been drief than normal Dry =1

10 - 14 then prior period has been normal Normal =2

15 - 18 then prior period has been wetter than normal Wet =3

Conclusions: **Prior period has been normal**

WETS Station: TACOMA NARROWS AP, WA													
Requested years: 1999 - 2023													
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall					
Jan	46.3	37.4	41.8	6.11	4.70	7.09	13	-					
Feb	47.8	36.9	42.3	3.82	2.53	4.58	9	-					
Mar	52.0	38.9	45.5	4.51	3.20	5.35	12	-					
Apr	57.2	41.9	49.5	2.95	2.09	3.50	9	-					
May	64.1	47.1	55.6	2.08	1.17	2.54	6	-					
Jun	69.6	51.5	60.6	1.40	0.75	1.71	4	=					
Jul	75.6	54.8	65.2	0.48	0.14	0.50	2	-					
Aug	75.7	55.5	65.6	0.76	0.15	0.80	2	-					
Sep	69.2	52.2	60.7	1.43	0.42	1.69	4	-					
Oct	58.7	46.5	52.6	4.14	2.73	4.98	8	-					
Nov	50.3	40.5	45.4	6.19	3.64	7.53	12	-					
Dec	45.1	36.8	41.0	5.75	4.18	6.78	13	-					
Annual:					34.43	43.95							
Average	59.3	45.0	52.2	-	-	-	-	-					
Total	-	-	-	39.63			92	-					
GROWING SEASON DATES													
Years with missing data:	24 deg = 1	28 deg =	32 deg =										
rears with missing data.	24 deg - 1	1	0										
Years with no occurrence:	24 deg = 17	28 deg = 2	32 deg = 0										
Data years used:	24 deg = 24	28 deg = 24	32 deg = 25										
Probability	24 F or higher	28 F or higher	32 F or higher										
50 percent *	No occurrence	2/1 to 12/18: 320 days	3/13 to 11/21: 253 days										
70 percent *	No occurrence	1/22 to 12/29: 341 days	3/7 to 11/28: 266 days										
* Percent chance of the growing season occurring between the Beginning and Ending dates.		·	·										
STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1999	M8.22	9.47	5.36	1.30	1.81	1.83	1.39	0.62	M0. 20	2. 77	M10. 21	M5. 87	49. 05
2000	5.08	5.95	3.63	M1.71	M2.75	2.04	0.31	0.32	1. 08	4. 02	3.15	3. 49	33. 53
2001	3.07	2.18	3.24	3.68	1.87	3.35	0.22	3.26	0. 70	3. 46	10. 45	7. 52	43. 00
2002	7.72 8.69	3.88 1.61	4.20 6.09	3.97	1.81 0.69	1.49 0.27	0.34	0.13	0. 52 0.	0. 67 10.	3.15 6.52	6 84 4	34. 72 43.
2003	7.31	3.02	2.25	0.80	2.29	0.27	0.01	3.09	83 2.	20	3.10	4 21 4	15 32.
2005	5.33	1.01	4.61	3.89	3.30	1.21	1.03	0.04	70 1.	60 3.	6.05	18 7.	36 38.
2006	12.36	3.09	2.23	2.48	1.52	1.58	0.18	0.01	04	85 1.	15.	37 M7.	73 48.
									77	40	71	24	57

2007	6.40	3.84	6.09	M1.51	1.61	1.29	1.42	0.43	3. 05	3. 27	3.21	8. 46	40. 58
2008	5.58	2.37	3.41	1.58	0.70	1.31	0.46	2.06	0. 01	M1. 55	7.37	3. 47	29. 87
2009	7.02	1.44	4.07	3.21	3.90	0.36	0.09	0.89	1. 27	M3. 80	M4. 38	3. 21	33. 64
2010	6.75	4.34	4.30	3.65	3.45	2.41	0.89	0.07	5. 23	4. 41	M2. 35	8. 04	45. 89
2011	5.19	3.45	7.03	4.25	3.80	1.04	1.16	0.15	1. 32	3. 73	6.27	3. 24	40. 63
2012	M6.53	M3.36	M8.16	3.27	2.28	2.40	1.01	Т	0. 02	7. 57	9.31	6. 32	50. 23
2013	2.66	2.07	2.59	3.91	2.81	1.33	Т	0.70	M0. 01	МТ	M1. 24	M0. 85	18. 17
2014	3.75	6.80	9.92	4.01	3.98	0.71	0.54	2.08	2. 41	6. 15	5.80	4 <u>.</u> 51	50. 66
2015	4.73	4.76	4.39	1.52	0.50	0.13	0.13	2.54	1. 20	6. 09	7.52	11. 61	45. 12
2016	7.28	5.77	6.37	1.52	0.72	1.21	1.40	0.43	1. 33	11. 23	6.82	3. 79	47. 87
2017	2.97	7.89	9.28	5.22	3.15	1.43	Т	M0.01	1. 23	5. 76	9.17	5. 49	51. 60
2018	8.12	2.01	2.05	5.61	0.19	1.00	0.03	0.15	0. 75	3. 14	3.40	4. 25	30. 70
2019	3.95	M3.75	1.44	2.29	0.52	0.14	0.95	1.20	1. 55	M3. 15	M0. 33	7. 67	26. 94
2020	5.31	1.20	M3.55	1.94	2.64	1.90	0.16	0.21	2. 09	3. 04	6.60	7. 35	35. 99
2021	9.85	5.00	2.46	M1.24	1.29	2.28	0.00	0.07	3. 82	5. 65	10. 72	5. 70	48. 08
2022	7.85	4.96	3.19	3.78	3.91	3.23	0.19	0.04	0. 12	2. 05	5.84	7. 35	42. 51
2023	3.05	2.32	2.89	3.66	0.57	0.48	0.11	0.23	2. 50	M3. 01	M1. 60		20. 42

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2023-11-04

Web Soil Survey National Cooperative Soil Survey

5/2/2024 Page 1 of 4

MAP LEGEND

W Soil Map Unit Polygons Area of Interest (AOI) Soil Map Unit Points Soil Map Unit Lines Special Point Features Area of Interest (AOI) Soils

Very Stony Spot Stony Spot Spoil Area Wet Spot Other





























Borrow Pit

Blowout

Clay Spot



Closed Depression



Gravelly Spot

Gravel Pit







Aerial Photography

Marsh or swamp

ava Flow

Landfill

Mine or Quarry

Miscellaneous Water

Perennial Water Rock Outcrop

Saline Spot Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at

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)

distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts 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.

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

Thurston County Area, Washington Survey Area Data: Version 17, Aug 29, 2023 Soil Survey Area:

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

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: May 26, 2023—Aug

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
2A	Aquic Xerofluvents, level	66.4	4.1%
3B	Barneston gravelly ashy coarse sandy loam, 0 to 8 percent slopes	319.1	19.8%
3C	Barneston gravelly ashy coarse sandy loam, 8 to 15 percent slopes	114.6	7.1%
4A	Bellingham silty clay loam	34.7	2.1%
7A	Briscot loam, variant	59.1	3.7%
9A	Chehalis silt loam	0.0	0.0%
12A	Dupont muck	4.7	0.3%
13B	Everett very gravelly sandy loam, 0 to 8 percent slopes	2.1	0.1%
13D	Everett very gravelly sandy loam, 15 to 30 percent slopes	1.5	0.1%
15A	Greenwater loamy sand	10.3	0.6%
19B	Kapowsin gravelly ashy loam, 0 to 6 percent slopes	385.6	23.9%
19C	Kapowsin gravelly ashy loam, 6 to 15 percent slopes	133.2	8.3%
19D	Kapowsin gravelly ashy loam, 15 to 30 percent slopes	8.4	0.5%
19E	Kapowsin gravelly ashy loam, 30 to 65 percent slopes	3.3	0.2%
19F	Kapowsin gravelly loam, 50 to 70 percent slopes	181.0	11.2%
22A	McKenna gravelly loam	10.1	0.6%
26A	Norma fine sandy loam	2.2	0.1%
29A	Pilchuck fine sand	27.3	1.7%
33A	Reed silty clay	12.9	0.8%
34A	Riverwash	0.9	0.1%
40A	Spana loam	13.6	0.8%
W	Water	13.4	0.8%
Subtotals for Soil Survey A	Area	1,404.2	87.0%
Totals for Area of Interest		1,613.8	100.0%

	Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6		Baldhill very stony sandy loam, 3 to 15 percent slopes	55.1	3.4%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7	Baldhill very stony sandy loam, 15 to 30 percent slopes	77.1	4.8%
8	Baldhill very stony sandy loam, 30 to 60 percent slopes	30.2	1.9%
84	Pilchuck loamy sand	30.5	1.9%
95	Riverwash	2.7	0.2%
129	Water	14.0	0.9%
Subtotals for Soil Survey Area	1	209.5	13.0%
Totals for Area of Interest		1,613.8	100.0%