CRITICAL AREAS REPORT JENSEN MARINE TRADES CENTER — PORT OF FRIDAY HARBOR SAN JUAN ISLAND, WASHINGTON



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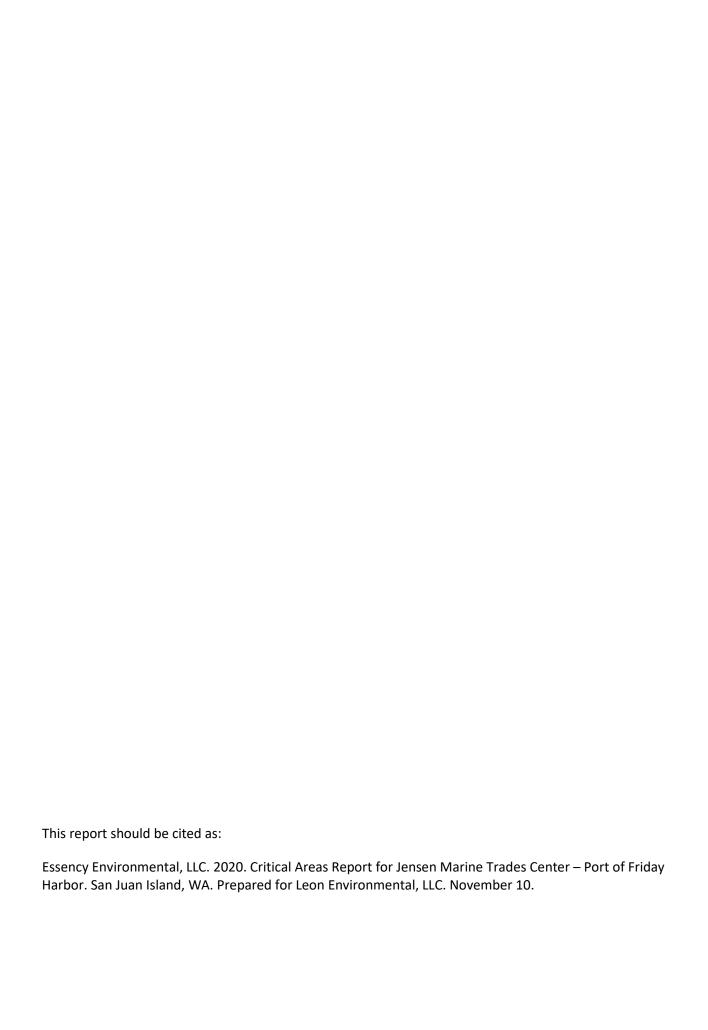


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Background

Essency Environmental prepared this Critical Areas Report for the Port of Friday Harbor's proposed Jensen Boatyard Marine Trades Center project. The project site is located on San Juan County tax parcel number 351341005000 on San Juan Island, Washington. The project site is in Section 13, Township 35N, Range 3W, and the site address is 1293 Turn Point Road, Friday Harbor, Washington. The project location is shown on Figure 1 in Appendix A.

Project contacts are shown in Table 1.

Table 1. Project Contacts.

Organization	Role	Representative	Title	Email\Phone
Essency Environmental LLC	Critical Areas Report	Mary Harenda	Professional Wetland Scientist, Fisheries Biologist	mharenda@cablespeed.com (425) 761-5903
Essency Environmental LLC	Critical Areas Report	Andrew Wones	Ecologist, Marine Biologist	andywones@cablespeed.com (425) 269-3119
Leon Environmental LLC	Project Manager	Gisele Sassen	Planner/ Landscape Architect	sassen@leon- environmental.com (360) 464-9985

Qualifications

This document was prepared by Andrew Wones and Mary Harenda of Essency Environmental, LLC. Essency Environmental, LLC provides environmental consulting services and has conducted many critical areas studies in Washington State.

Andrew Wones has over 30 years of experience in marine and freshwater ecological research and environmental consulting. He has extensive experience with aquatic resources permitting, natural resource inventories, impact assessment, endangered species, mitigation planning and monitoring, and construction monitoring for environmental compliance. Mr. Wones has contributed to numerous environmental impact statements, natural resource studies, provided compliance monitoring services, and written biological assessments for several ports, marinas, housing development underwriters, and utility agencies. He has authored natural resources technical reports and chapters for NEPA/SEPA documents evaluating a variety of projects

including transportation, mining, residential, and recreational developments. Andrew is also a Certified Erosion and Sedimentation Control Lead (CESCL).

Mary Harenda is a Professional Wetland Scientist with over 30 years of diverse experience in biological sciences, project planning and design. She possesses a thorough working knowledge of local, state, and federal permitting and plan requirements, including the Washington SEPA and federal NEPA processes (BAs/BEs/EISs). Mary's extensive technical experience includes wetland inventories, delineations and functional assessments, stream assessments and evaluations, and assessments for wildlife and threatened and endangered species. Her expertise also includes construction oversight on wetland and stream mitigation projects and follow-up monitoring to meet permit requirements. She has completed long-term, multiparameter monitoring on numerous mitigation banks in Washington State. She has worked in both the public and private sectors and has experience across a broad client base including small and large development firms, private home and property owners, small and large businesses, local, state and federal governments and agencies, and public and private utilities. She also mentors students studying wetland science.

This study was conducted following standard critical areas assessment procedures and additional guidance in the San Juan County Unified Development Code (SJCC Title 18). Background research included review of the following sources:

- Federal Emergency Management Agency National Flood Hazard Maps (FEMA 2018)
- San Juan County Polaris GIS System (San Juan County 2020)
- Washington State Department of Ecology 303d list, interactive map (Ecology 2020a)
- Washington Department of Ecology. Washington State Coastal Atlas Map (Ecology 2020b)
- Washington State Department of Fish and Wildlife Priority Habitats and Species database (WDFW 2020a)
- Washington State Department of Fish and Wildlife Salmonscape database (WDFW 2020b)
- USFWS National Wetlands Inventory Mapper (USFWS 2020a)
- USDA NRCS Web Soil Survey (NRCS 2020)
- Washington State Department of Natural Resources Forest Practices Application Mapping Tool (WDNR 2020)
- Aerial photography of the site (Google Earth 2018)
- Site Survey (San Juan Surveying, 2019)
- Stream Inventory for San Juan County (Wild Fish Conservancy 2020)

Essency Environmental Ecologist, Andrew Wones, and Professional Wetland Scientist, Mary Harenda, completed on-site field work on September 28 and 29, 2020. The study area boundaries on the project parcel are shown on Figure 2 in Appendix A. We evaluated the study area for the presence of critical areas. In addition, we evaluated areas within 300 feet to determine if any critical areas were present whose buffers could extend onto the project site. We were able to access adjacent properties to the east and west. Where access to adjacent areas was not available, presence or absence of critical areas was determined using published information sources including published maps and aerial images, and from what could be seen from the project parcel, public roads, and other publicly accessible areas. Ordinary high water mark (OHWM) delineations were completed using Washington State Department of Ecology approved methods (Ecology 2016). Wetland determinations and delineations following US Army Corps of Engineers wetland delineation guidelines (USACE 2010). Critical area delineation flags and sample plot locations were mapped using a GPS (Juniper Systems Geode GPS with EFFIGIS data collection and post processing software).

Project and Site Description

The Port of Friday Harbor is proposing to redevelop the project site. This critical areas study was prepared in support of the Jensen Marine Trades Center. The boundary for this study is shown on Figure 2 in Appendix A. A survey of the Jensen's Shipyard properties completed by San Juan Surveying is included as Appendix B. Site photos are shown in Appendix C.

The project site is located on Parcel 351341005000, which is designated as "Rural Industrial" under the San Juan County Comprehensive Plan (San Juan County 2020). The project site is fronted by the marine shoreline of Friday Harbor/Shipyard Cove. Shipbuilding activities occurred on the site from the early 20th century through the late 1970s. Maintenance activities are ongoing to present day west of the study area. An aerial image of the site taken in 1932 available on the San Juan County GIS site shows that a portion of the intertidal zone within Shipyard Cove was filled associated with gravel mining and export from the hillside south of Turn Point Road. A conveyor belt system, visible on the aerial image from 1932, was used to move material down gradient. Some of the westernmost portion of the project site in the area of the boat building may have been filled as part of this effort.

Over the years, a variety of shipbuilding debris was disposed of in the upper intertidal zone within Shipyard Cove and buried in the shoreline bank. Rusted metal, tires, pieces of boats, and other miscellaneous debris are visible along the shore, both in the water and embedded in the shoreline bluff within the project boundaries. The former boat building located in the southwestern portion of the project site is also filled with old equipment and boat building materials. According to information provided by Leon Environmental, LLC, areas of both marine and upland sediment contamination are present within the study area, on the Port of Friday Harbor lands to the west, and in adjacent marine areas within Friday Harbor/Shipyard Cove.

In addition to the former boat building, other existing development with the project site includes a concrete slab boat ramp, a pump house and water tank, an approximately 230-square foot shed, another collapsed shed, a gravel pad along the base of the Turn Point Road prism, and a dirt/gravel driveway. A review of timeline aerial images on Google Earth show that between approximately 1990 and 2009, upland areas away from the shoreline were farmed. Several additional buildings/greenhouses were present near the road, as well as a constructed farm pond that may have been used for irrigation. The aerial image from 1932 shows the site largely dominated by herbaceous vegetation which would also indicate agricultural use. A grove of trees is visible on the image in the southeast portion of the project area and a row of trees is visible along the marine shoreline east of the boat building.

A row of trees, including some mature conifers, is currently present on the low bluff along the marine shoreline between the existing shed and east project boundary. Trees inventoried included western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), and Scouler's willow (*Salix scouleriana*). Individual tree species and diameters are shown on a table on Figure 2. The shoreline bluff is slightly undercut causing some of the trees to hang out over the high

tide line. Two of the cedar trees (T7 and T9 on Figure 2) are horizontal at the base and seem likely to fall into the cove in the near future.

Remaining upland habitat is currently dominated by grasses and forbs including: meadow fescue (*Schedonorus pratensis*), tall fescue (*Schedonorus arundinaceus*), velvet grass (*Holcus lanatus*), orchard grass (*Dactylis glomerata*), English plantain (*Plantago lanceolata*), cat's ear (*Hypochaeris radicata*), field horsetail (*Equisetum arvense*), bentgrass (*Agrostis gigantea*), reed canarygrass (*Phalaris arundinacea*), Queen Anne's lace (*Daucus carota*), soft rush (*Juncus effusus*), Kentucky bluegrass (*Poa pratensis*), white clover (*Trifolium repens*), red clover (*Trifolium pratense*), Canada thistle (*Cirsium arvense*), and bull thistle (*Cirsium vulgare*). A few patches of non-native shrubs, blackberry (*Rubus armeniacus*) and Scotch broom (*Cytisus scoparius*), are also present.

Site soils are shown on NRCS maps as "beaches" in marine areas, and Mitchellbay-Rock Outcrop-Killebrew complex, 3 to 15 percent slopes in the remainder of the site. The latter is not considered a hydric soil unit, although can be seasonally wet due to the shallow depth to either a dense restrictive soil layer or bedrock (NRCS 2020). Both Mitchellbay and Killebrew soils formed in glacial drift over dense glaciomarine deposits and typically have a soil texture of gravelly sandy loam or sandy loam in the top 17-20 inches. Observed soil characteristics on the project site match texture, color, and other general characteristics of the mapped soils, although past disturbance is evident (see Soils section of Wetland Determination Forms in Appendix D).

Shoreline Jurisdiction

The entire project area is within Shoreline jurisdiction, i.e. within 200 feet of the marine OHWM of Friday Harbor/Shipyard Cove (San Juan County 2020). Parcel 351341005000 has a Shoreline designation of Port, Marina, and Transportation (PMT) and Rural Industrial land use (San Juan County 2020).

Critical Areas

San Juan County Code adopted critical areas overlay districts to "protect the functions and values in critical areas in conformance with the requirements of the Washington Growth Management Act and the policies of the San Juan County Comprehensive Plan" (SJCC 18.35.020). Per SJCC 18.35.025, "These overlay districts provide regulations for land use, and development and vegetation removal in critical areas and areas adjacent to critical areas as established in SJCC 18.35.055 through 18.35.140." In addition, SJCC Chapter 18.50 – Shoreline Master Program, regulates critical areas present within Shoreline jurisdiction. SJCC 18.50.130 pertains to critical areas in Shoreline jurisdiction and states that provisions of the critical areas regulations in SJCC 18.35 that are not consistent with the RCW 90.58, the State Shoreline Management Act, and its supporting WACS do not apply in Shoreline jurisdiction.

There are five categories of critical areas defined and regulated under San Juan County Code:

- Geologically Hazardous Areas
- Frequently Flooded Areas

- Critical Aquifer Recharge Areas
- Wetlands
- Fish and Wildlife Habitat Conservation Areas

This study focused on identifying the presence of any regulated wetlands, regulated surface waters, and their buffers. General information is also provided in this report on the occurrence of other critical areas as defined in the San Juan County Code.

Geologically Hazard Areas

The San Juan County Polaris site does not map any Geologically Hazardous Areas within the project boundaries (San Juan County 2020). The Turn Point Road prism is mapped as "Soils With Subclass 'e' ". Subclass 'e' soils are susceptible to erosion. The project area is mapped as having a low to very low susceptibility to liquefaction (Palmer et. al 2004). Essency Environmental is not qualified to further evaluate the project site for potential geologic hazards.

Frequently Flooded Areas

A portion of the project site is mapped as within the marine 100-year floodplain (Zone AE) by the Federal Emergency Management Agency (2018) and San Juan County (2020) (Figure 2 in Appendix A).

Critical Aquifer Recharge Areas

The entire project area and surrounding parcels are mapped as an Aquifer Recharge Area (San Juan County 2020). A pump house and water tank are present on site (Figure 2 in Appendix A; Survey Drawing in Appendix B). The Washington Department of Ecology's interactive well map does not have a record of a water well on the project site (Ecology 2020c). A domestic water well south of Turn Point Road upslope from the project area is shown on the Ecology map. Ecology's map does not show exempt wells.

Wetlands

We completed field work on September 28-29, 2020. An unseasonably heavy precipitation period occurred over the four days prior to our site visit. Friday Harbor Airport recorded 1.59 inches of rainfall from September 23-27, which is more than the average total rainfall of 1.41 inches for the entire month of September (Source: NOAA Regional Climate Center at http://agacis.rcc-acis.org/). The total rainfall recorded for September 2020 at Friday Harbor Airport was 1.87 inches.

We sampled six locations, P1-P6 shown on Figure 2, that appeared most likely to support wetland conditions. Wetland Determination Forms are in Appendix D. No jurisdictional wetlands are present on the project site. None of the sample plots exhibited hydric soil or wetland hydrology indicators. Four of the six plots did not meet criteria for hydrophytic vegetation. We were able to access adjacent areas to the east and west and determined that no wetlands are present within the maximum regulated buffer widths.

An excavated ditch is present on the adjacent parcel to the east. The ditch carries water downslope from roadside ditches via a culvert under Turn Point Road. A vertical cut slope is present on the upslope side of Turn Point Road and there is no channel or other upslope source of water that would indicate a wetland or a stream was historically present in this area. This ditch is not readily visible on 1932 aerial image, although the quality of the image is not clear enough to see this level of detail. The oldest aerial on which the ditch is clearly visible is from 2008. Water from this culvert under the road sheet flows down the slope into the excavated ditch.

The ditch is trapezoidal, ranges from 3-6 feet wide, and is about 1-foot deep. It ends abruptly at both the upslope and downslope ends. A perched, 6-in corrugated plastic pipe (CPP) discharges into the ditch near the upslope end that appears to carry water from a drain system (French drain?) on the adjacent parcel to the east. There was a steady trickle coming out of the pipe on 9/28/20. The water immediately infiltrated into the bottom of the ditch. There was no surface flow further downslope. There is a triangular shaped area dominated by reed canarygrass (*Phalaris arundinacea* – FACW), soft rush (*Juncus effusus* – FACW), and field horsetail (*Equisetum arvense* – FAC), downslope of the ditch. A shallow swale is present in this area that appears to carry surface flows to the edge of bluff during wet periods when surface water overflows from the downslope end of the ditch. The soils on either side of the ditch are upland soils and did not have hydric soil indicators. The soils in the triangular area are also upland and did not have hydric soil indicators. No indicators of either hydric soil or wetland hydrology were present in the sample plots in this area (P4 and P6). Observed soil characteristics match those of the mapped series, Mitchellbay-Rock Outcrop-Killebrew Complex, 3 to 15 percent slopes. This ditch is not a regulated feature under San Juan County Code.

What appears to be a remnant portion of a farm pond, perhaps an irrigation pond, is present in the southcentral portion of site (Figure 2). This pond is visible on a 2008 aerial but was largely filled in by 2011. Aerials from 2008 and prior show several buildings in the vicinity, and active agricultural activities including greenhouses, tilled beds, and partitioned growing structures. A pump house and water tank are still present on the property to the southwest of the old pond (Figure 2 and Survey Drawing in Appendix B). This pond may have been lined to hold water which explains why cattails (*Typha sp.*) are present in an area of surrounding upland soils and no obvious natural water source. This artificial water feature is not regulated by San Juan County code per the definition of "Wetland" in the code which clearly excludes irrigation and drainage ditches, and farm ponds. From SJCC 18.20.230 - "Wetland" means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands.

Fish and Wildlife Habitat Conservation Areas

SJCC 18.35.115 denotes the types of regulated Fish and Wildlife Habitat Conservation Areas (FWHCAs):

- Areas with which Endangered, Threatened and Sensitive Species have a primary association
- Shellfish area
- Kelp and eelgrass beds
- Herring, smelt, sand lance and other forage fish spawning areas
- Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat
- Lakes
- Streams
- State natural area preserves, natural resource conservation areas and state wildlife areas
- Habitats of Local Importance: critical saltwater habitats, west side prairie, herbaceous balds and bluffs, Garry oak woodlands and savannas, pocket beaches, and bluff backed beaches. Critical saltwater habitats include: kelp beds, eelgrass beds, spawning and holding areas for forage fish, shellfish beds, mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association.
- Areas with which the following Species of Local Importance have a primary association: black oystercatcher, golden eagle, great blue heron, island marble butterfly, pigeon guillemot, Townsend's big-eared bat, flying squirrel, sharp-tailed snake, western toad, Taylor's checkerspot butterfly, valley silverspot butterfly, sand verbena moth, areas with roosting concentrations of bats, active nests of any of the birds listed in SJCC 18.35.115 (I)(15), brittle prickly pear cactus, and Alaska alkaligrass.

San Juan County maps do not show any Fish and Wildlife Conservation Areas on or in the vicinity of the project site (San Juan County 2020).

The Washington Department of Fish and Wildlife Priority Species and Habitats (PHS) database (WDFW 2020) lists golden eagle (*Aquila chrysaetos*) and pinto abalone (*Haliotis kamtschatkana*) as present in Township 35N, Range 3W, and the island marble butterfly (*Euchloe ausonides insulanus*) [federally listed Endangered] as present in Section 13 of Township 35N, Range 3W. None of these species are known to have a primary association with the project site. The project site is at the northern edge of area mapped as the historic range of the island marble butterfly (USFWS 2020b). The mapped current range is limited to Cattle Point approximately 4 miles southwest of Parcel 351341005000 (USFWS 2020b). This species depends on a host plant, the common field mustard (*Brassica rapa*) in upland habitat. No *Brassica rapa* was observed during our September 2020 site visit.

As previously described in detail in the **Wetlands** section, above, an excavated ditch is present on the adjacent parcel to the east. The ditch carries water downslope from roadside ditches via the culvert under Turn Point Road. A vertical cut slope is present on the upslope side of Turn Point Road and there is no channel or other upslope source of water that would indicate a wetland or a stream was historically present in this area. In addition, none of the resource maps including maps published by WDFW, WDNR, Ecology, Wild Fish Conservancy, and San Juan County, identify any streams on the project site or adjacent properties. This ditch is excluded from regulation as a FHWCA under SJCC 18.35.115: Fish and wildlife habitat conservation areas do not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company.

The intertidal portion of the project site is critical saltwater habitat regulated as an Aquatic FWHCA. The mapped OHWM of this area is shown on Figure 2. The upper intertidal area north of the boat building is dominated by vascular plant species including: pickleweed (*Salicornia virginica*), seaside plantain (*Plantago maritima*), spear oracle (*Atriplex patula*), salt grass (*Distichlis spicata*), tufted hairgrass (*Deschampsia cespitosa*), seaside arrow-grass (*Triglochin maritima*), and silver beachweed (*Ambrosia chamissonis*). North of the boat building, we observed a single eelgrass plant growing at approximately the 1 to 2-ft elevation (relative to mean lower low water). The Washington Coastal Zone Atlas (Ecology 2020b) maps patchy eelgrass throughout Shipyard Cove of Friday Harbor. Aerial images (Ecology 2020, Google Earth 2018, 2016, 2014, 2011) show patches of green that likely indicate the presence of patchy eelgrass and/or benthic macroalgae (e.g. *Ulva sp.*) at < 2-ft elevation north of the project site.

The intertidal area on the project parcel waterward of the bluff between the existing shed to the east project boundary is cobble-dominated beach habitat. Sparse macroalgae (*Fucus sp.*) grows attached to cobbles in this area. Several large logs are present on the beach. Over the years, a variety of shipbuilding debris was disposed of in the upper intertidal zone within Shipyard Cove and buried in the shoreline bank. Rusted metal, tires, pieces of boats, and other miscellaneous debris are visible along the shore, both in the water and embedded in the banks within the project boundaries. The former boat building located in southwestern portion of the project site is also filled with old equipment and shipbuilding materials. According to information provided by Leon Environmental, LLC, known areas of both marine and upland sediment contamination are present within the study area boundaries, on the Port of Friday Harbor lands to the west, and in adjacent marine areas within Friday Harbor/Shipyard Cove. Gravel and sand areas north of the bluff within the 5 to 7-ft elevation range could provide substrate for surf smelt spawning. However, Washington State maps of forage fish spawning areas do not show forage fish spawning sites in the project vicinity (Washington State 2020). Vessel debris may make this substrate suboptimal for forage fish spawning.

A line of trees, including some conifers, is present on the low bluff along the shoreline between the existing shed and east project boundary. We mapped all trees on the project site. Individual tree species, drip lines, and diameters are shown on Figure 2. Trees inventoried included western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), and Scouler's willow (*Salix scouleriana*). The shoreline bluff is slightly undercut causing some of the trees to hang out over the high tide line. Shrubs are also present on the shoreline bluff. Species noted include ocean spray (*Holodiscus discolor*), salal (*Gaultheria shallon*), Nootka rose (*Rosa nutkana*),

peafruit rose (*Rosa pisocarpa*), snowberry (*Symphoricarpos albus*), and Himalayan blackberry (*Rubus armeniacus*).

Regulatory Considerations

The entire project area is within Shoreline jurisdiction, i.e. within 200 feet of the marine OHWM of Friday Harbor/Shipyard Cove. The State Shoreline Management Act (RCW 90.58) governs activities within Shoreline jurisdiction. Chapter 18.50 of the San Juan County Code addresses implementation of the Shoreline Management Act in San Juan County. Either a Shorelines Exemption or Shorelines Substantial Development Permit will be required for development within Shoreline jurisdiction.

Critical areas and buffers, including water quality buffers and tree protection zones, located in Shoreline jurisdiction are regulated by both SJCC 18.50 – Shoreline Master Program, and SJCC 18.35 – Critical Areas Overlay District. SJCC 18.50.130 states that provisions of the critical areas regulations in SJCC 18.35 that are not consistent with the RCW 90.58, the State Shoreline Management Act, and its supporting WACS do not apply in Shoreline jurisdiction. SJCC 18.50.140 (A) directs that: "Shoreline development, land uses, structures and activities must meet the no net loss requirement of WAC 173-26-186(8)(b). If project proposals do not comply with the critical area protections in SJCC 18.50.130, applicants must submit a mitigation sequence analysis to the department."

Any specific project proposal for the site will be reviewed for consistency with Shoreline and Critical Areas regulations in the San Juan County Code, and consistency with the Shoreline Management Plan and Comprehensive Plan.

Other permits that may be required for any activities occurring below the OHWM and MHHW of Friday Harbor/Shipyard Cove include: Section 10/Section 404 permit from the US Army Corps of Engineers, Section 401 Water Quality Certification from the Washington State Department of Ecology, Coastal Zone Management Certification from the Washington State Department of Ecology, a Hydraulic Project Approval from the Washington State Department of Fish and Wildlife, and an Aquatic Lands Use Permit from the Washington State Department of Natural Resources.

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Appendix A: Figures

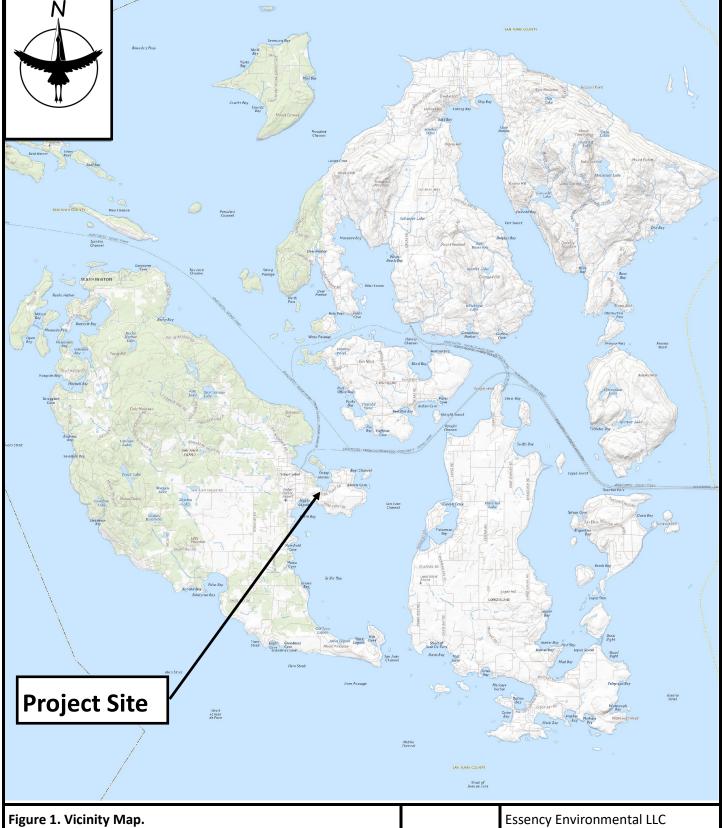


Figure 1. Vicinity Map.

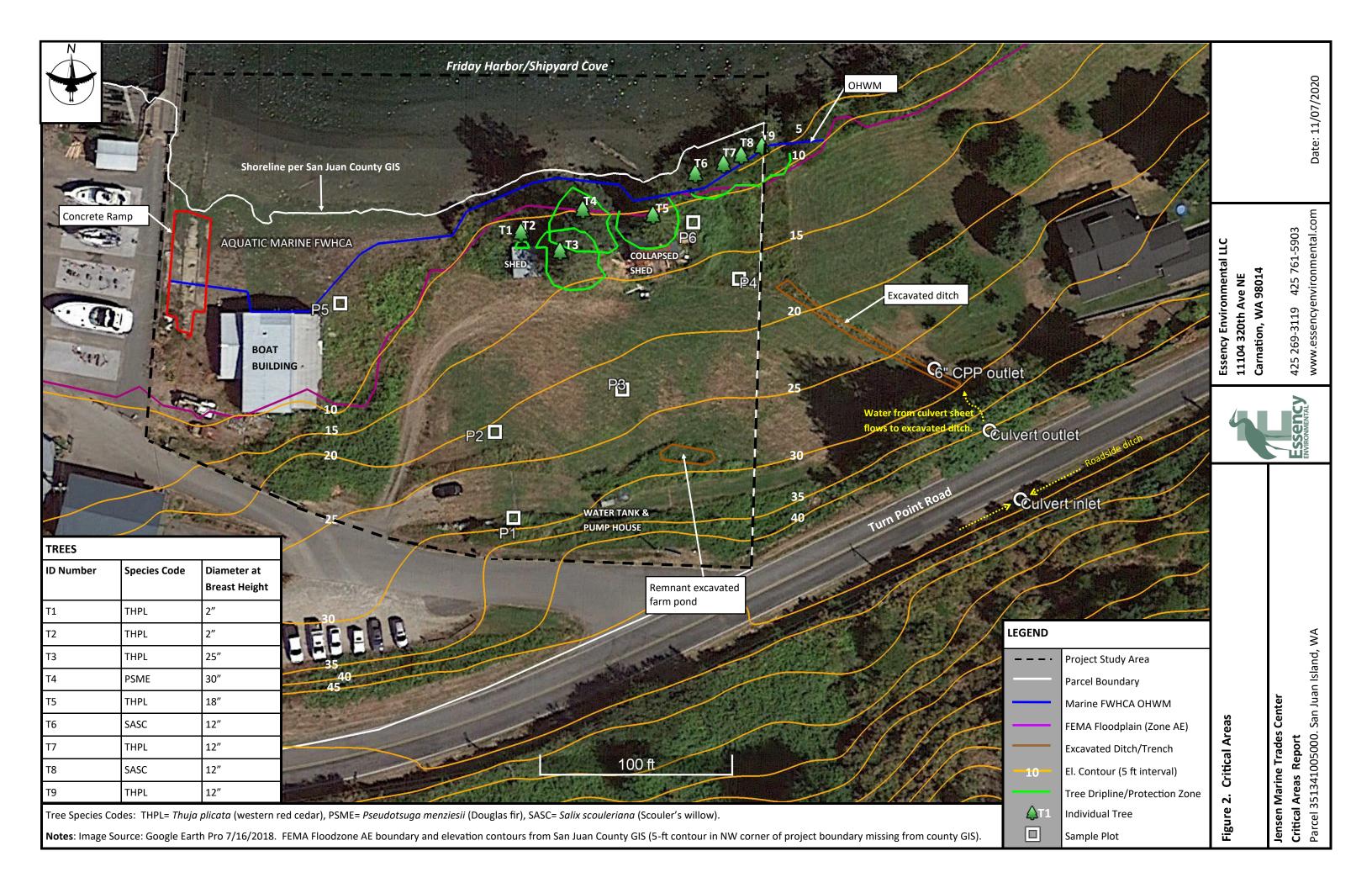
Image Source: USGS The National Map (https://viewer.nationalmap.gov/

Jensen Marine Trades Center Parcel 351341005000 Critical Areas Report

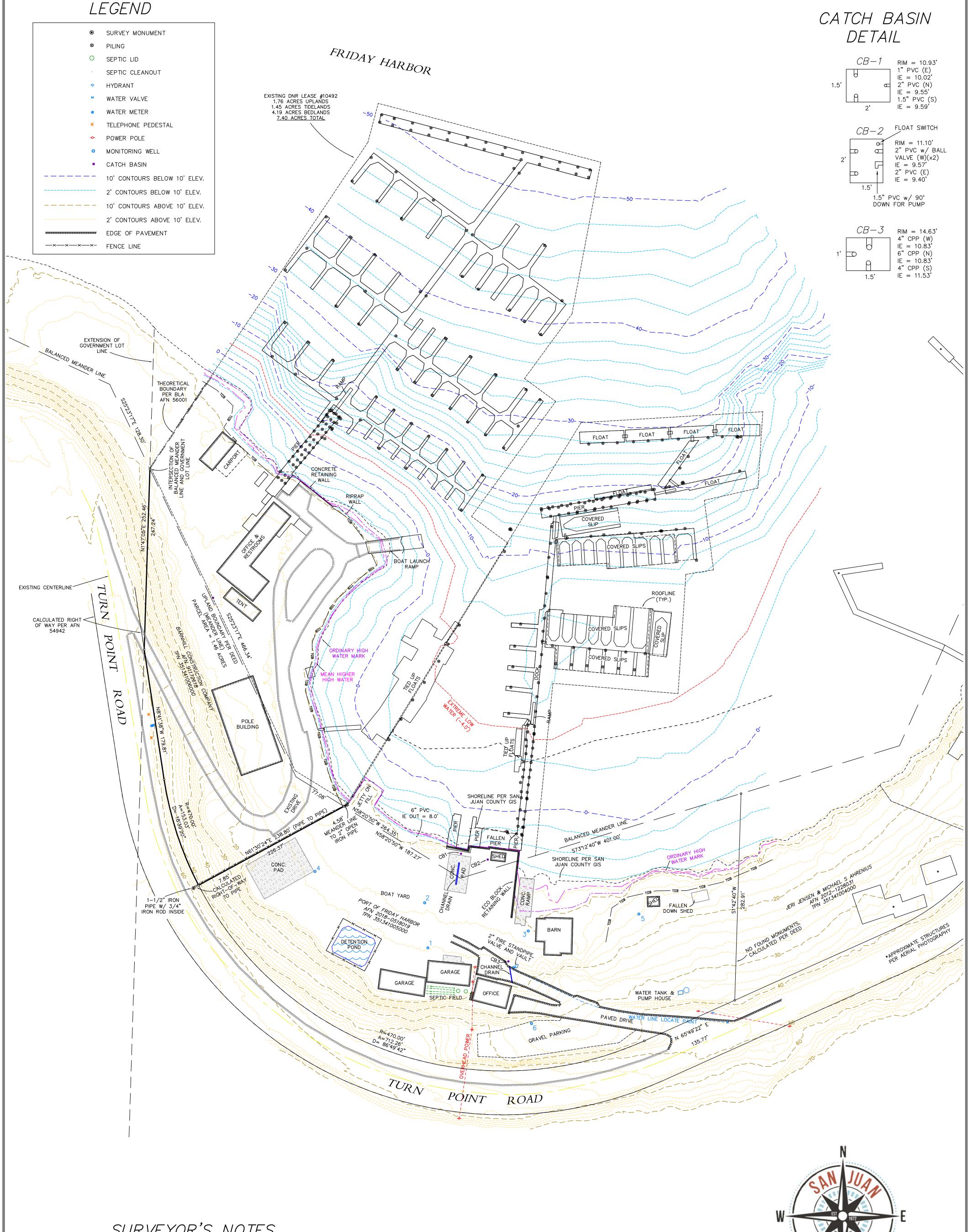


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Appendix B: Site Survey



SURVEYOR'S NOTES

1. THIS TOPOGRAPHIC SURVEY MEETS OR EXCEEDS THE REQUIREMENTS OF WAC 332-130-090.

2. THIS MAP REPRESENTS A TOPOGRAPHIC SURVEY WHICH LOCATED EXISTING MONUMENTS, STAKES AND PHYSICAL FEATURES. NO BOUNDARY MARKERS OR STAKES WERE SET. ALL PARTIES ARE HEREBY ADVISED THAT THIS MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY, AND IS EXEMPT FROM THE REQUIREMENTS FOR FILING UNDER THE PROVISIONS OF THE WASHINGTON STATE SURVEY RECORDING ACT PER RCW 58.09.090(1)(D)

3. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE WASHINGTON STATE PLANE COORDINATE SYSTEM — NORTH ZONE. ON—SITE STATIC OBSERVATIONS WERE POST PROCESSED USING THE LEICA PROPRIETARY SPIDERNET WITH THE BASE STATION BEING AT THE SAN JUAN SURVEYING, LLC OFFICE LOCATED IN FRIDAY HARBOR, WASHINGTON.

4. UPLAND CONTOURS (10'+) ARE PER PUGET SOUND LIDAR CONSORTIUM DATA (2009) AND HAVE A VERTICAL DATUM OF NAVDÁS (GEOID 2012B). TIDAL CONTOURS (8'-) ARE PER THIS SURVEY AND HAVE A VERTICAL DATUM OF MLLW = 0' WITH THE REFERENCE STATION BEING FRIDAY HARBOR TIDAL BENCHMARK 10.

EQUIPMENT AND PROCEDURES

EQUIPMENT: TOPCON ROBOTIC TOTAL STATION (PS103A) HIPER V GPS DUAL FREQUENCY GNSS RECEIVER W/ BASE STATION

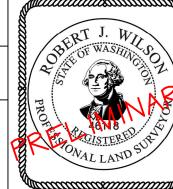
PROCEDURE: FIELD TRAVERSE

NORTH



	SCALE 1" =		
0 0	60	120	180
HORIZONTAL VERTICAL [DATUM: WSP DATUM: MLLW,	CS NAD83 (SEI /NAVD88 (SEE	E NOTE 3) NOTE 4)

PROPERTY II	VFORMATION	
SITE ADDRESS: 1293 TURN POINT ROAD	TAX PARCEL NUMBER: 351341005	
DESCRIPTION: JENSEN'S SHIPYARD PLANNING MAP	MISC:	
JENSEN S SHIPTARD PLANNING MAP		1



						VEF	RTICA
San Jua	n Su	JRVE	YING	TOPO	GRAPHIC SUI	RVEY	
FRIDAY	P.O. BOX 611 HARBOR, WA 360.378.2300 JANSURV	98250	M		FRIDAY		
SECTION	INDEXIN	G DATA		FI	RIDAY HARBO)R	
QUARTER / QUARTER	SECTION 17	TOWNSHIP	RANGE Z	DRAWN BY: RJW	COMP REF: 18-067 (TOPO)	JOB NO: 18-067	
GL 6			5	CHECKED BY:	DATE:	SHEET	1

11/14/19

1 OF 1

PORT OF FRIDAY **HARBOR**

PO BOX 889

FRIDAY HARBOR, WA 98250

Appendix C: Site Photos



Photo 1. Concrete boat ramp at northwest portion of study area, facing north.



Photo 2. Shoreline at northwest portion of study area, facing west.



Photo 3. Shoreline at the northeast portion of study area, facing northeast.



Photo 4. Harbor view from shoreline, facing north.



Photo 5. Boat building and upper intertidal area, facing south.



Photo 6. Boat building, facing west-southwest.

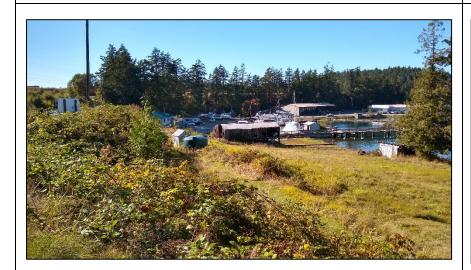


Photo 7. From southeast corner of Parcel 351341005000, facing west. An excavated trench or remains of a former farm pond is located under the blackberries at the center of photo.



Photo 8. From southeast of Parcel 351341005000, facing northwest. Recently mown portion is on the adjacent parcel to the east of the project site.



Photo 9. Excavated ditch on adjacent parcel to the east, facing southeast.



Photo 10. A corrugated plastic pipe drains to the upper end of the ditch on the adjacent property. The pipe may drain from the base of the retaining wall upslope of the residence on that property.



Photo 11. Trees mapped along the shoreline of Parcel 351341005000, facing northwest.



Photo 12. Vessel debris in the upper intertidal zone along the shoreline.

Appendix D: Wetland Determination Data Forms

Project Site:	Jensen's Shipya	<u>ard</u>					City/Coun	ty:	/San Jua	<u>n</u>	Sampling	Date:	9/28	3/2020	<u>)</u>
Applicant/Owner:	Port of Friday H	larbor_							Stat	te: WA	Sampling	Point:	<u>P1</u>		
Investigator(s):	M. Harenda, A.	Wones						Se	ection, Tow	nship, Rang	je: <u>S13, 3</u>	5N, 3W			
Landform (hillslope, te	rrace, etc.): <u>h</u>	<u>illslope</u>				Loca	al relief (conca	ve, conve	ex, none):	none		Slop	e (%):	<1	
Subregion (LRR):	MLRA2		Lat:	48.52	5363°	N		Long:	122.9983	75° W		Datum:	WGS		
Soil Map Unit Name:	Mitchellbay-Ro	ock Outcrop-Kille	ebrew cor	mplex	, 3 to 1	5 perc	ent slopes			NWI class	sification:	<u>NA</u>			
Are climatic / hydrolog	ic conditions on t	the site typical fo	r this time	e of ye	ear?	Υ	′es ⊠	No	☐ (If n	no, explain in	n Remarks.)			
Are Vegetation ☐,	Soil ⊠,	or Hydrology	□, sig	gnifica	ntly dis	sturbed	d? Are "I	Normal Ci	rcumstance	es" present?		Yes	\boxtimes	No	
Are Vegetation ,	Soil □,	or Hydrology	□, na	turally	/ proble	ematic	? (If ne	eded, exp	lain any an	swers in Re	marks.)				
SUMMARY OF FIN	DINGS - Atta	ch site map s	howing	sam	pling	point	locations,	transec	ts, impor	tant featur	res, etc.				
Hydrophytic Vegetation	n Present?		Yes		No	\boxtimes									
Hydric Soil Present?			Yes		No	\boxtimes	Is the Samp within a We					Yes		No	
Wetland Hydrology Pro	esent?		Yes		No	\boxtimes									
Remarks: At slope	break below roa	nd prism.													
VEGETATION - Us	e scientific na	mes of plants	5												
Tree Stratum (Plot size	ze: <u>20ft dm</u>)		Absolu <u>% Cov</u>		Domi Speci		Indicator <u>Status</u>	Domina	ance Test \	Worksheet:					
1			70 COV	<u>CI</u>	Оресі	<u> </u>	Otatus	Number	r of Domina	ant Species					
2.								That Ar	e OBL, FA	CW, or FAC:	:	<u>1</u>			(A)
3.								Total No	umber of D	ominant					
4.									Across All			<u>2</u>			(B)
50% =, 20% =	:				= Tota	al Cov	er	Percent	t of Domina	ant Species					
Sapling/Shrub Stratu	m (Plot size: <u>10ft</u>	<u>dm</u>)								CW, or FAC:	:	<u>50</u>			(A/B)
1. <u>Photinia</u>			<u>50</u>		<u>ves</u>		<u>UPL</u>	Prevale	ence Index	worksheet	:				
2. Rubus ursinus			<u>5</u>		<u>no</u>		<u>FACU</u>		Total	% Cover of:		Multi	ply by:	-	
3.								OBL sp	ecies			x1 =			
4								FACW :	species			x2 =			
5								FAC sp	ecies			x3 =			
50% = <u>27.5</u> , 20% = <u>1</u>	<u>1</u>		<u>55</u>		= Tota	al Cov	er	FACU s	species			x4 =			
Herb Stratum (Plot si	ze: 6ft dm)							UPL sp	ecies			x5 =			
Phalaris arundina	·		100		yes		FACW	Column	Totals:	·	(A)			(В)
2.			_					Oolulliii	i rotais.	Prevalence		/A =			,
3.								Hydron	hytic Vea	etation Indi			•		
4.										est for Hydro		etation			
5									-	ce Test is >5	-				
6.								_		ce Index is <					
7.										_	='				
8.										gical Adapta emarks or or			orting		
9.								□ 5		Non-Vascula		,			
10								_				al /Evalain	`		
									robiematic	Hydrophytic	vegetation	ı. (Exbiaiu)		
11 50% = <u>50,</u> 20% = <u>20</u>			100		- Tot	al Cov				ic soil and w			st		
Woody Vine Stratum	(Plot size:	`	100		- 100	ai Cov	CI	be pres	ent, unless	disturbed o	r problema	tic.			
1	(I lot size	_/													
2								Hydrop	hytic						
50% =, 20% =					- Tot	al Cov		Vegeta	-	Υ	'es		No	o	\boxtimes
					- 100	ai Cov	ei	Presen	t?						
% Bare Ground in He	erb Stratum	<u> </u>													
Remarks:															

IL											Point: P1				
rofile Desc	ription: (Describe	to the c	depth ne	eded to d	locument f	he indicator	r or confir	m the absenc	e of indicat	tors.)					
Depth	Matrix	i				Redox Featu	ures		_						
inches)	Color (moist)	%	<u> </u>	Color (mo	oist)	%	Type ¹	Loc ²	Texture	<u> </u>		Remarks	3		
<u>0-4</u>	10YR 3/2	<u>10</u>	0						loam	<u> </u>	_				
<u>4-14</u>	10YR 3/2	<u>10</u>	0						<u>gr sa l</u>	m concre	ete pieces				
											_				
											_				
		_	_								_				
			_								=				
		_	_								_				
		_	_								_				
Гуре: С= Со	oncentration, D=De	pletion,	RM=Rec	luced Mat	rix, CS=Co	vered or Coa	ated Sand	Grains. ² l	_ocation: PL	=Pore Lining,	M=Matrix				
ydric Soil I	Indicators: (Appli	cable to	all LRR	s, unless	otherwise	noted.)			Indi	cators for Pr	oblematic I	Hydric S	ioils³:		
] Histoso	ol (A1)				Sandy R	edox (S5)				2 cm Mucl	k (A10)				
] Histic E	Epipedon (A2)				Stripped	Matrix (S6)				Red Parer	nt Material (TF2)			
Black H	Histic (A3)				Loamy M	lucky Minera	al (F1) (exc	cept MLRA 1)		Very Shall	low Dark Su	rface (TI	F12)		
] Hydrog	gen Sulfide (A4)				Loamy C	Sleyed Matrix	(F2)			Other (Exp	olain in Rem	narks)			
Deplete	ed Below Dark Sur	face (A1	1)		Depleted	Matrix (F3)									
☐ Thick [Dark Surface (A12)	1			Redox D	ark Surface	(F6)								
Sandy	Mucky Mineral (S1	i)			Depleted	Dark Surfac	ce (F7)			icators of hyd					
Sandy	Gleyed Matrix (S4)			Redox D	epressions ((F8)			vetland hydrol ınless disturbe			ī,		
estrictive L	_ayer (if present):														
уре:															
								Hydric Soils	Present?		Yes		No	[
	s):							Tyuno cons							
Remarks:	υY							Tryuno cons							
Remarks: /DROLOG Vetland Hyd	sY drology Indicators							Tryuno cons							_
CPROLOG Vetland Hyd Primary Indic	sY drology Indicators cators (minimum of		uired; ch					Tryuno cons	Seco	ndary Indicato	•		ed)		
Primary Indic	drology Indicators ators (minimum of the Water (A1)		uired; ch	eck all tha	Water-St	ained Leave			Seco	Water-Staine	d Leaves (B	39)	ed)		
Primary Indic	drology Indicators cators (minimum of se Water (A1) Vater Table (A2)		uired; ch		Water-St	MLRA 1, 2, 4			Secon	Water-Staine	d Leaves (B	39)	ed)		
YDROLOG Vetland Hyd rimary Indic Surfac High V	drology Indicators eators (minimum of the Water (A1) Vater Table (A2) ation (A3)		uired; ch		Water-St (except Salt Crus	MLRA 1, 2, 4 st (B11)	4A, and 4E		Secoi	Water-Staine (MLRA 1, 2, 4) Drainage Pat	d Leaves (B 4A, and 4B) terns (B10)	39))	ed)		
TDROLOG Vetland Hyd rimary Indic Surfac High V Satura Water	drology Indicators ators (minimum of the Water (A1) Vater Table (A2) ation (A3) Marks (B1)		uired; ch		Water-St (except Salt Crus Aquatic I	MLRA 1, 2, 4 st (B11) nvertebrates	4A , and 4E		Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V	d Leaves (B 4A, and 4B) terns (B10) Water Table	(C2)	,		
DROLOG Vetland Hydrimary Indic	drology Indicators cators (minimum of the Water (A1) Vater Table (A2) ation (A3) Marks (B1) tent Deposits (B2)		uired; ch		Water-St (except Salt Crus Aquatic I Hydroge	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Ode	4A , and 4E s (B13) for (C1)	B)	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer	(C2) ial Image	,		
**Coronal Remarks: **Coro	drology Indicators cators (minimum of the Water (A1) Water Table (A2) ation (A3) Marks (B1) thent Deposits (B2) deposits (B3)		uired; ch		Water-St (except Salt Crus Aquatic I Hydroge Oxidized	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Ode Rhizosphere	4A , and 4E s (B13) for (C1) es along Li	B)	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2	(C2) ial Image	,		
Primary Indication of the Control of	drology Indicators cators (minimum of the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Atient Deposits (B2) Atient Deposits (B3) Mat or Crust (B4)		uired; ch		Water-St (except Salt Crus Aquatic I Hydroge Oxidized	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Ode	4A , and 4E s (B13) for (C1) es along Li	B)	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2	(C2) ial Image	,		
Primary Indication of the Control of	drology Indicators cators (minimum of the Water (A1) Water Table (A2) ation (A3) Marks (B1) thent Deposits (B2) deposits (B3)		uired; ch		Water-St (except Salt Crus Aquatic I Hydroge Oxidized Presence	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Ode Rhizosphere	4A, and 4E s (B13) for (C1) es along Li d Iron (C4)	B) iving Roots (C	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3)	(C2) ial Image	,		
/DROLOG Vetland Hyd Surfac High V Satura Water Sedim Drift D Iron D	drology Indicators cators (minimum of the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Atient Deposits (B2) Atient Deposits (B3) Mat or Crust (B4)	one requ	uired; ch		Water-St (except Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Ode Rhizosphere e of Reduced	s (B13) for (C1) es along Li d Iron (C4) on in Tilled	B) iving Roots (C	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5)	(C2) ial Image	ery (C9)		
/DROLOG Vetland Hyd Primary Indic Surfac High V Satura Sedim Drift D Algal N Iron D Surfac	drology Indicators ators (minimum of the Water (A1) Water Table (A2) ation (A3) Marks (B1) thent Deposits (B2) theposits (B3) Mat or Crust (B4) theposits (B5)	one requ			Water-St (except Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Ode Rhizosphere e of Reduced ron Reductio	4A, and 4E is (B13) or (C1) es along Li d Iron (C4) on in Tilled Plants (D1)	B) iving Roots (C	Secoi	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5)	(C2) ial Image	ery (C9)		
/DROLOG Vetland Hyd Primary Indic High V Satura Water Sedim Drift D Algal N Iron D Surfac	drology Indicators ators (minimum of the Water (A1) Vater Table (A2) ation (A3) Marks (B1) tent Deposits (B2) teposits (B3) Mat or Crust (B4) teposits (B5) the Soil Cracks (B6)	one requ	ery (B7)		Water-St (except Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Odd Rhizosphere e of Reduced ron Reductio or Stresses F	4A, and 4E is (B13) or (C1) es along Li d Iron (C4) on in Tilled Plants (D1)	B) iving Roots (C	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5)	(C2) ial Image	ery (C9)		
/DROLOG Vetland Hyd Primary Indic	drology Indicators cators (minimum of the Water (A1) Vater Table (A2) ation (A3) Marks (B1) thent Deposits (B2) theposits (B3) Mat or Crust (B4) theposits (B5) the Soil Cracks (B6) ation Visible on Aerely Vegetated Cone	one requ	ery (B7)		Water-St (except Salt Crus Aquatic I Hydroge Oxidized Presence Recent II	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Odd Rhizosphere e of Reduced ron Reductio or Stresses F	4A, and 4E is (B13) or (C1) es along Li d Iron (C4) on in Tilled Plants (D1)	B) iving Roots (C	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5)	(C2) ial Image	ery (C9)		
/DROLOG Vetland Hyd Primary Indic Surfac High V Satura Vater Sedim Iron D Surfac Iron D Surfac	drology Indicators cators (minimum of the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Ation (B3) Marks (B3) Mat or Crust (B4) Ation (B5) Ation (Cracks (B6) Ation Visible on Aerely Vegetated Considerations:	one requirial Imago	ery (B7) rface (B8		Water-Si (except Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Odd Rhizosphere e of Reduced ron Reductio or Stresses F	4A, and 4E is (B13) or (C1) es along Li d Iron (C4) on in Tilled Plants (D1)	B) iving Roots (C	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5)	(C2) ial Image	ery (C9)		
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Primary Indice Primary Indice Surface High V Satura Water Sedim Inon D Surface Inunda Sparse Field Observ Surface Water Water Table Saturation Princludes cap	drology Indicators ators (minimum of the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Ation (B3) Marks (B3) Mat or Crust (B4) Ation Visible on Aerely Vegetated Continuations: Are Present? Are Present?	rial Image cave Sur Yes Yes Yes	ery (B7) rface (B8	No 🖂	Water-St (except Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Odd Rhizosphere e of Reduced ron Reductio or Stresses F xxplain in Ren th (inches): th (inches):	4A, and 4E s (B13) or (C1) es along Li d Iron (C4) on in Tilled Plants (D1) marks)	iving Roots (C Soils (C6)) (LRR A)	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) dounds (D6) Hummocks	(C2) (C2) (ial Image () (LRR A)	, ery (C9)		
Primary Indication Primary Indication Print Description of the Court o	drology Indicators ators (minimum of the Water (A1)) Vater Table (A2) ation (A3) Marks (B1) Mathor Crust (B4) Mathor Crust (B4) Mathor Crust (B6) Mathor Cru	rial Image cave Sur Yes Yes Yes	ery (B7) rface (B8	No 🖂	Water-St (except Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted (Other (E	MLRA 1, 2, 4 st (B11) nvertebrates n Sulfide Odd Rhizosphere e of Reduced ron Reductio or Stresses F xxplain in Ren th (inches): th (inches):	4A, and 4E s (B13) or (C1) es along Li d Iron (C4) on in Tilled Plants (D1) marks)	iving Roots (C Soils (C6)) (LRR A)	Secon	Water-Staine (MLRA 1, 2, 4 Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M Frost-Heave	d Leaves (B 4A, and 4B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) dounds (D6) Hummocks	(C2) (C2) (ial Image () (LRR A)	, ery (C9)		

Project Site:	Jensen's Shipya	<u>ard</u>					City/Count	y: _	/San J	<u>luan</u>	Sampling	g Date:	9/28	3/2020	<u>)</u>
Applicant/Owner:	Port of Friday H	<u>larbor</u>							S	state: <u>WA</u>	Sampling	g Point:	<u>P2</u>		
Investigator(s):	M. Harenda, A.	Wones							Section, T	ownship, Ra	nge: <u>S13,</u>	35N, 3W			
Landform (hillslope, ter	race, etc.): <u>h</u>	<u>illslope</u>				Loca	al relief (conca	ive, co	nvex, none): <u>none</u>		Slope	(%):	<u>10</u>	
Subregion (LRR):	MLRA2		Lat:	48.52	5485° N	<u> </u>		Lor	ng: <u>122.99</u>	8415° W		Datum: <u>\</u>	<u>VGS</u>		
Soil Map Unit Name:	Mitchellbay-Ro	ock Outcrop-Kille	ebrew cor	nplex,	3 to 15	5 perc	ent slopes			NWI cla	ssification:	<u>NA</u>			
Are climatic / hydrologic	c conditions on t	the site typical fo	or this time	e of ye	ear?	Υ	es 🛛	No) [If no, explain	in Remark	s.)			
Are Vegetation \square ,	Soil ⊠,	or Hydrology	□, sig	ınifica	ntly dis	turbed	d? Are "N	Normal	Circumsta	nces" presen	t?	Yes	\boxtimes	No	
Are Vegetation \square ,	Soil □,	or Hydrology	□, na	turally	proble	matic	? (If nee	eded, e	explain any	answers in F	Remarks.)				
SUMMARY OF FINE	DINGS – Atta	ch site map s	howing	sam	pling	point	locations,	trans	ects, imp	ortant feat	ures, etc.				
Hydrophytic Vegetation	Present?		Yes		No	\boxtimes	Is the Samp	lad Ar	02						
Hydric Soil Present?			Yes		No	\boxtimes	within a Wet					Yes		No	
Wetland Hydrology Pre	sent?		Yes		No	\boxtimes									
Remarks:															
VEGETATION - Use	scientific na	mes of plants	s												
Tree Stratum (Plot size	e: <u>20ft dm</u>)		Absolu % Cov		Domir Specie		Indicator <u>Status</u>	Don	ninance Te	st Workshee	et:				
1								Num	ber of Dom	inant Specie	·S				(4)
2										FACW, or FA		<u>1</u>			(A)
3								Tota	l Number o	f Dominant		0			(D)
4								Spec	cies Across	All Strata:		<u>2</u>			(B)
50% =, 20% =					= Tota	al Cov	er	Perc	ent of Dom	inant Specie	s	E 0			(A /D)
Sapling/Shrub Stratum	<u>n</u> (Plot size: <u>10ft</u>	<u>: dm</u>)						That	Are OBL, F	FACW, or FA	C:	<u>50</u>			(A/B)
1								Prev	/alence Ind	lex workshe	et:				
2									Tot	tal % Cover o	of:	Multip	ly by:		
3								OBL	species		_	x1 =			
4								FAC	W species		_	x2 =	_		
5								FAC	species		_	x3 =			
50% =, 20% =					= Tota	al Cov	er	FAC	U species		_	x4 =			
Herb Stratum (Plot siz	e: <u>6ft dm</u>)							UPL	species		_	x5 =			
Schedonorus prate	<u>ensis</u>		<u>65</u>		yes		FACU	Colu	ımn Totals:		(A)			(В)
2. Holcus lanatus			20		yes		FAC			Prevalence		B/A =			
3. Plantago lanceolar	ta		10		no		FACU	Hvd	rophytic V	egetation In					
4. Equisetum arvens			3		no		FAC			Test for Hyd		getation			
5. Daucus carota	_		<u>2</u>		no		FACU		•	ance Test is		9			
6.			_							ence Index is					
7															
8										ological Adaļ Remarks or		rovide suppo ate sheet)	rting		
9										nd Non-Vasci	•	,			
10															
					_				Problema	tic Hydropny	tic vegetation	on¹ (Explain)			
11			400					¹ Indi	cators of hy	dric soil and	wetland hy	drology must	i		
50% = <u>50</u> , 20% = <u>20</u>	'Diet eize	`	<u>100</u>		= Tota	II Cov	er	be p	resent, unle	ess disturbed	or problem	atic.			
Woody Vine Stratum (Piot size:	_)													
1								Hvd	rophytic						
2								_	etation		Yes		No)	\boxtimes
50% =, 20% = _					= Tota	I Cov	er	_	sent?						
% Bare Ground in Her	b Stratum	_													
Remarks:															

inches)	Matrix				Redox Feat	iures						
2.0	Color (moist)	%	Colc	or (moist)) %	Type ¹ Loc ²	Texture		Re	emarks		
<u>0-6</u>	10YR 3/2	100	_				sa gr Im	<u> </u>				
<u>6-14</u>	10YR 3/2	<u>20</u>	_				gr sa Im	n mixed/dist	<u>turbed</u>			
<u>6-14</u>	10YR 3/4	<u>80</u>	_				gr sa Im	<u> </u>				
			_									
			_									
			_									
			_									
			_				· —					
	ncentration, D=Deple					ated Sand Grains.		Pore Lining, M=N				
_	ndicators: (Applicat	ole to all L		_	-			ators for Proble	-	dric So	oils³:	
Histoso					Sandy Redox (S5)			2 cm Muck (A1	•	·O\		
	pipedon (A2)				Stripped Matrix (S6)			Red Parent Ma	•	-	10)	
_	listic (A3)			_	-	ral (F1) (except MLRA	-	Very Shallow [12)	
_	en Sulfide (A4)	(411)			oamy Gleyed Matrix	• •		Other (Explain	in Remar	ks)		
-	ed Below Dark Surfac	æ (A11)		_	Depleted Matrix (F3)							
_	ark Surface (A12)			_	Redox Dark Surface	•	³ Indic	ators of hydroph	wtic veget	etion ar	nd	
_	Mucky Mineral (S1)				Depleted Dark Surfa	• •	We	etland hydrology	must be p	resent,		
	Gleyed Matrix (S4)			□ R	Redox Depressions	(F8)	un	lless disturbed of	r problema	atic.		
ype:	ayer (if present):											
ype. epth (inches						Hydric So.	ils Present?		Yes		No	Σ
						1 ,						
Remarks:	, <u>—</u>											
demarks: 'DROLOG Vetland Hyd	Y rology Indicators:											
'DROLOG Vetland Hyd	Y rology Indicators: ators (minimum of on	ie required	; check a					dary Indicators (2		-	d)	
PROLOG Vetland Hyd rrimary Indic Surfac	Y rology Indicators: ators (minimum of on e Water (A1)	ne required;	; check a	□ W	Vater-Stained Leave	• •		Vater-Stained Le	aves (B9)	-	d)	
YDROLOG Vetland Hyd Primary Indic Surfac High W	Y rology Indicators: ators (minimum of one water (A1) /ater Table (A2)	ne required	; check a	□ W (e	Vater-Stained Leave	• •		Vater-Stained Le	aves (B9) and 4B)	-	d)	
YDROLOG Wetland Hyd Irimary Indic Surfac High W	Y rology Indicators: ators (minimum of one Water (A1) /ater Table (A2) tion (A3)	ne required;		□ W (e	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11)	4A, and 4B)	V) D	Vater-Stained Le	eaves (B9) and 4B) s (B10)		d)	
YDROLOG Vetland Hyd rimary Indic Surface High W Satura Water	Y rology Indicators: ators (minimum of one water (A1) /ater Table (A2) tion (A3) Marks (B1)	ne required;		W (e	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates	4A , and 4B)	(I)	Water-Stained Le MLRA 1, 2, 4A, a Drainage Patterns Dry-Season Wate	eaves (B9) and 4B) s (B10) er Table (C	C2)		
DROLOG Vetland Hyd **rimary Indic**	rology Indicators: ators (minimum of on a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	ne required		W (e	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc	4A, and 4B) ss (B13) dor (C1)	V (I D D	Vater-Stained Le MLRA 1, 2, 4A, a Drainage Patterns Dry-Season Wate Saturation Visible	eaves (B9) and 4B) s (B10) er Table (C	C2)		
PROLOG Vetland Hyd Verimary Indic Surfac High W Satura Water Sedime	rology Indicators: ators (minimum of one Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	ne required		W (e S A	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Oxidized Rhizospher	4A, and 4B) as (B13) dor (C1) res along Living Roots	W (1) W (2) W (2	Vater-Stained Le MLRA 1, 2, 4A, a Drainage Patterns Dry-Season Wate Saturation Visible Geomorphic Posi	eaves (B9) and 4B) s (B10) er Table (Ce on Aerial tion (D2)	C2)		
VDROLOG Vetland Hyd rimary Indic Surfac High W Satura Water Sedime Drift De	rology Indicators: ators (minimum of one water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4)	ne required;		W (e S A H H O P	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Oxidized Rhizospher Presence of Reduce	4A, and 4B) ss (B13) dor (C1) res along Living Roots d Iron (C4)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a brainage Patterns bry-Season Wate baturation Visible Geomorphic Posi Shallow Aquitard	and 4B) s (B10) er Table (Ce on Aerial tion (D2) (D3)	C2)		
VDROLOG Vetland Hyd Vrimary Indic Surfac High W Satura Water Sedim Drift De	Y rology Indicators: ators (minimum of one water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5)	ne required;		W (e S A H H P P P	water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Dividized Rhizospher Presence of Reduce Recent Iron Reduction	4A, and 4B) ss (B13) dor (C1) res along Living Roots ed Iron (C4) on in Tilled Soils (C6)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a Orainage Patterns Ory-Season Wate Saturation Visible Geomorphic Posit Shallow Aquitard GAC-Neutral Test	and 4B) s (B10) er Table (C e on Aerial tion (D2) (D3) t (D5)	C2) Imager		
Primary Indic Surface High W Satura Water Sedime Drift De Algal N Iron De	rology Indicators: ators (minimum of one water (A1) vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B6)			W (e S S H D P R S S S S S S S S S	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Dxidized Rhizospher Presence of Reduce Recent Iron Reduction	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a Drainage Patterns Dry-Season Wate Saturation Visible Geomorphic Posi Shallow Aquitard FAC-Neutral Test Raised Ant Moun-	and 4B) s (B10) er Table (Ce on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager		
Commarks: **Commarks: **Commar	rology Indicators: ators (minimum of one Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial	I Imagery (E	37)	W (e S S C C C C C C C C	water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Dividized Rhizospher Presence of Reduce Recent Iron Reduction	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a Orainage Patterns Ory-Season Wate Saturation Visible Geomorphic Posit Shallow Aquitard GAC-Neutral Test	and 4B) s (B10) er Table (Ce on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager		
PROLOG Vetland Hyd rimary Indic Surfac High W Satura Water Sedime Drift De Algal N Iron De Surfac	rology Indicators: ators (minimum of one Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial	I Imagery (E	37)	W (e S S H D P R S S S S S S S S S	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Dxidized Rhizospher Presence of Reduce Recent Iron Reduction	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a Drainage Patterns Dry-Season Wate Saturation Visible Geomorphic Posi Shallow Aquitard FAC-Neutral Test Raised Ant Moun-	and 4B) s (B10) er Table (Ce on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager		
PROLOG Vetland Hyd Vetland Hyd Vetland High W Satura Water Sedime Drift De Surface Iron De Surface	rology Indicators: ators (minimum of one Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial ely Vegetated Concavations:	l Imagery (I	37) (B8)	W (e S A D A D C C C C C C C C C	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Dixidized Rhizospher Presence of Reduce Recent Iron Reduction Stunted or Stresses Other (Explain in Res	4A, and 4B) as (B13) dor (C1) res along Living Roots and Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) emarks)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a Drainage Patterns Dry-Season Wate Saturation Visible Geomorphic Posi Shallow Aquitard FAC-Neutral Test Raised Ant Moun-	and 4B) s (B10) er Table (Ce on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager		
VDROLOG Vetland Hyd Verlimary Indic Surface High W Satura Water Sedime Iron De Surface Inunda Sparse ield Observe	rology Indicators: ators (minimum of one water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial ely Vegetated Concav ations: r Present?	I Imagery (E ve Surface	B7) (B8) No	W (6 S C C C C C C C C C	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Dixidized Rhizospher Presence of Reduce Recent Iron Reduction Stunted or Stresses Other (Explain in Research	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) emarks)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a Drainage Patterns Dry-Season Wate Saturation Visible Geomorphic Posi Shallow Aquitard FAC-Neutral Test Raised Ant Moun-	and 4B) s (B10) er Table (Ce on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager		
POROLOG Vetland Hyd Vetland Hyd Vetland Hyd Vetland Hyd Vetland Hyd Vetland High W Satura Water Sedim Drift De Surface Inunda Sparse Vetland Observ Vetland Vetland	rology Indicators: ators (minimum of one Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial ely Vegetated Concavations: r Present? Ye	I Imagery (E ve Surface es	B7) (B8) No No	W (e (e S A A A A A A A A A	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Dividized Rhizospher Presence of Reduce Recent Iron Reductio Stunted or Stresses Other (Explain in Red Depth (inches): Depth (inches):	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) emarks)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a brainage Patterns Dry-Season Wate Secomorphic Positional Position Schallow Aquitard FAC-Neutral Test Raised Ant Mount Frost-Heave Hum	aves (B9) and 4B) s (B10) er Table (C e on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager .RR A)	y (C9)	
VDROLOG Vetland Hyd Verlimary Indic Surface High W Satura Water Sedime Iron De Surface Inunda Sparse ield Observe	rology Indicators: ators (minimum of one water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial ely Vegetated Concav ations: r Present? Ye esent? Ye	I Imagery (E ve Surface	B7) (B8) No	W (6 S C C C C C C C C C	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Dixidized Rhizospher Presence of Reduce Recent Iron Reduction Stunted or Stresses Other (Explain in Research	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) emarks)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a brainage Patterns Dry-Season Wate Secomorphic Positional Position Schallow Aquitard FAC-Neutral Test Raised Ant Mount Frost-Heave Hum	aves (B9) and 4B) s (B10) er Table (C e on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager		•
VDROLOG Vetland Hyd Verimary Indic Surface High W Satura Water Sedime Iron De Inunda Sparse Vetland Observe Surface Water Vater Table Inactudes cap	rology Indicators: ators (minimum of one water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial ely Vegetated Concav ations: r Present? Ye esent? Illary fringe)	I Imagery (Eve Surface	B7) (B8) No No No	W (6 S C S C C C C C C C	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates dydrogen Sulfide Oc Dxidized Rhizospher Presence of Reduce Recent Iron Reductic Stunted or Stresses Other (Explain in Rei Depth (inches): Depth (inches):	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) emarks)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a brainage Patterns Dry-Season Wate Secomorphic Positional Position Schallow Aquitard FAC-Neutral Test Raised Ant Mount Frost-Heave Hum	aves (B9) and 4B) s (B10) er Table (C e on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager .RR A)	y (C9)	0
VDROLOG Vetland Hyd Verimary Indic Surface High W Satura Water Sedime Iron De Inunda Sparse Vetland Observe Surface Water Vater Table Inactudes cap	rology Indicators: ators (minimum of one water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial ely Vegetated Concav ations: r Present? Ye esent? Illary fringe)	I Imagery (Eve Surface	B7) (B8) No No No	W (6 S C S C C C C C C C	Water-Stained Leave except MLRA 1, 2, Salt Crust (B11) Aquatic Invertebrates dydrogen Sulfide Oc Dxidized Rhizospher Presence of Reduce Recent Iron Reductic Stunted or Stresses Other (Explain in Rei Depth (inches): Depth (inches):	4A, and 4B) as (B13) dor (C1) res along Living Roots ad Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) emarks)	(C3)	Vater-Stained Le MLRA 1, 2, 4A, a brainage Patterns Dry-Season Wate Secomorphic Positional Position Schallow Aquitard FAC-Neutral Test Raised Ant Mount Frost-Heave Hum	aves (B9) and 4B) s (B10) er Table (C e on Aerial tion (D2) (D3) s (D5) ds (D6) (L	C2) Imager .RR A)	y (C9)	0

Project Site:	Jensen's Shipya	<u>ard</u>					City/Count	y: _	/San 、	<u>Juan</u>	Sampling	g Date:	9/28	3/2020	<u>)</u>
Applicant/Owner:	Port of Friday H	<u>larbor</u>							8	State: <u>WA</u>	Sampling	g Point:	<u>P3</u>		
Investigator(s):	M. Harenda, A.	Wones							Section, T	Township, Ra	nge: <u>S13,</u>	35N, 3W			
Landform (hillslope, terr	race, etc.): <u>h</u>	<u>illslope</u>				Loca	al relief (conca	ve, co	nvex, none	e): <u>none</u>		Slope	(%):	<u>15</u>	
Subregion (LRR):	MLRA2		Lat:	48.52	5545° I	N		Lor	ng: <u>122.99</u>	98142° W		Datum: \(\)	<u>VGS</u>		
Soil Map Unit Name:	Mitchellbay-Ro	ock Outcrop-Kill	ebrew cor	nplex,	3 to 1	5 perc	ent slopes			NWI cla	assification:	<u>NA</u>			
Are climatic / hydrologic	c conditions on t	the site typical fo	or this time	e of ye	ear?	Υ	es 🛛	No) ((If no, explair	n in Remark	s.)			
Are Vegetation \square ,	Soil □,	or Hydrology	□, sig	ınifica	ntly dis	turbed	d? Are "N	Iormal	l Circumsta	nces" preser	nt?	Yes	\boxtimes	No	
Are Vegetation \square ,	Soil □,	or Hydrology	□, na	turally	proble	ematic	? (If nee	eded, e	explain any	answers in F	Remarks.)				
SUMMARY OF FINE	DINGS – Atta	ch site map s	howing	sam	pling	point	locations,	trans	ects, imp	ortant feat	tures, etc.	1			
Hydrophytic Vegetation	Present?		Yes		No	\boxtimes	Is the Sample	ad Ar							
Hydric Soil Present?			Yes		No	\boxtimes	within a Wet					Yes		No	
Wetland Hydrology Pre	sent?		Yes		No	\boxtimes									
Remarks:															
VEGETATION - Use	scientific na	mes of plant	s												
Tree Stratum (Plot size	e: <u>20ft dm</u>)		Absolu % Cov		Domir Specie		Indicator <u>Status</u>	Dom	ninance Te	st Workshe	et:				
1				_				Num	ber of Dom	ninant Specie	es				(*)
2										FACW, or FA		<u>1</u>			(A)
3								Tota	l Number o	of Dominant					(5)
4										All Strata:		<u>2</u>			(B)
50% =, 20% = _					= Tota	al Cov	er	Perc	ent of Dom	ninant Specie	:S	50			(A (D)
Sapling/Shrub Stratum	<u>n</u> (Plot size: <u>10ft</u>	<u>dm</u>)								FACW, or FA		<u>50</u>			(A/B)
1								Prev	/alence Inc	dex workshe	et:				
2									<u>To</u>	tal % Cover	of:	Multip	ly by:		
3								OBL	. species		_	x1 =			
4								FAC	W species		_	x2 =			
5								FAC	species		_	x3 =			
50% =, 20% = _					= Tota	al Cov	er	FAC	U species		_	x4 =			
Herb Stratum (Plot siz	e: <u>6ft dm</u>)							UPL	species			x5 =	_		
Schedonorus prate	ensis		<u>25</u>		yes		FACU	Colu	ımn Totals:		(A)			(В)
2. Holcus lanatus			<u>15</u>		no		FAC	Cold	iiiii rotalo.			B/A =			,
3. Poa pratensis			30		yes		FAC	Hvd	rophytic V	egetation In					
Equisetum arvense	e		10		no		FAC			Test for Hyd		egetation			
5. <u>Trifolium repens</u>	_		10		no		FAC			ance Test is		9			
6. Bromus sp.			10		no		FACU								
7.			<u>10</u>		110		17100]		lence Index is	_				
8										iological Ada i Remarks or		rovide suppo ate sheet)	rting		
9										nd Non-Vasc	•	,			
10															
					_				Problema	itic Hyaropny	tic vegetati	on¹ (Explain)			
11			400					¹ Indi	icators of h	ydric soil and	l wetland hy	drology must			
50% = 50, 20% = 20	Diet eizer	\	<u>100</u>		= Tota	ai Covi	er	be p	resent, unle	ess disturbed	d or problem	natic.			
Woody Vine Stratum (Plot Size:	_)													
1								Hvd	rophytic						
2								-	etation		Yes		No)	\boxtimes
50% =, 20% = _					= Tota	ai Cov	er	_	sent?						
% Bare Ground in Her	b Stratum	=													
Remarks:															

DIL											Sampling	g Point: P3				
Profile Descript	ion: (Describe t	o the dep	th needed	to do	cument the	e indicator	r or con	firm the abs	ence of in	dicato	ors.)					
Depth	Matrix				R	edox Featu	ures									
(inches)	Color (moist)	%	Colo	r (mois	st)	%	Type ¹	Loc ²	Te	exture			Rema	arks		
<u>0-9</u>	10YR 3/2	100								r sa In	n som	e cobbles				
<u>9-14</u>	10YR 3/4	<u>100</u>	_		_				. ,	sa Im	. <u> </u>	_				
			_		_							_				
			_		_							_				
			_		_							_				
			_		_							_				
			_		_				= -		. <u>—</u>	_				
			_		_				= -		. <u>—</u>	_				
Гуре: C= Conce	entration, D=Depl	etion, RM	=Reduced	Matrix	x, CS=Cove	red or Coa	ated San	d Grains.	² Location	n: PL=	Pore Lining	g, M=Matrix				
lydric Soil Indi	cators: (Applica	ble to all	LRRs, un	less o	therwise n	oted.)				Indic	ators for F	Problemati	c Hydri	c So	ils³:	
] Histosol (A	.1)		1		Sandy Rec	lox (S5)					2 cm Mu	ck (A10)				
] Histic Epip	edon (A2)		I		Stripped M	atrix (S6)					Red Pare	ent Materia	(TF2)			
Black Histi	c (A3)				Loamy Mu	cky Minera	al (F1) (e :	xcept MLRA	. 1)		Very Sha	allow Dark S	Surface	(TF	12)	
] Hydrogen	Sulfide (A4)		1		Loamy Gle	yed Matrix	(F2)				Other (E	xplain in Re	emarks))		
Depleted E	Below Dark Surfa	ce (A11)	ŀ		Depleted N	/latrix (F3)										
Thick Dark	Surface (A12)		ŀ		Redox Dar	k Surface	(F6)									
☐ Sandy Mud	cky Mineral (S1)		ļ		Depleted D	ark Surfac	ce (F7)				cators of hy etland hydr					
] Sandy Gle	yed Matrix (S4)				Redox Dep	ressions (F8)				nless distur					
estrictive Laye	er (if present):															
уре:																
epth (inches):								Hydric Sc	ils Presen	it?		Yes			No	
								Tiyane de								
Remarks:								Tiyane Se								
Remarks:	ogy Indicators:							Tryunc 30								
Remarks: /DROLOGY Vetland Hydrol	ogy Indicators: 's (minimum of o	ne require	d; check a	II that a	apply)			Tiyane 30		Secon	dary Indica				d)	
Primary Indicator	s (minimum of o	ne require		ıll that ≀	apply) Water-Stai	ned Leave	es (B9)	Tryunc 30			dary Indica Water-Stain	tors (2 or m	ore req		1)	
PROLOGY Vetland Hydrol rimary Indicator □ Surface W	s (minimum of o	ne require								_ \		tors (2 or m	ore req		1)	
EMARKS: DROLOGY Vetland Hydrol rimary Indicator Surface W High Wate	rs (minimum of or later (A1) er Table (A2)	ne require			Water-Stai	LRA 1, 2, 4				□ \	Nater-Stain	tors (2 or m ed Leaves , 4A , and 4	ore req (B9)		1)	
EMARKS: FOROLOGY Fetland Hydroling Finary Indicator Surface W High Wate Saturation	rs (minimum of or later (A1) er Table (A2) (A3)	ne require			Water-Stai	LRA 1, 2, 4 (B11)	4A, and]))]	Water-Stain	tors (2 or med Leaves , 4A, and 4 atterns (B10	ore req (B9) B)		i)	
POROLOGY Vetland Hydrolorimary Indicator Surface W High Wate Saturation Water Mai	rs (minimum of or later (A1) er Table (A2) (A3)	ne require			Water-Stai (except M	LRA 1, 2, 4 (B11) vertebrates	4A , and]]]) (Water-Stain MLRA 1, 2 Drainage Pa	tors (2 or med Leaves , 4A, and 4 atterns (B10 Water Tab	ore req (B9) B) D)	uired	•	
TOROLOGY Vetland Hydrolorimary Indicator Surface W High Wate Saturation Water Mai	rs (minimum of or later (A1) rr Table (A2) (A3) rks (B1) Deposits (B2)	ne require			Water-Stai (except MI Salt Crust Aquatic Inv Hydrogen S	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd	4A , and (6) (B13) or (C1)]]]) 1 1 2 1 3	Water-Stain MLRA 1, 2 Drainage Pa Dry-Season	tors (2 or m ed Leaves , 4A, and 4 atterns (B10 Water Tab /isible on A	ore req (B9) B) D) erial Im	uired	•	
TOROLOGY Vetland Hydrol rimary Indicator Surface W High Water Saturation Water Mai Sediment Drift Depo	rs (minimum of or later (A1) rr Table (A2) (A3) rks (B1) Deposits (B2)	ne require			Water-Stai (except MI Salt Crust Aquatic Inv Hydrogen S	LRA 1, 2, 4 (B11) vertebrates Sulfide Ode Rhizosphere	4A, and (B13) or (C1) es along	4B) Living Roots	[[[[[(C3)]) 1 1 2 2 3 4 4	Vater-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V	tors (2 or med Leaves, 4A, and 4 atterns (B1) Water Tab	ore req (B9) B) D) erial Im	uired	•	
VDROLOGY Vetland Hydrol- rimary Indicator Surface W High Water Saturation Water Mar Sediment Drift Depo	(ater (A1) er Table (A2) (A3) eks (B1) Deposits (B2) sits (B3) or Crust (B4)	ne require			Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced	4A, and (6 (B13) or (C1) es along d Iron (C4	4B) Living Roots	[Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic	tors (2 or m ed Leaves , 4A, and 4 atterns (B10 Water Tab /isible on A c Position (I	ore req (B9) B) D) erial Im	uired	•	
VDROLOGY Vetland Hydrology Surface W High Water Saturation Water Mai Sediment Drift Depo Algal Mat	(ater (A1) er Table (A2) (A3) eks (B1) Deposits (B2) sits (B3) or Crust (B4)	ne require			Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron	LRA 1, 2, 4 (B11) vertebrates Sulfide Ode Rhizosphere of Reduced n Reductio	(B13) or (C1) es along d Iron (C4) on in Tille	4B) Living Roots	[Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Table) (isible on A constitution (I building (D3)) at Test (D5)	ore req (B9) B) D) ole (C2) erial Im	uired	•	
POROLOGY Vetland Hydrologrimary Indicator Surface W High Water Saturation Water Mar Sediment Drift Depo	rs (minimum of or later (A1) r Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5)				Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced n Reductio Stresses F	4A, and (B13) or (C1) es along d Iron (C4) in Tille Plants (D	4B) Living Roots 4) d Soils (C6)	[Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Tab /isible on A c Position (I uitard (D3) Il Test (D5) Mounds (D	ore req (B9) B) O) ole (C2) erial Im O2)	uired	•	
TOROLOGY Vetland Hydrology irimary Indicator Surface W High Water Mai Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depoi	rs (minimum of or later (A1) r Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) poil Cracks (B6)	I Imagery	(B7)		Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced n Reductio Stresses F	4A, and (B13) or (C1) es along d Iron (C4) in Tille Plants (D	4B) Living Roots 4) d Soils (C6)	[Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Tab /isible on A c Position (I uitard (D3) Il Test (D5) Mounds (D	ore req (B9) B) O) ole (C2) erial Im O2)	uired	•	
PROLOGY Vetland Hydrol Primary Indicator Surface W High Water Man Sediment Drift Depo Algal Mat Iron Depos Surface S Inundation Sparsely \	rs (minimum of or later (A1) rr Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) visible on Aeria /egetated Conca	I Imagery	(B7)		Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced n Reductio Stresses F	4A, and (B13) or (C1) es along d Iron (C4) in Tille Plants (D	4B) Living Roots 4) d Soils (C6)	[Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Tab /isible on A c Position (I uitard (D3) Il Test (D5) Mounds (D	ore req (B9) B) O) ole (C2) erial Im O2)	uired	•	
VDROLOGY Vetland Hydrol- rrimary Indicator Surface W High Water Saturation Water Man Sediment Drift Depo Algal Mat Iron Depo: Surface Si Inundation Sparsely V ield Observation	rs (minimum of or later (A1) rater (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) visible on Aeria legetated Conca	I Imagery ve Surface	(B7)		Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen: Oxidized R Presence of Recent Iron Stunted or Other (Exp	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced n Reductio Stresses F	4A, and (B13) or (C1) es along d Iron (C4) in Tille Plants (D	4B) Living Roots 4) d Soils (C6)	[Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Tab /isible on A c Position (I uitard (D3) Il Test (D5) Mounds (D	ore req (B9) B) O) ole (C2) erial Im O2)	uired	•	
VDROLOGY Vetland Hydrology Vetland Hydrology Primary Indicator Surface W High Water Saturation Water Man Sediment Drift Depo Algal Mat Iron Depoi Surface So Inundation Sparsely V ield Observation	rs (minimum of or rater (A1) r Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) r Visible on Aeria regetated Conca	Il Imagery ve Surface	(B7) e (B8)		Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced In Reductio Stresses Folain in Ren (inches):	4A, and (B13) or (C1) es along d Iron (C4) in Tille Plants (D	4B) Living Roots 4) d Soils (C6)	[Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Tab /isible on A c Position (I uitard (D3) Il Test (D5) Mounds (D	ore req (B9) B) O) ole (C2) erial Im O2)	uired	•	
Primary Indicator Surface W High Water Mar Sediment Drift Depo Algal Mat Iron Depos Inundation Sparsely V Field Observation Surface Water Prese	rs (minimum of or later (A1) rater (A1) rater (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) bil Cracks (B6) rate (B6) resent? resent? Ve	Il Imagery ve Surface	(B7) se (B8) No		Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen 3 Oxidized R Presence of Recent Iron Stunted or Other (Exp	LRA 1, 2, 4 (B11) vertebrates Sulfide Ode Rhizosphere of Reduced n Reductio Stresses F olain in Ren	4A, and (B13) or (C1) es along d Iron (C4) in Tille Plants (D	4B) Living Roots 4) d Soils (C6)	[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Taber) (isible on A constitution (D3) al Test (D5) Mounds (De Hummock	ore req (B9) B) O) ole (C2) erial Im O2)	ager	y (C9)	lo
YDROLOGY Wetland Hydrology Wetland Hydrology Primary Indicator Surface W High Water Saturation Water Man Sediment Drift Depo Algal Mat Iron Depo: Surface Sediment Sparsely Water Processing Company Water Table Present Company Saturation Present Comp	rs (minimum of or later (A1) rater (A1) rater (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) bil Cracks (B6) rate (B6) resent? resent? Ve	Il Imagery ve Surface es es es es es	(B7) se (B8) No No No		Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or Other (Exp Depth Depth	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced In Reductio Stresses Folain in Ren (inches): (inches):	4A, and s (B13) or (C1) es along d Iron (Con in Tille Plants (D marks)	4B) Living Roots 4) d Soils (C6) 01) (LRR A)	[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant Frost-Heave	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Taber) (isible on A constitution (D3) al Test (D5) Mounds (De Hummock	ore req (B9) B) O) erial Im O2)	ager	y (C9)	
Primary Indicator Surface W High Water Saturation Water Man Sediment Drift Depo Algal Mat Iron Depo: Surface Sourface Water Power Seaturation Prese	rs (minimum of or later (A1) r Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) bil Cracks (B6) l Visible on Aeria legetated Conca cons: resent? resent? ye y fringe)	Il Imagery ve Surface es es es es es	(B7) se (B8) No No No		Water-Stai (except Mi Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or Other (Exp Depth Depth	LRA 1, 2, 4 (B11) vertebrates Sulfide Odd Rhizosphere of Reduced In Reductio Stresses Folain in Ren (inches): (inches):	4A, and s (B13) or (C1) es along d Iron (Con in Tille Plants (D marks)	4B) Living Roots 4) d Soils (C6) 01) (LRR A)	[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Water-Stain MLRA 1, 2 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant Frost-Heave	tors (2 or med Leaves, 4A, and 4 atterns (B10 Water Taber) (isible on A constitution (D3) al Test (D5) Mounds (De Hummock	ore req (B9) B) O) erial Im O2)	ager	y (C9)	

Project Site:	Jensen's Shipyard			City/Count	ty: <u>/San Juan</u>	Sampling	Date:	9/28/202	0
Applicant/Owner:	Port of Friday Harbor				State:	<u>WA</u> Sampling	Point:	<u>P4</u>	
Investigator(s):	M. Harenda, A. Wones				Section, Townsl	nip, Range: <u>S13, 3</u>	5N, 3W		
Landform (hillslope, te	rrace, etc.): <u>hillslope</u>		Loc	al relief (conca	ave, convex, none): r	none	Slope (9	%): <u>15</u>	
Subregion (LRR):	MLRA2	Lat: <u>48.5</u> 2	25702° N		Long: <u>122.997892°</u>	W	Datum: WO	<u>3S</u>	
Soil Map Unit Name:	Mitchellbay-Rock Outcrop	-Killebrew complex	x, 3 to 15 per	cent slopes	1	NWI classification:	<u>NA</u>		
Are climatic / hydrolog	ic conditions on the site typic	cal for this time of y	rear?	∕es ⊠	No 🗌 (If no,	explain in Remarks.	.)		
Are Vegetation ☐,	Soil □, or Hydrolo	gy 🔲, signific	antly disturbe	d? Are "N	Normal Circumstances"	present?	Yes [⊠ No	
Are Vegetation ☐,	Soil □, or Hydrolo	gy □, naturall	y problematio	? (If nee	eded, explain any answ	ers in Remarks.)			
SUMMARY OF FIN	IDINGS - Attach site ma	ap showing san	npling poin	t locations,	transects, importar	nt features, etc.			
Hydrophytic Vegetation	n Present?	Yes 🛚	No 🗌						
Hydric Soil Present?		Yes 🗌	No 🛛	Is the Samp within a We			Yes [No	
Wetland Hydrology Pro	esent?	Yes 🗌	No 🛛						
Remarks: Flat spot	where water from the ups	ope ditch dischar	ges. Ditch c	arries road ru	noff from Turn Point F	Rd and water from	an 6" CPP dr	ain from	n the
adjacent	property to the east.								
VEGETATION - Us	e scientific names of pl	ants							
Tree Stratum (Plot size	ze: <u>20ft dm</u>)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test Wo	rksheet:			
1		<u>70 GGVC1</u>	Орсоюз:	<u>Otatus</u>	Number of Dominant	Species			
2.				<u> </u>	That Are OBL, FACW		<u>3</u>		(A)
3					Total Number of Dom	inant			
4					Species Across All St		<u>3</u>		(B)
50% =, 20% =	·		= Total Cov	er er	Percent of Dominant	Species			
Sapling/Shrub Stratu	m (Plot size: 10ft dm)				That Are OBL, FACW		<u>100</u>		(A/B)
1					Prevalence Index wo	orksheet:			
2					Total %	Cover of:	Multiply	by:	
3					OBL species		x1 =		
4					FACW species		x2 =		
5					FAC species		x3 =		
50% =, 20% =			= Total Cov	er er	FACU species		x4 =		
Herb Stratum (Plot si	ze: <u>6ft dm</u>)				UPL species		x5 =		
Phalaris arundina	acea	<u>60</u>	<u>yes</u>	FACW	Column Totals:	(A)			(B)
2. Equisetum arvens	se	<u>20</u>	yes	FAC		evalence Index = B	/A =		,
Juncus effusus	<u></u>	20	yes	FACW	Hydrophytic Vegeta				
4.					☐ 1 – Rapid Test		etation		
5.					2 - Dominance	, , , ,			
6.					□ 3 - Prevalence I				
7.						-	avida avananti		
8.					, , , , , , , , , , , , , , , , , , ,	al Adaptations¹ (Pro arks or on a separat		ng	
9.					5 - Wetland Nor	n-Vascular Plants ¹	•		
10.							n1 (Eveloin)		
11.					Problematic Hy	drophytic Vegetatio	ı (Expiairi)		
50% = <u>50</u> , 20% = <u>20</u>		100	= Total Cov		¹ Indicators of hydric s	oil and wetland hyd	rology must		
Woody Vine Stratum	(Plot size:)	<u>100</u>	- Total Cov	CI	be present, unless dis	sturbed or problema	itic.		
1.	(1 lot size)								
2.					Hydrophytic				
50% =, 20% =			- Total Cav		Vegetation	Yes	\boxtimes	No	
			= Total Cov	· C I	Present?				
% Bare Ground in He	erb Stratum								
Remarks:									

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	e Lining, M=Matrix rs for Problematic Hydric Soils³: cm Muck (A10) led Parent Material (TF2) lery Shallow Dark Surface (TF12)
4-12	rs for Problematic Hydric Soils ³ : cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
12-16	rs for Problematic Hydric Soils ³ : cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Coation: PL=Pon Indicators Indicators	rs for Problematic Hydric Soils ³ : cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
Cype: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains. 2Location: PL=Porversion 2 3 3 3 3 3 3 3 3 3	rs for Problematic Hydric Soils ³ : cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
pydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators: (Applicable to all LRRs, unless otherwise noted.) I Histosol (A1)	rs for Problematic Hydric Soils ³ : cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
Addric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	rs for Problematic Hydric Soils ³ : cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
provider Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	rs for Problematic Hydric Soils ³ : cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
Addric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	rs for Problematic Hydric Soils³: cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
Ardric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	rs for Problematic Hydric Soils³: cm Muck (A10) ded Parent Material (TF2) ery Shallow Dark Surface (TF12)
Histosol (A1)	cm Muck (A10) led Parent Material (TF2) ery Shallow Dark Surface (TF12)
Histic Epipedon (A2)	ed Parent Material (TF2) ery Shallow Dark Surface (TF12)
Black Histic (A3)	ery Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	
Depleted Below Dark Surface (A11)	
Thick Dark Surface (A12)	ther (Explain in Remarks)
Sandy Mucky Mineral (S1)	
Sandy Gleyed Matrix (S4)	
Strictive Layer (if present): pe: pth (inches): This is a flat spot where water from the upslope ditch disperses. PROLOGY Strand Hydrology Indicators: mary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shall	rs of hydrophytic vegetation and nd hydrology must be present,
pth (inches): Hydric Soils Present? This is a flat spot where water from the upslope ditch disperses. DROLOGY Stand Hydrology Indicators: mary Indicators (minimum of one required; check all that apply) Secondary Surface Water (A1) Water-Stained Leaves (B9) Wate High Water Table (A2) (except MLRA 1, 2, 4A, and 4B) (MLE Saturation (A3) Salt Crust (B11) Drair Water Marks (B1) Aquatic Invertebrates (B13) Dry-S Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Satu Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geor	s disturbed or problematic.
PROLOGY Stand Hydrology Indicators: mary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Hydrogen Sulfide Odor (C1) Shall Hydric Soils Present?	
This is a flat spot where water from the upslope ditch disperses. CROLOGY Contact	Yes □ No
Secondary Surface Water (A1)	
Surface Water (A1)	(Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation (C1) Prift Deposits (B3) Algal Mat or Crust (B4) (MLF (MLF (A) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres along Living Roots (C3) Seon	/ Indicators (2 or more required)
Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation (A3) Drain Drain Drain Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Saturation (A3) Dry-S Saturation (A3) Price Marks (B1) Drain Drain Drain Drain Drain Drain Dry-S Saturation (A3) Pry-S Saturation (A3) Dry-S Saturation (A3) Pry-S Saturation (A3) Drain Dry-S Saturation (A3) Dry-S Saturation (C1) Saturation (A3) Pry-S Saturation (A3) Drain Drain	er-Stained Leaves (B9)
Water Marks (B1)	RA 1, 2, 4A, and 4B)
Sediment Deposits (B2)	nage Patterns (B10) Season Water Table (C2)
Drift Deposits (B3)	ration Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	morphic Position (D2)
	low Aquitard (D3)
I Holl Deposits (D3)	-Neutral Test (D5)
	ed Ant Mounds (D6) (LRR A)
	t-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)	ericave Hammooks (B1)
eld Observations:	
urface Water Present? Yes No Depth (inches):	
ater Table Present? Yes No Depth (inches):	
aturation Present? Includes capillary fringe) Yes No Depth (inches): Wetland Hydrolog	y Present? Yes 🗆 No
escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Project Site:	Jensen's Shipy	<u>ard</u>					City/Count	ty:	/San Jua	<u>an</u>	Sampling	Date:	9/2	8/2020	<u>)</u>
Applicant/Owner:	Port of Friday F	<u> Harbor</u>							Sta	te: WA	Sampling	Point:	<u>P5</u>		
Investigator(s):	M. Harenda, A.	. Wones						S	ection, Tov	vnship, Ran	ige: <u>S13,</u>	35N, 3W			
Landform (hillslope, te	rrace, etc.): <u>h</u>	<u>nillslope</u>				Loc	al relief (conca	ve, conve	ex, none):	none		Slop	oe (%):	<u>15</u>	
Subregion (LRR):	MLRA2		Lat:	48.52	5667°	N		Long:	122.9987	′46° W		Datum:	WGS		
Soil Map Unit Name:	Mitchellbay-R	ock Outcrop-Kille	ebrew cor	mplex	, 3 to 1	5 perc	cent slopes			NWI clas	ssification:	<u>NA</u>			
Are climatic / hydrolog	ic conditions on	the site typical fo	r this time	e of ye	ear?	Υ	′es ⊠	No	□ (If r	no, explain	in Remarks	s.)			
Are Vegetation ☐,	Soil ⊠,	or Hydrology	□, sig	gnifica	ntly dis	sturbe	d? Are "N	Normal Ci	rcumstance	es" present	?	Yes	\boxtimes	No	
Are Vegetation ☐,	Soil □,	or Hydrology	□, na	turally	/ proble	ematic	? (If nee	eded, exp	lain any an	nswers in R	emarks.)				
SUMMARY OF FIN	IDINGS – Atta	ch site map s	howing	sam	pling	poin	t locations,	transec	ts, impor	tant featu	ıres, etc.				
Hydrophytic Vegetatio	n Present?		Yes		No	\boxtimes									
Hydric Soil Present?			Yes		No	\boxtimes	Is the Samp within a Wet					Yes		No	\boxtimes
Wetland Hydrology Pro	esent?		Yes		No	\boxtimes									
Remarks:															
VEGETATION - Us	e scientific na	ames of plants													
Tree Stratum (Plot size	ze: <u>20ft dm</u>)		Absolu <u>% Cov</u>		Domi Speci		Indicator <u>Status</u>	Domina	ance Test	Workshee	t:				
1			// 00.	<u></u>				Numbe	r of Domina	ant Species	;				
2										CW, or FAC		<u>0</u>			(A)
3								Total N	umber of D	Dominant					(5)
4								Species	s Across Al	ll Strata:		<u>2</u>			(B)
50% =, 20% =	·				= Tota	al Cov	er	Percen	t of Domina	ant Species		0			(A /D)
Sapling/Shrub Stratu	<u>m</u> (Plot size: <u>10f</u>	<u>t dm</u>)								CW, or FAC		<u>0</u>			(A/B)
1. Cytisus scoparius	<u>S</u>		<u>2</u>		<u>yes</u>		<u>UPL</u>	Prevale	ence Index	k workshee	et:				
2									<u>Total</u>	% Cover of	<u>f:</u>	Mult	iply by:	_	
3								OBL sp	ecies		_	x1 =	_		
4								FACW	species		-	x2 =	_		
5								FAC sp	ecies		_	x3 =	_		
50% = <u>1</u> , 20% = <u>0.4</u>			<u>2</u>		= Tota	al Cov	er	FACU s	species		_	x4 =	_		
Herb Stratum (Plot si	ze: <u>6ft dm</u>)							UPL sp	ecies		_	x5 =	_		
1. Schedonorus pra	<u>tensis</u>		<u>91</u>		yes		<u>FACU</u>	Column	n Totals:		_ (A)			((B)
2. <u>Trifolium pratense</u>	<u>e</u>		<u>2</u>		no		FACU			Prevalenc	e Index = E	B/A =	_		
3. Trifolium repens			3		no		FAC	Hydrop	hytic Veg	etation Ind	icators:				
4.									-	est for Hydr		getation			
5								□ 2	- Dominan	ce Test is >	-50%	-			
6.									- Prevalen	ice Index is	<3 0 ¹				
7.							' <u></u> '	1		ogical Adap	_	ovido supp	orting		
8.										emarks or	,		orting		
9.								□ 5	- Wetland	Non-Vascu	lar Plants ¹				
10.							' <u></u> '	_	roblematic	Hydrophyti	c Vegetatio	n ¹ (Evnlair	.)		
11.									robiciliatio	Пушорпуп	o vogotatio	or (Explair	'/		
50% = <u>48</u> , 20% = <u>19</u> .	2		96		= Tota	al Cov	er			ric soil and			st		
Woody Vine Stratum)	<u>00</u>		100	ui 001	OI.	be pres	ent, unless	s disturbed	or problem	atic.			
1.	<u></u>	_/													
2.								Hydrop	hytic						
50% =, 20% =						al Cov		Vegeta	tion		Yes		N	0	\boxtimes
					- 106	ai 00V	OI .	Presen	it?						
% Bare Ground in He	erb Stratum														
Remarks:															

nches) Color (moist)	%	Color (r	noist)	%	Type ¹ Loc	2 Textur	re Remarks
0-14 10YR 3/2	100				.,,,,,	<u>gr sa</u>	_
			_ _				Oily odor
							_
			_				_
			_				_
			_				_
			_				_
_			_				-
pe: C= Concentration, D=Depl	•		-		pated Sand Grains.		L=Pore Lining, M=Matrix
dric Soil Indicators: (Applical Histosol (A1)	DIE TO AII L	KKS, unles		ly Redox (S5)			licators for Problematic Hydric Soils ³ :
Histic Epipedon (A2)				ped Matrix (S6)	1		2 cm Muck (A10) Red Parent Material (TF2)
Black Histic (A3)					, ral (F1) (except MLR		Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)				ny Gleyed Matri	. ,		Other (Explain in Remarks)
Depleted Below Dark Surface	ce (A11)			eted Matrix (F3)	• •	_	Carol (Explain in Formanc)
Thick Dark Surface (A12)	()		-	x Dark Surface			
Sandy Mucky Mineral (S1)		_		eted Dark Surfa		3Inc	dicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)			-	x Depressions	• •		wetland hydrology must be present, unless disturbed or problematic.
strictive Layer (if present):							anioce dictarbod of problematic.
e:							
oth (inches):					Hydric S	oils Present?	Yes □ No 🛭
narks:							
PROLOGY					•		
ROLOGY tland Hydrology Indicators:	e required;	check all th	at apply)			Seco	ondary Indicators (2 or more required)
PROLOGY tland Hydrology Indicators:	e required;	; check all tr) er-Stained Leav	res (B9)	Seco	ondary Indicators (2 or more required) Water-Stained Leaves (B9)
ROLOGY tland Hydrology Indicators: mary Indicators (minimum of or	e required;		Wate		• •		
ROLOGY tland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1)	e required;		Wate	er-Stained Leav	• •		Water-Stained Leaves (B9)
ROLOGY tland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	ıe required;		Wate (exce	er-Stained Leave	, 4A, and 4B)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
ROLOGY tland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3)	ıe required;		Wate (exce Salt (er-Stained Leave ept MLRA 1, 2, Crust (B11)	4A , and 4B)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
PROLOGY tland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	e required;		Wate (exce Salt (Aqua Hydro	er-Stained Leave ept MLRA 1, 2, Crust (B11) atic Invertebrate ogen Sulfide Oc	4A , and 4B)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
tland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	e required;		Wate (exce Salt (Aqua Hydre Oxidi	er-Stained Leave ept MLRA 1, 2, Crust (B11) stic Invertebrate ogen Sulfide Od ized Rhizosphe ence of Reduce	es (B13) dor (C1) eres along Living Roo ed 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)
PROLOGY Itland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ne required;		Wate (exce Salt (Aqua Hydro Oxidi Prese Rece	er-Stained Leave ept MLRA 1, 2, Crust (B11) stic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reduction	es (B13) dor (C1) eres along Living Roo ed Iron (C4) ion in Tilled Soils (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)
ROLOGY tland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)			Wate (exce Salt (Aqua Hydri Oxidi Prese Rece Stunt	er-Stained Leave ept MLRA 1, 2, Crust (B11) atic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reduction	es (B13) dor (C1) eres along Living Roo ed Iron (C4) don in Tilled Soils (C6 Plants (D1) (LRR A)	ss (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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
ROLOGY Itland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial	Imagery (E		Wate (exce Salt (Aqua Hydri Oxidi Prese Rece Stunt	er-Stained Leave ept MLRA 1, 2, Crust (B11) stic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reduction	es (B13) dor (C1) eres along Living Roo ed Iron (C4) don in Tilled Soils (C6 Plants (D1) (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)
PROLOGY Intland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concar	Imagery (E		Wate (exce Salt (Aqua Hydri Oxidi Prese Rece Stunt	er-Stained Leave ept MLRA 1, 2, Crust (B11) atic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reduction	es (B13) dor (C1) eres along Living Roo ed Iron (C4) don in Tilled Soils (C6 Plants (D1) (LRR A)	ss (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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGY Itland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concar Itld Observations:	Imagery (E ve Surface		Wate (exce Salt (Aqua Hydri Oxidi Prese Rece Stunt Othe	er-Stained Leave ept MLRA 1, 2, Crust (B11) stic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reduction ted or Stresses r (Explain in Re	es (B13) dor (C1) eres along Living Roo ed Iron (C4) ion in Tilled Soils (C6 Plants (D1) (LRR A) emarks)	ss (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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGY Stland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concar Ild Observations: rface Water Present?	Imagery (E ve Surface s □	37) (B8)	Wate (exce Salt (Aqua Hydri Oxidi Prese Rece Stunt Othe	er-Stained Leave ept MLRA 1, 2, Crust (B11) stic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reduction ted or Stresses r (Explain in Re	es (B13) dor (C1) eres along Living Roo ed Iron (C4) don in Tilled Soils (C6 Plants (D1) (LRR A) emarks)	ss (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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGY Intertain Hydrology Indicators: Imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concar Ind Observations: Ifface Water Present? Venter Table Present?	Imagery (E ve Surface s		Wate (exce Salt (Aqua Hydri Oxidi Presi Rece Stunt Othe	er-Stained Leave ept MLRA 1, 2, Crust (B11) htic Invertebrate ogen Sulfide Or ized Rhizosphe ence of Reduce ent Iron Reduction ted or Stresses r (Explain in Re	es (B13) dor (C1) eres along Living Roo ed Iron (C4) ion in Tilled Soils (C6 Plants (D1) (LRR A) emarks)	ss (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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
PROLOGY Itland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concar Itd Observations: face Water Present? Yesturation Present?	Imagery (E ve Surface s	37) (B8)	Wate (exce Salt (Aqua Hydri Oxidi Presi Rece Stunt Othe	er-Stained Leave ept MLRA 1, 2, Crust (B11) stic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reduction ted or Stresses r (Explain in Re	es (B13) dor (C1) eres along Living Roo ed Iron (C4) ion in Tilled Soils (C6 Plants (D1) (LRR A) emarks)	ss (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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concar	Imagery (E ve Surface s		Wate (exce Salt (Aqua Hydri Oxidi Prese Rece Stunt Othe	er-Stained Leave ept MLRA 1, 2, Crust (B11) stic Invertebrate ogen Sulfide Oc ized Rhizosphe ence of Reduce ent Iron Reductive ted or Stresses r (Explain in Re Depth (inches): Depth (inches):	es (B13) dor (C1) eres along Living Roo ed Iron (C4) don in Tilled Soils (C6 Plants (D1) (LRR A) emarks)	s (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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project Site: <u>Jensen's Shipyard</u>			City/Count	ty: <u>/San Juan</u>	Sampling Date:	9/28	/2020	<u>)</u>
Applicant/Owner: Port of Friday Harbor				State: WA	Sampling Point:	<u>P6</u>		
Investigator(s): M. Harenda, A. Wones				Section, Township, Ra	nge: <u>S13, 35N, 3W</u>			
Landform (hillslope, terrace, etc.): <u>hillslope</u>		Local	relief (conca	ave, convex, none): none	Slop	pe (%):	<u>15</u>	
Subregion (LRR): MLRA2	Lat: 48.52	25782° N		Long: <u>122.997990° W</u>	Datum:	WGS		
Soil Map Unit Name: <u>Mitchellbay-Rock Outcrop-Kille</u>	brew complex	, 3 to 15 perce	nt slopes	NWI cla	assification: <u>NA</u>			
Are climatic / hydrologic conditions on the site typical for	this time of y	ear? Ye	es 🛛	No 🔲 (If no, explain	in Remarks.)			
Are Vegetation ☐, Soil ☒, or Hydrology	☐, significa	ntly disturbed	? Are "N	Normal Circumstances" presen	nt? Yes	\boxtimes	No	
Are Vegetation ☐, Soil ☐, or Hydrology	☐, naturall	y problematic?	(If nee	eded, explain any answers in F	Remarks.)			
SUMMARY OF FINDINGS - Attach site map sl	nowing sam	pling point	locations,	transects, important feat	ures, etc.			
Hydrophytic Vegetation Present?	Yes 🏻	No 🗆		· ·				
Hydric Soil Present?	Yes 🗆	No 🖾	ls the Samp		Yes		No	
Wetland Hydrology Present?	Yes 🗆	No ⊠	within a We	tland?		_		_
	103	140 🔼						
Remarks:								
VEGETATION – Use scientific names of plants		Dominant	Indicator	<u> </u>				
Tree Stratum (Plot size: 20ft dm)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test Workshee	et:			
1				Number of Dominant Specie	es .			(4)
2				That Are OBL, FACW, or FA				(A)
3				Total Number of Dominant				
4.				Species Across All Strata:	<u>1</u>			(B)
50% =, 20% =		= Total Cove	 r	Percent of Dominant Specie	.c			
Sapling/Shrub Stratum (Plot size: 10ft dm)				That Are OBL, FACW, or FA				(A/B)
1				Prevalence Index workshe	oot:			
2				Total % Cover		tiply by:		
3				OBL species	x1 =			
4				FACW species	x1 =			
5				·	x3 =			
				FAC species	_			
50% =, 20% =		= Total Cove	r	FACU species	x4 =		_	
Herb Stratum (Plot size: 6ft dm)				UPL species	x5 =	· —		
1. <u>Phalaris arundinacae</u>	<u>95</u>	<u>yes</u>	<u>FACW</u>	Column Totals:	(A)		(B)
2. <u>Equisetum arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	Prevalen	ce Index = B/A =			
3				Hydrophytic Vegetation In	dicators:			
4				☐ 1 – Rapid Test for Hyd	rophytic Vegetation			
5				□ 2 - Dominance Test is	>50%			
6				3 - Prevalence Index is	s <3 0 ¹			
7					o <u>_</u> 0.0 ptations¹ (Provide supp	orting		
8.					on a separate sheet)	Jording		
9.				5 - Wetland Non-Vasc	ular Plants ¹			
10.						,		
				☐ Problematic Hydrophy	tic Vegetation¹ (Explair	1)		
11				¹ Indicators of hydric soil and	wetland hydrology mu	ıst		
50% = 50, 20% = 20	<u>100</u>	= Total Cove	r	be present, unless disturbed				
Woody Vine Stratum (Plot size:)								
1				Ukada a a kadé a				
2				Hydrophytic Vegetation	Yes 🖂	No	,	
50% =, 20% =		= Total Cove	r	Present?	. 30 🛮 🖂	140		_
% Bare Ground in Herb Stratum								
Remarks:				I				
Nomarks.								

							Sampling Point: P6			
rofile Descr	iption: (Describe	o the dept	th needed to	document the indicator	or confirm the abse	ence of indicato	ors.)			
Depth	Matrix			Redox Featu	res					
(inches)	Color (moist)	%	Color (m	oist) %	Type ¹ Loc ²	Texture		Remark	S	
<u>0-7</u>	10YR 3/2	100				<u>sa Im</u>				
<u>7-12</u>	10YR 3/2	<u>100</u>				<u>sa Im</u>	<u>Compacted</u>			
<u>12-14</u>	10YR 3/2	<u>100</u>				gr Imy s	<u> </u>			
							. <u>—</u>			
							. <u>——</u>			
Гуре: C= Cor	ncentration, D=Dep	letion, RM	=Reduced Ma	trix, CS=Covered or Coat	ted Sand Grains.	² Location: PL=	Pore Lining, M=Matrix	x		
lydric Soil In	dicators: (Applic	able to all	LRRs, unless	otherwise noted.)		Indic	ators for Problemati	ic Hydric S	Soils³:	
Histosol	(A1)			Sandy Redox (S5)			2 cm Muck (A10)			
] Histic E _l	pipedon (A2)			Stripped Matrix (S6)			Red Parent Materia	al (TF2)		
Black Hi	istic (A3)			Loamy Mucky Mineral	(F1) (except MLRA	1) 🗆	Very Shallow Dark	Surface (T	F12)	
☐ Hydroge	en Sulfide (A4)			Loamy Gleyed Matrix	(F2)		Other (Explain in R	emarks)		
] Deplete	d Below Dark Surfa	ace (A11)		Depleted Matrix (F3)						
☐ Thick Da	ark Surface (A12)			Redox Dark Surface ((F6)					
☐ Sandy N	Mucky Mineral (S1)			Depleted Dark Surface	e (F7)		cators of hydrophytic			
☐ Sandy G	Gleyed Matrix (S4)			Redox Depressions (F	F8)		etland hydrology mus nless disturbed or prol		ıt,	
estrictive La	ayer (if present):						noso anotanzoa en pre-			
уре:	<u></u>									
epth (inches):				Hudria Cai	ls Present?	Yes		No	\boxtimes
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/DROLOGY	/ rology Indicators:				nyunc 30					
<u>/DROLOGY</u> Vetland Hydr			d; check all tha	at apply)	nyunc 30	Second	dary Indicators (2 or n	nore requir	ed)	
'DROLOG' Vetland Hydi	rology Indicators:		d; check all tha	at apply) Water-Stained Leaves			dary Indicators (2 or n Water-Stained Leaves		ed)	
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