### WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

This form must be included with any wetland delineation report submitted to the Department of State Lands for review and approval. A wetland delineation report submittal is not "complete" unless the fully completed and signed report cover form and the required fee are submitted. Attach this form to the front of an unbound report or include a hard copy of the completed form with a CD/DVD that includes a single PDF file of the report cover form and report (minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.** A single PDF attachment of the completed cover from and report may be e-mailed to **Wetland\_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail instructions on how to access the file from your ftp or other file sharing website. Fees can be paid by check or credit card. Make the check payable to the Oregon Department of State Lands. To pay the fee by credit card, call 503-986-5200.

☐ Applicant ☐ Owner Name, Firm and Address:	Business phone # 503-842-1809
Tillamook County	Mobile phone # (optional)
201 Laurel Ave	E-mail:
Tillamook, OR 97141	
Authorized Legal Agent, Name and Address:	Business phone #
	Mobile phone #
	E-mail:
property for the purpose of confirming the information in the report	
Typed/Printed Name:   Date:   Special instructions regarding site acc	ess: None
Project and Site Information (using decimal degree format	for lat/long.,enter centroid of site or start & end points of linear project)
Project Name: Oregon Solutions - Southern Flow Corridor	Latitude: 45.4725 Longitude: -123.8736
Proposed Use: Restoration	Tax Map # 1S R10 Sections 14, 22-25, 25AC
Project Street Address (or other descriptive location):	Township 1S Range 10W Section 14, 22-25, 25AC
730 acres north of Highway 131 and west of Highway	Tax Lot(s) many, see page 2 of WDR
101. South of Wilson River, east of Tillamook Bay and	Waterway: Wilson River, Hall River Mile: many
the Trask River.	Slough, Trask River
City: Tillamook County: Tillamook	NWI Quad(s): Tillamook
	neation Information
Wetland Consultant Name, Firm and Address:	Phone # 503-349-4470
MCS Corp	Mobile phone #
3895 SW 94th Ave Portland, OR 97225	E-mail: greta@murdoffcs.com
The information and conclusions on this form and in the attached r	report are true and correct to the best of my knowledge.
Consultant Signature:	Date: 6/17/2015
The Transfer	
Primary Contact for report review and site access is C	
	size: 729.8ac Total Wetland Acreage: 709.4ac
Check Box Below if Applicable:	Fees:
☑ R-F permit application submitted	Fee payment submitted \$ 406.00
☐ Mitigation bank site	Fee (\$100) for resubmittal of rejected report
☑ Wetland restoration/enhancement project (not mitigation)	
☐ Industrial Land Certification Program Site	report
Reissuance of a recently expired delineation	
Previous DSL # Expiration date	
Other Information:	Y N
Has previous delineation/application been made on parcel?	☐ ☑ If known, previous DSL #
Does LWI, if any, show wetland or waters on parcel?	
For Off	ice Use Only
DSL Reviewer: Fee Paid Date:	
Date Delineation Received:// DSL Pro	oject # DSL Site #
Scanned: ☐ Final Scan: ☐ DSL WI	N# DSL App. #

# **Oregon Solutions - Southern Flow Corridor**

Wetland Delineation Report
June 2015

Prepared for:

Tillamook County 201 Laurel Ave Tillamook, OR 97141 (503) 842-1809

and

Port of Tillamook Bay 4000 Blimp Blvd. Suite 100 Tillamook, OR 97141 (503) 842-2413

Prepared by:



3895 SW 94th Ave Portland, OR 97225 Contact: Greta Presley - (503) 349-4470

and

latimer environmental LLC 35 SE 76th Avenue Portland, Oregon 97215 phone 503.867.1780 fax 503.549.8711



# **Contents**

1.0	Introd	luction	1
1.1	Lan	dscape Setting and Land Use	2
1.2	Site	Alterations	3
1.3	Pre	cipitation Data and Analysis	3
2.0	Meth	ods	3
2.1	Нус	drology	5
2.2	Soil	ls	5
2.3	Veg	getation	6
3.0	Result	ts	6
3.1	Des	scription of All Wetlands and Other Non-Wetland Waters	6
3.	1.1	Farmed Herbaceous Wetlands	7
3.	1.2	Herbaceous Wetlands	7
3.	1.3	Forested Wetlands	8
3.	1.5	Other Waters	8
3.2	Dev	viation from LWI or NWI	8
3.3	Ma	pping Method	9
3.4	Add	ditional Information	9
4.0	Concl	usions	9
5.0	Discla	imer	9
Tabl	es		
Table 1	_	Summary of Precipitation Data between May 2014 and September 2014 for Tillamook,	3

# **Appendices**

Appendix A Figures

Figure 1: Location Map

Figure 2a and b: Tax Lot Map

Figure 3: NWI Map

Figure 4: LWI Map

Figure 5: County Soil Survey Map

Figure 5a-c: Aerial Photograph

Figure 6a-q: Wetland Delineation Map

Appendix B Data Forms

Appendix C Ground Level Photographs

Appendix D Additional Tables and Information

Appendix E Literature Citations

# **Acronyms and Abbreviations**

DSL Oregon Department of State Lands

Corps U.S. Army Corps of Engineers

EFU Exclusive Farm Use

HGM hydrogeomorphic

LWI local wetlands inventory

NWI National Wetlands Inventory (U.S. Department of Agriculture [USDA])

NRCS Natural Resources Conservation Service

NHC Northwest Hydraulic Consultants

OHWM Ordinary High Water Mark

OSP Oregon Solutions Project

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

SF Square feet

# 1.0 Introduction

Five rivers enter the Tillamook Bay estuary: the Miami, Kilchis, Wilson, Trask, and Tillamook. Flooding occurs frequently in the lower reaches of the Wilson, Trask, and Tillamook, typically between October and April. High tides combine with storm surges, heavy rainfall, and snowmelt, causing coastal and inland flooding. Fourteen major river and coastal floods have been recorded in the Tillamook Basin since 1916. Flood losses in Tillamook County exceeded \$60 million from 1996 through 2000 and included damages to homes, farmland, businesses, and infrastructure. Additional flood losses have been incurred by the Tillamook community since 2000.

In response to these frequent flood events, Port of Tillamook Bay (POTB), Tillamook County, the City of Tillamook, several state and federal agencies, non-profit organizations, and local business interests have worked together to identify solutions to Tillamook Valley's ongoing flood problem. Numerous investigations, studies, and collaborative evaluations of potential flood reduction actions that have taken place since 1994 led to the designation of flooding in central Tillamook County as an Oregon Solutions project (OSP)<sup>1</sup> by the governor of Oregon.

The Southern Flow Corridor project is part of the OSP, providing flooding solutions for the Wilson River to reduce flood levels and prevent future flood damages. The Southern Flow Corridor is the largest area (approximately 642 acres) in the OSP designated for restoration by removing extensive levees and fill to create a more unobstructed flood pathway out to Tillamook Bay. New levees will be constructed and some existing levees improved further inland to protect existing agricultural areas while also allowing river flood flows to pass through and blocking high tides and coastal storm surges. This project will return a large area (approximately 520 acres) of agricultural wetlands to functioning tidal wetlands by connecting the area back to the influence of Tillamook Bay.

The purpose of this wetland delineation is to (1) document the extent and character of the wetlands within the study area and (2) show the area of likely jurisdiction. The study area lies generally northwest of Tillamook, Oregon (Appendix A, Figure 1). It is made up of numerous large tax lots on maps 1S 10W 22, 1S 10W 23, 1S 10W 24, 1S 10W 25, and 1S 10W 25AC (Appendix A, Figures 2a, 2b, 2c). The majority of the lots are currently zoned as Exclusive Farm Use (EFU) with some light industrial areas.

This report describes the methodology used to complete the delineation, describes the existing conditions of the study area, and discusses the results of the wetland delineation. Figures and reference maps are included in Appendix A; wetland delineation data forms are included in Appendix B; and site photographs are included in Appendix C. Appendix D includes additional tables and information. Literature citations may be found in Appendix E.

-

<sup>&</sup>lt;sup>1</sup> The Oregon Solutions Program is a community governance program initiated by the Oregon Sustainability Act of 2001 housed in the Portland State University National Policy Consensus Center. The Oregon Solutions Program "brings representatives from the business, nonprofit, and civic sector to make commitments, take on specific roles and responsibilities, leverage and pool resources, [and solve problems]." (Oregon Solutions 2014)

# 1.1 Landscape Setting and Land Use

The study area is located in the Coastal Lowlands subregion of the Coast Range ecoregion (EPA 2011), sitting above Tillamook Bay on a flat terrace below the western flank of the Coastal Mountain Range. It is located in the Trask River watershed (hydrologic unit code [HUC] 1710020304) and the Tillamook Bay-Frontal Pacific Ocean watershed (HUC 1710020308), in the Northern Oregon Coast subbasin.

The study area is bordered to the north by the Wilson River and to the northeast by Hall Slough, to the west and southwest by Tillamook Bay and the Trask River, and to the east by agricultural fields (Appendix A, Figure 1). The City of Tillamook forms the southeast border of the study area. The study area is topographically located close to sea level and mostly flat with variations generally originating from human manipulation, e.g., levees and other fills. Study area elevations range from approximately - 2 to 10 feet above mean sea level (MSL).

The study area is located north and west of the City of Tillamook, Township 1 South, Range 10 West, Sections 14, 22, 23, 24, 25, and 25AC (Appendix A, Figure 2) in Tillamook County, Oregon. As shown in Figure 2, the study area includes the following tax lots:

Tax Map 1S R10 14: 100 and 400

Tax Map 1S R10 22: 100 and 200

Tax Map 1S R10 23: 200, 700, 800, 801, 900, 1400, and 1500

Tax Map 1S R10 24: 600

• Tax Map 1S R10 25: 200

• Tax Map 1S R10 25AC: 100, 200, and 4500

The study area is contiguous with an area of wetlands mapped by the National Wetlands Inventory (NWI) (USFWS 2008; Appendix A, Figure 3) that extend to the south and southwest. The Local Wetland Inventory (LWI) also maps wetlands throughout the study area (Wilson, Scoles, Brophy 1997; Appendix A, Figure 4). Soils mapped within the study area are typical of the Tillamook area (NRCS 2008; Appendix A, Figure 5).

The study area is zoned agriculture, either intensive use or mixed range. The area surrounding the study area is also generally zoned for agricultural use: A small portion to the southeast of the study area, within the city limits, is zoned commercial, industrial, and low-density residential.

Approximately 400 acres is currently in public ownership and 125 acres is proposed for purchase by Tillamook County. Approximately 185 acres of the study area is presently used for agricultural purposes.

For the purposes of the wetland delineation, the SFC project area was reduced from 758.6 to 729.8 acres to account for the length of Dougherty Slough to the east that was not included in the scope of the wetland/waters investigations. Henceforth, the term "study area" refers to the 729.8-acre wetlands/waters study area and the SFC project area refers to the 758.6-acre study area.

## 1.2 Site Alterations

The majority of the study area was historically (as well as some currently) used for agricultural purposes. Historic construction of the levee system converted much of the tidal wetlands to drier, mostly disconnected agricultural lands.

A small portion of the study area, located at the south east corner, has a long history of industrial uses. The history of the industrial area is presented in detail in the findings of a Phase II environmental assessment report (Anderson Geological, Inc. 2014). In summary, numerous sawmilling operations occupied the 66-acre industrial area beginning in 1885. In 1926, veneer manufacturing also began along the eastern portion of the industrial area. The sawmilling operations ceased in the mid-1960's and the log ponds were drained. Fill material was placed on the southeast corner of the west log pond and is currently overgrown with vegetation.

# 1.3 Precipitation Data and Analysis

The following tables provide precipitation recorded at the National Weather Service station in Astoria (closest station) for the months of the site visits. On average, precipitation was slightly above normal for the year. The months preceding the site visits were generally above average.

Table 1. Summary of Precipitation Data between May 2014 and September 2014 for Tillamook, Oregon

Category	May	June	July	August	September	Total Year to Date
Recorded Precipitation (inches)	5.00	2.10	1.75	0.73	3.69	54.86
Monthly Precipitation Average (inches)	4.72	3.58	1.38	1.31	3.00	54.00
Percent of Normal Recorded	106%	59%	127%	56%	123%	101%

Source: NOAA 2014

Daily precipitation data for the day of, day before, and 2 weeks prior to the field visits are provided in Appendix D. The WETS tables are also included in this appendix for reference purposes.

### 2.0 Methods

The proposed project may generally be divided into two main activity categories:

- 1. Restoration, which generally includes removal of levees, fill, and floodgates, and placement of fills to decommission man-made infrastructure (e.g., drainage ditches).
- 2. Fill for the purpose of constructing new levees, floodgates, and associated infrastructure.

State and federal wetland jurisdiction for each of the proposed activity types played a key role in determining the methods and resolution of the required wetland delineation (see "Jurisdiction" section

below): Because the extent of the Highest Observed Tide (HOT) – the jurisdictional wetland boundary - encompasses most of the project area (generally excepting the tops of the highest berms), all areas below the HOT elevation are essentially regulated as "wetlands" by the agencies, regardless of whether they exhibit wetland characteristics. Moreover, because the project mainly involves restoration of former wetlands, rather than wetland loss due to development, a high degree of delineation accuracy is less important (see below). However, in areas where fill and removal is proposed for construction of new or improved levees and related infrastructure, we conducted a standard wetland delineation.

#### **Standard Delineation Methods**

Potential wetlands were identified prior to site visits using U.S. Geological Survey (USGS) Topographic Quadrangle Maps (USGS, Tillamook, OR 1985); U.S. Fish and Wildlife Service (USFWS) NWI Mapping (Tillamook quad, USFWS 1982); the Soil Survey of Tillamook County, Oregon, (Fillmore 2006); and the Local Wetland Inventory (Wilson, Scoles, Brophy 1997).

MCS Corp and Latimer Environmental staff conducted wetland delineation fieldwork on May 16, July 14-16, August 22, and September 15-17, 2014.

Wetland delineation followed standard criteria outlined in the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual (USACE Manual) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coastal Areas* (2010 Supplement), regardless of proposed activity type. For an area to be considered a wetland using the USACE Manual, it must meet criteria for hydrology, hydric soils, and hydrophytic vegetation. Thus, for each wetland, we recorded hydrology, soils, and vegetation data on Routine Wetland Determination Field Data Forms (Appendix B), at least one data plot each for the wetland and in the adjacent upland. Additional "test plots" were routinely taken to confirm that hydric soils and hydrology indicators were present in areas that contained marginal wetland vegetation; however, test plots are generally only used to guide the wetland boundary determination and not usually recorded on data forms.

### **Mapping Method and Accuracy**

For areas proposed for restoration activities, data plots were provided in areas where we noted a significant deviation from wetlands mapped on the NWI or LWI (OAR 141-090-0035) or to provide data needed to develop the wetland functional assessment.<sup>2</sup>

All flagged delineation boundaries were surveyed to digital format using a mapping-grade GPS. Existing survey control (provided by Tillamook County) was used to ensure data was collected at sub-meter accuracy (generally within 0.5 meter).

### <u>Jurisdiction</u>

Because the study area is tidally influenced, regulatory jurisdiction by the Oregon Department of State Lands (DSL) and USACE are governed by OAR 141-085-0515 and 33 CFR Part 328, respectively. Both agencies have agreed to use the Highest Observed Tide (HOT) as the regulatory wetland boundary for

<sup>&</sup>lt;sup>2</sup> DSL generally requires delineation accuracy to only be within 50 feet for restoration projects (OAR 141-090-0035 11 (b)).

this project (see Appendix D), which is documented as occurring at elevation 11.9 feet above mean sea level (DSL 2010).

Figures 6a-6q show the HOT as elevation contours of 11.9 feet overlain on the study area map: Closed polygons (in red) show those areas occurring above the HOT that would likely be non-jurisdictional, pending agency concurrence.

# 2.1 Hydrology

Wetland delineation data forms adapted from the 2010 Supplement were used to record hydrology, soils, and vegetation data at numerous representative sample points located within the study area (Appendix B). Hydrology observations were recorded at each plot. Data collected included presence/absence and depth of saturation and/or inundation and the presence/absence of other primary and secondary wetland hydrology indicators. Soil pits were used to measure depth of saturation and depth to free water, when present. While soils indicators were particularly unreliable (due to tilling, and the entire study area being mapped with hydric soils), hydrology indicators were concomitant with subtle changes in vegetation. A lack of vegetation was construed as an indicator of wetland conditions in some areas (i.e., heavily forested areas).

Water feature boundaries were determined by flagging the limits of the Ordinary High Water Mark (OHWM) of each feature. According to DSL administrative rules, the OHWM is defined as "the line on the bank or shore to which the high water ordinarily rises annually in season (ORS 274-005)" (DSL 2003). The OHWM also marks the boundary for designated "Waters of the United States". Although the HOT elevation likely represents the jurisdictional boundary in most, if not all cases, the OHWM was still determined in the field for the purpose of characterizing existing drainages and other waters. OHWM was determined by noting physical indications of seasonal scour, flooding, deposition, ponding, and/or related active channel processes. Typical field indicators include the limits of litter, debris and drift lines, the deposition of fines, a distinct change in the vegetative community, textural changes in soils, and the presence of a distinct change in topography or natural line of inundation along the margin of a water feature.

#### 2.2 Soils

At each sample plot, soils pits were excavated to a depth of at least 16 inches (where possible) to determine presence or absence of hydric soil conditions. In areas where excavation to at least 16 inches could not be attained, pits were dug as deep as possible and the reason why deeper excavation was not possible (e.g., presence of large dense cobbles or other refusal) was recorded in the soil remarks section of the data form. Soil hue, value, and chroma were determined using Munsell Soil Color Charts (Munsell Color Services 2000).

The Natural Resources Conservation Service (NRCS) maps seven soil types within the study area (Appendix A, Figure 4). Specifically, Brenner Silt Loam (Map Unit 1A), Coquille Silt Loam (Map Unit 3A), Nehalem Silt Loam (Map Unit 73A), Urban land-Udorthents complex (Map Unit 101B), Fluvaquents-Histosols complex, diked (Map Unit 102A), Coquille silt loam, diked (Map Unit 103A), and Coquille-

Brenner-Nehalem association (Map Unit 104A) are mapped within the study area (Figure 4). NRCS considers all but the Nehalem Silt Loam to be hydric or contain hydric inclusions.

# 2.3 Vegetation

The study area can be divided into four general land use classes that influence vegetation: agricultural, historically industrial, and undisturbed. In the agricultural areas, hydrology and vegetation (and to some extent, soils) have been manipulated for decades and may be considered an Atypical Situation. Soils and hydrology may have been altered in the historically industrial area, which may influence what type of vegetation thrives there, e.g., blackberry or other invasive species, which may also be considered an Atypical Situation. In the undisturbed portions of the study area, hydrology has been manipulated by existing levees and various drainage facilities, but most of the associated lands have been largely undisturbed since the construction of the levees and drainage.

Plots were placed as close as possible (generally well within 20 feet), using a 5-foot sample radius for herbs and shrubs/saplings and a 30-foot sample radius for trees. Plot configuration and size were adjusted in some areas to account for the presence of differing adjacent plant communities, topographic variation, and/or other landscape characteristics. Vegetation data collected within each plot included scientific name, stratum, wetland indicator status, and absolute percent cover by strata (visually estimated) for all identifiable plants within the sample plot. Absolute cover estimates were then converted to relative percent cover and dominant species determined using the 50/20 Rule (see USACE Manual). Hydrophytic vegetation was considered prevalent if greater than 50 percent of dominant species from all strata were classified as OBL, FACW, or FAC.

# 3.0 Results

Based on the available survey drawings, HOT mapping, and results of the field delineation, the wetland/waters area within the proposed study area is approximately 709.4 acres. Of the 709.4 acres of wetlands/waters, the following types are present: farmed herbaceous wetlands (403.4 acres), unfarmed herbaceous wetlands (126.5-acre), scrub-shrub wetland (31-acre), forested wetlands (69.1-acre), saltwater wetlands (21.5-acre), and riverine habitat/waterways (57.9-acre).

Appendix A includes a wetland delineation map showing locations of these potential jurisdictional features, as well as the locations of data points and photo locations. Appendix B includes the data forms completed for the study area. Appendix C includes photographs of representative wetland types mapped in the study area.

# 3.1 Description of All Wetlands and Other Non-Wetland Waters

All of the wetlands and other waters within the study area are directly connected or adjacent to each other and to Tillamook Bay; therefore, all wetlands/waters features within the study area will likely be considered jurisdictional by DSL and the Corps. In addition, all flagged wetlands and other waters lie below the 11.9 foot HOT line (Appendix A, Figures 6a-6q) and are, therefore, likely jurisdictional (see Section 2.0). Within the 729.8-acre study area, approximately 20.4 acres were above the 11.9 elevation

Section 2.0). Within the 729.8-acre study area, approximately 20.4 acres were above the 11.9 elevation and, therefore, likely not considered jurisdictional. Conversely, the remaining 709.4 acres would be likely be considered jurisdictional. Due to the extensive jurisdictional area within the study area, the flagged wetlands and waters are group by vegetation type and discussed as a group below.

#### 3.1.1 Farmed Herbaceous Wetlands

The majority of the wetlands within the study area are herbaceous, agricultural (farmed) wetlands. Historically these areas were cleared and diked. The system of levees and drainage channels does not prevent the wetlands from achieving sufficient hydrology during the growing season. The levees and drainage channels are in place to make agricultural practices such as haying and pasturing possible in an otherwise flooded area.

Vegetation within these wetlands primarily consists of reed canarygrass (*Phalaris arundinacea*, FACW), colonial bentgrass (*Agrostis capillaris*, FAC), soft rush (*Juncus effusus*, FACW), tall fescue (*Festuca arundinaca*, FAC), velvet grass (*Holcus lanatus*, FAC), Italian ryegrass (*Lolium perenne*, FAC), and meadow foxtail (*Alopecurus pratensis*, FAC).

Soils in these wetlands have been somewhat altered or manipulated from a long history of agricultural practices. Soils are typically brown to very dark grayish brown (10YR 3/3 and 3/2) silt loams and silty clay loams in the upper 6-8 inches. Soils in the upper profiles are mostly disturbed (drilled, tilled) or compacted (cows). Below the A horizon, soils generally contained redoximorphic features such as mottles and lower chromas.

The primary hydrologic indicators most commonly observed in the farmed wetlands were soil saturation and oxidized rhizopheres. The data plots were excavated during the late spring and summer, so the water table was somewhat lower than ideal. The FAC-neutral test was a common secondary indicator. Adjacent upland plots displayed better drainage and lacked any primary hydrologic indicators. In general these wetlands connect to drainage channels which flow in to sloughs via overland or subsurface flow.

The boundaries of the farmed wetlands were initially indicated by changes in vegetation toward more weedy, upland species, but were substantiated by soil (redoximorphic features) and hydrologic (soil saturation) indicators. Vegetation and soils are actively managed or disturbed by livestock, so best professional judgment and hydrology indicators were the more reliable bases for boundary determination. In many areas, topographic changes tightly corresponded to soil and hydrology changes. Numerous soil test plots were excavated to confirm the wetland boundaries as they were being flagged, but were not recorded.

#### 3.1.2 Herbaceous Wetlands

The non-agricultural herbaceous wetlands are generally mapped just outside the farmed fields, in areas that are too wet to farm. Vegetation within these wetlands primarily consists of reed canarygrass, colonial bentgrass, soft rush, and slough sedge (*Carex obnupta*, OBL).

Soils sampled were typically silt loams to silty clay loams with low chroma (10YR 2/2 to 3/2). Due to the redox concentrations in greater than 5% abundance, the soils met the criteria for the redox dark surface indicator. Several areas contained highly altered soils, likely due to dredge spoils.

Hydrology criteria were met by the presence of oxidized rhizospheres in the soil test pits. The FAC-neutral test was a common secondary indicator. Due to the relatively late timing of the field investigations and the well drained character of the dredge spoils, hydrology was an unreliable indicator for many plots. Therefore, the boundaries for the herbaceous wetlands were determined by the presence of hydrophytic vegetation and presence/absence of redox concentrations.

#### 3.1.3 Forested Wetlands

Several forested wetlands are located within the study area. These are generally outside agricultural boundaries and are relatively undisturbed. Vegetation within these wetlands primarily consists of Sitka spruce (*Picea sitchensis*, FAC), willows (*Salix* spp, FACW), salmonberry (*Rubus spectabilis*, FAC), and slough sedge in the understory.

Soils in these wetlands are generally homogenous and undisturbed. Soils are typically very dark gray to very dark grayish brown (10YR 3/2 and 3/1) silt loams and silty clay loams. Redoximophic features included distinct to prominent concentrations.

The primary hydrologic indicator most commonly observed in the forested wetlands was oxidized rhizopheres. Adjacent upland plots displayed better drainage and lacked any primary hydrologic indicators.

The boundaries of the forest wetlands were generally based on changes in topography but were substantiated by soil (redoximorphic features) indicators. Most of the forested wetlands within the study area are bounded by levees and the elevation of inundation marked by a change in soil indicators. Numerous soil test plots were excavated to confirm the wetland boundaries as they were being flagged, but were not recorded.

#### 3.1.5 Other Waters

Numerous sloughs, canals, and manmade ditches were documented within the study area. Most of these drainages were not flagged separately from the adjacent wetlands. The west bank of Hall Slough was flagged at the eastern end of the study area. The channel banks of Hall Slough are generally steep and artificially created above approximately six feet during levee construction. Sparse vegetation grows below the flagged OHWM due to tide fluctuations. Above the OHWM, reed canarygrass dominates the herbaceous edge with trees and shrubs further up the levee banks.

Typical agricultural ditches consist of steep to vertical banks vegetated by reed canarygrass, slough sedge, spreading rush (*Juncus patens*, FACW) and aquatics such as water milfoil (*Myriophyllum* sp) and duckweed (*Lemna* sp). These trapezoidal ditches are generally linear and designed to drain agricultural fields.

#### 3.2 Deviation from LWI or NWI

The NWI (Appendix A, Figure 3) maps the entire study area as either freshwater forested/scrub-shrub or freshwater emergent wetland.

The 1997 LWI maps much of the study area as "probable wetland" "mosaics" because access was denied at that time.

# 3.3 Mapping Method

Flagged wetland/water boundaries and data plots were surveyed using a handheld GPS to an approximate accuracy of 0.5 foot and digitally mapped using AutoCAD®. Wetland boundaries and sample plots shall be identified on the ground with stakes, flags, and/or identified on an aerial photo and/or the wetland map, such that the boundaries and sample plots can be readily relocated in the field during a site visit.

## 3.4 Additional Information

### 4.0 Conclusions

Based on the results of the 2014 routine wetland delineations, the jurisdictional wetland/waters area within the proposed study area is approximately 709.4 acres. Of the flagged wetlands/waters, the following types are present: farmed herbaceous wetlands, unfarmed herbaceous wetlands, forested wetlands and riverine habitat/waterways.

MCS Corp and Latimer Environmental conducted wetland delineation fieldwork on May 16, July 14-16, August 22, and September 15-17, 2014.

# 5.0 Disclaimer

This report documents the investigation, best professional judgment and conclusions of the investigator. It is correct and complete to the best of my knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.

# **APPENDIX A**

# Figures

■ Figure 1: Location Map

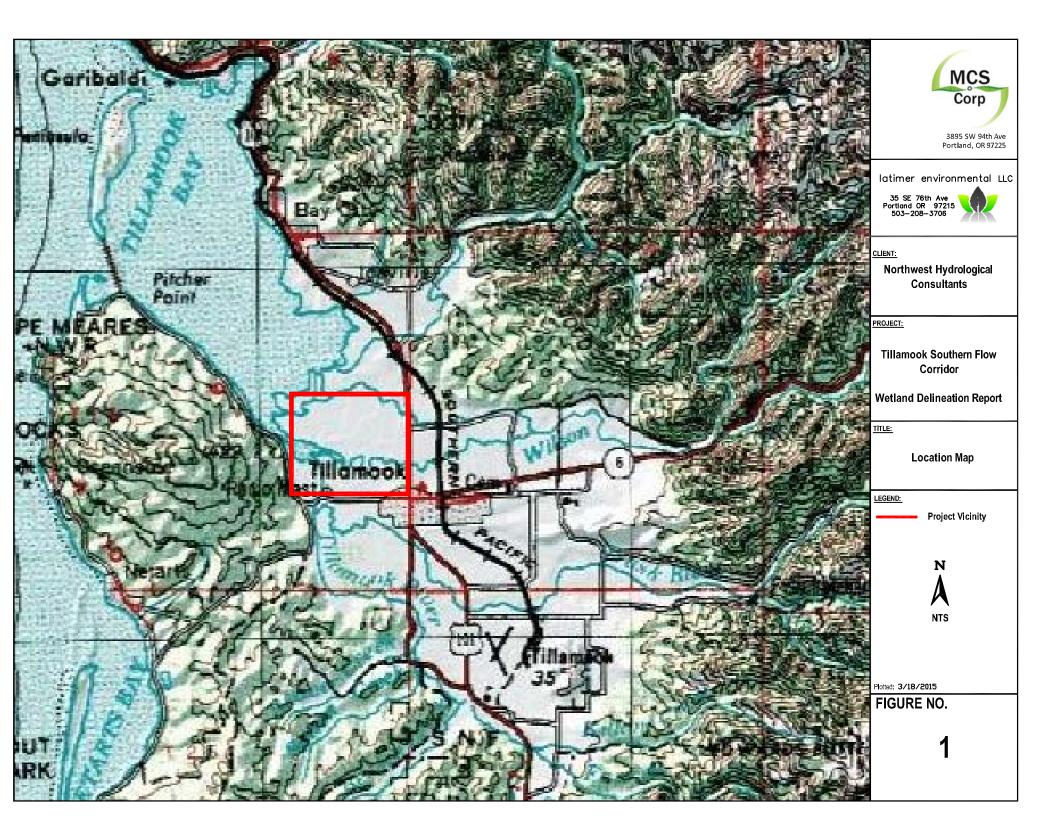
■ Figure 2a and b: Tax Lot Map

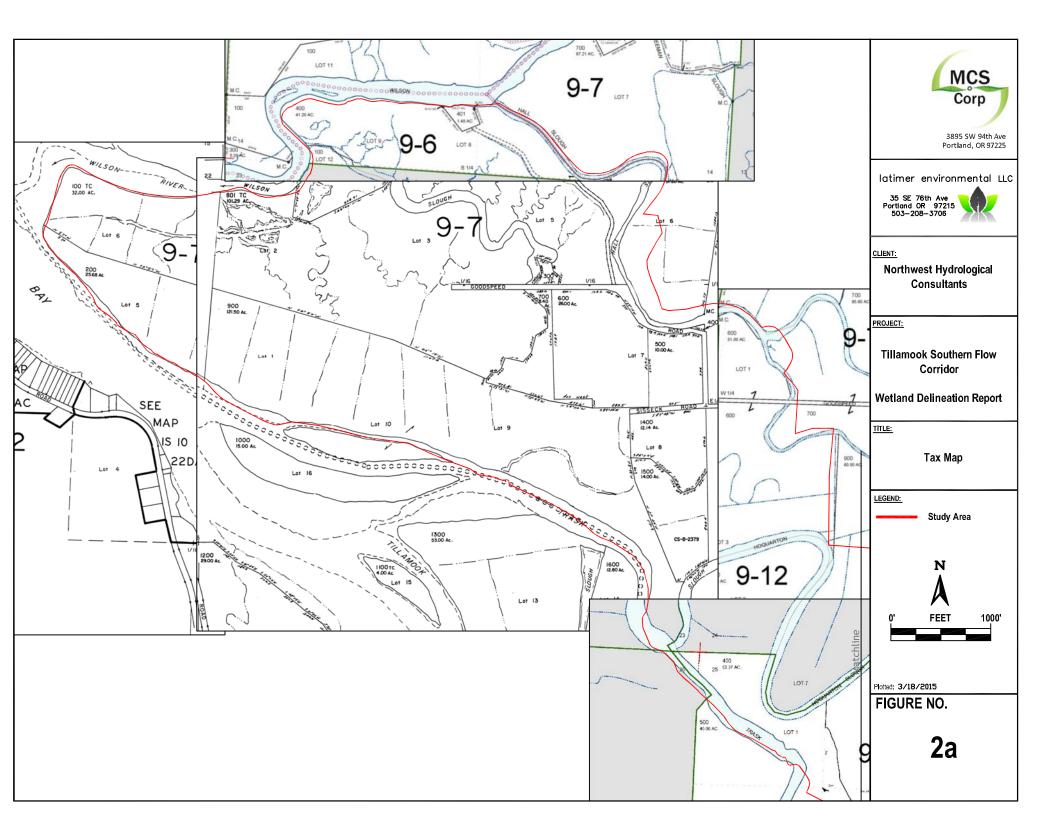
■ Figure 3: NWI Map

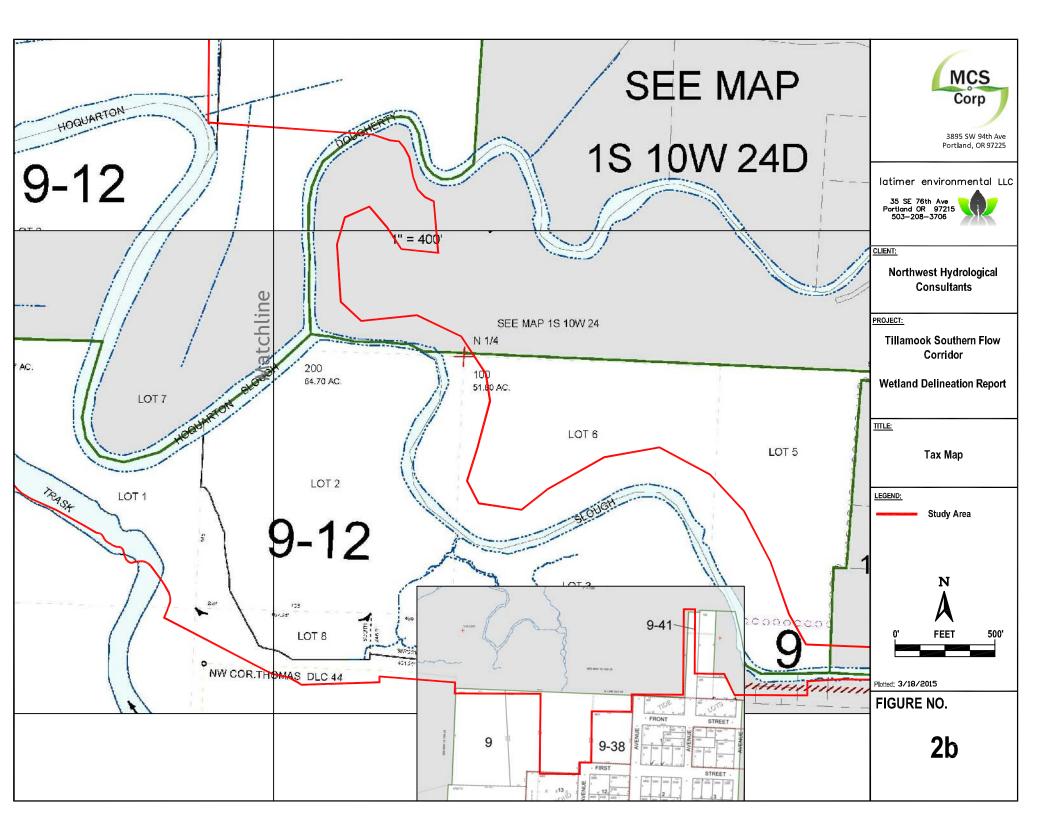
■ Figure 4a and b: County Soil Survey Map

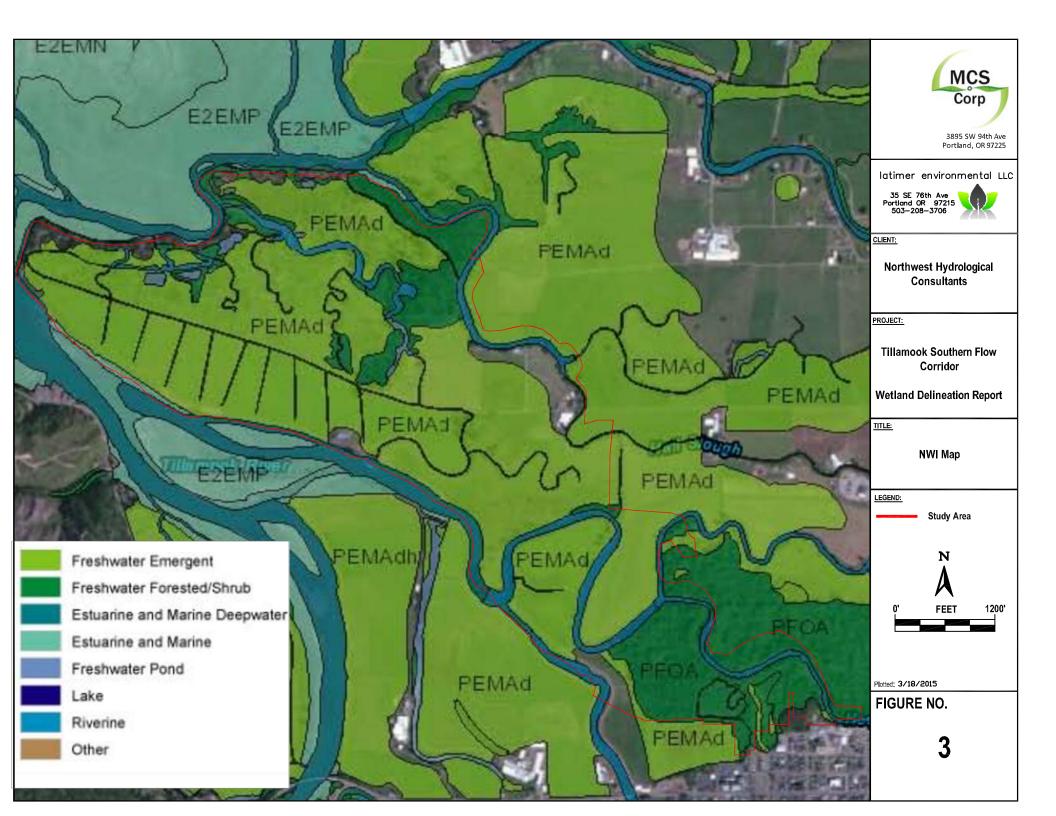
• Figure 5a-c: Aerial Photograph

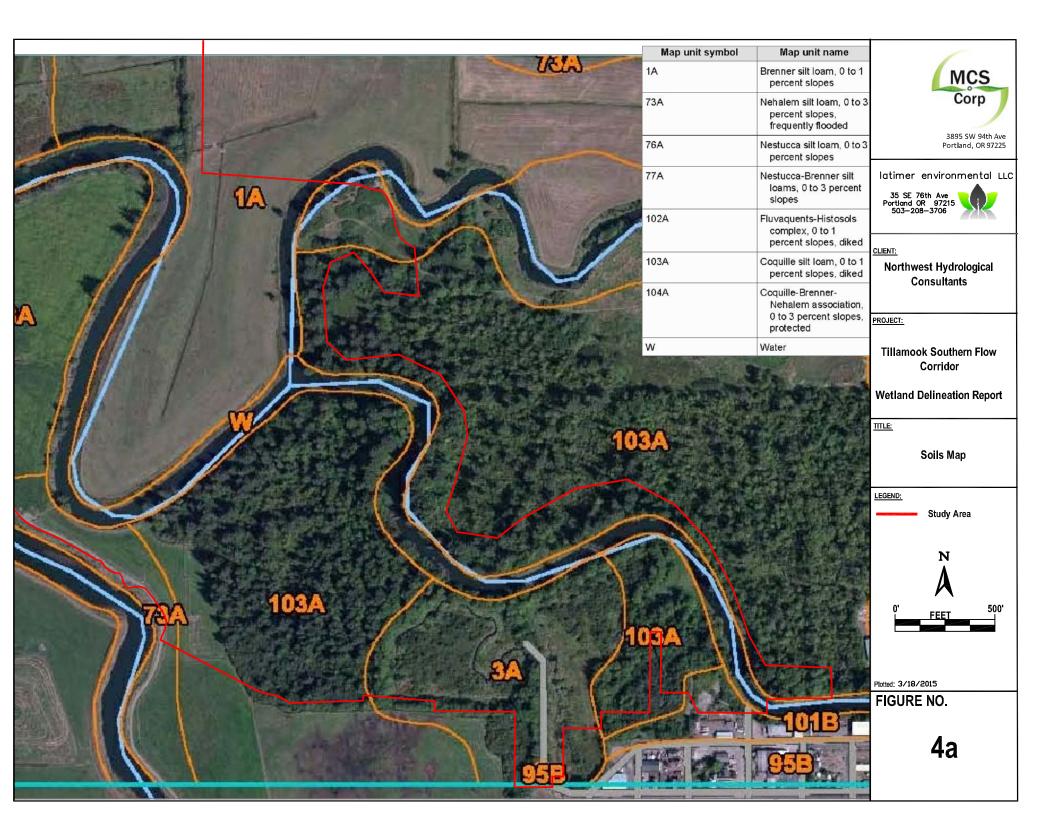
• Figure 6a-q: Wetland Delineation Maps

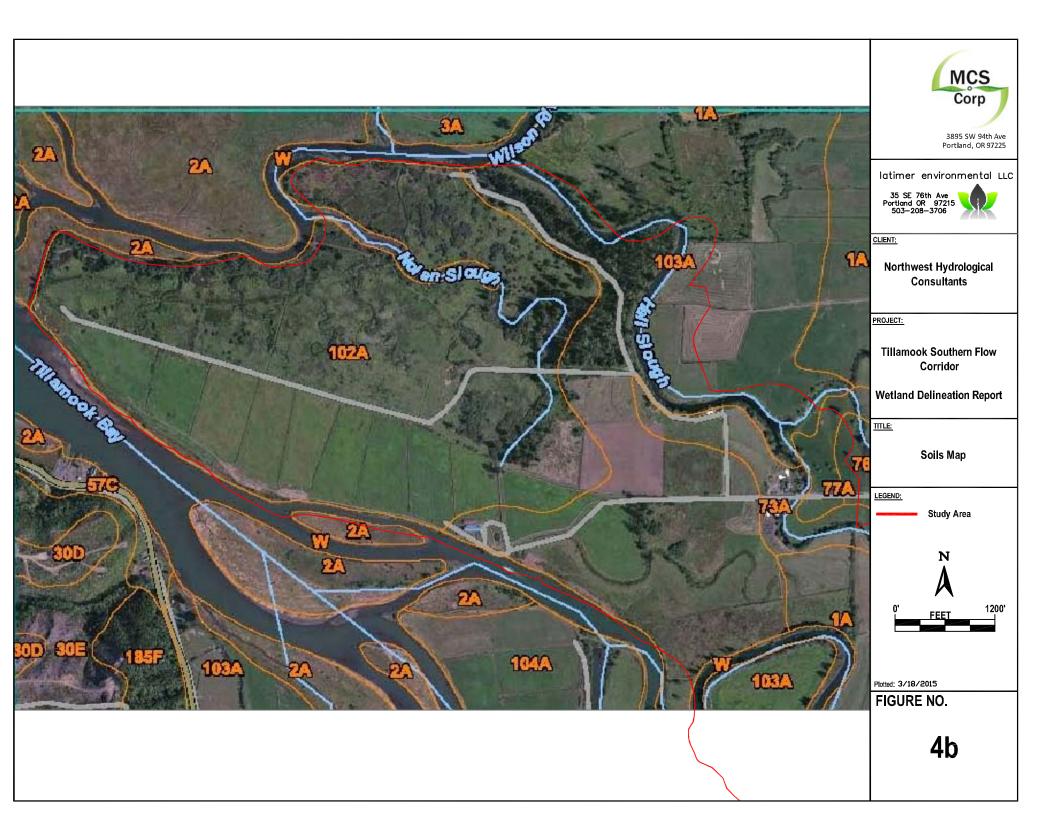


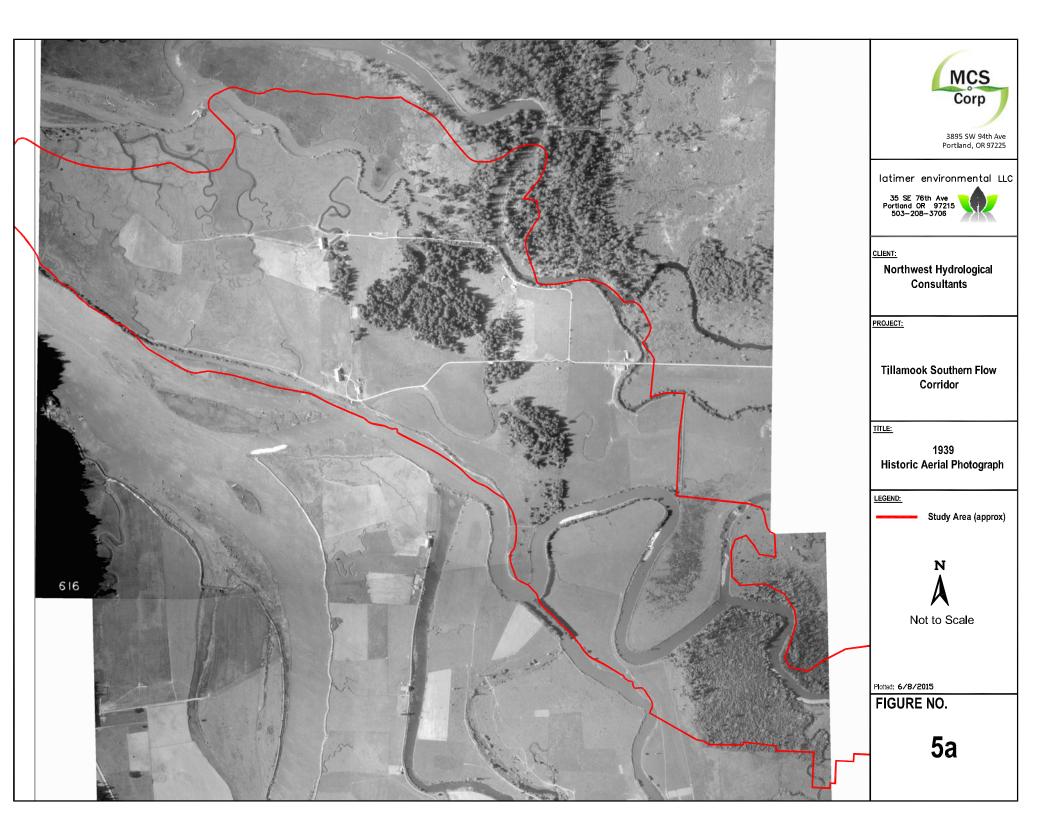


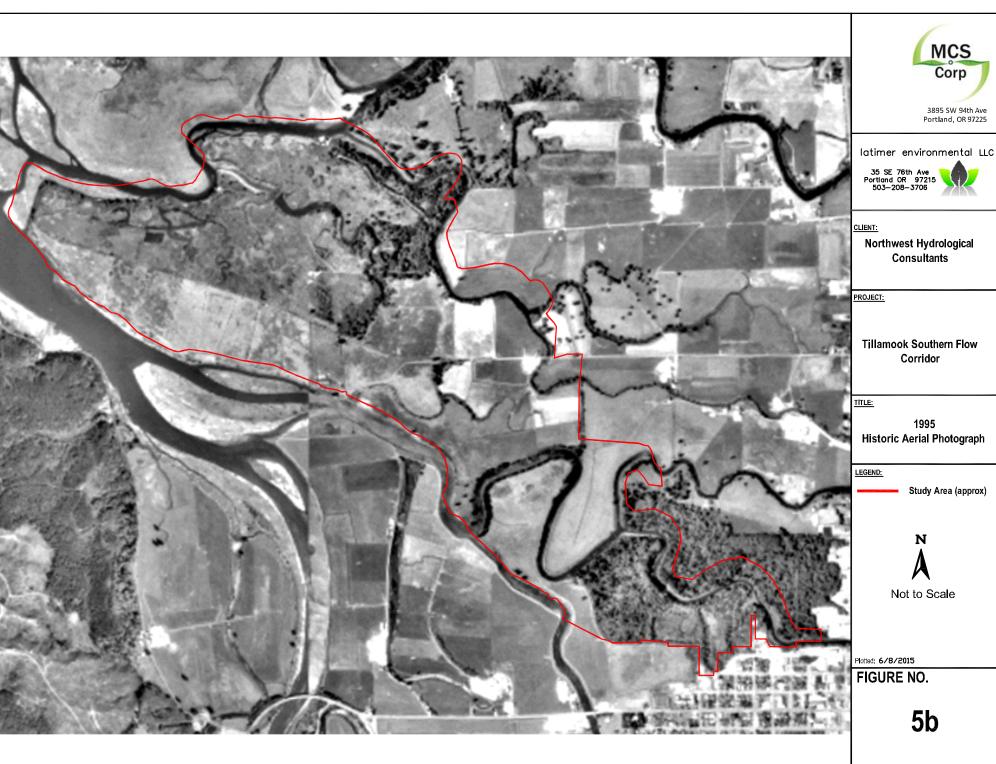










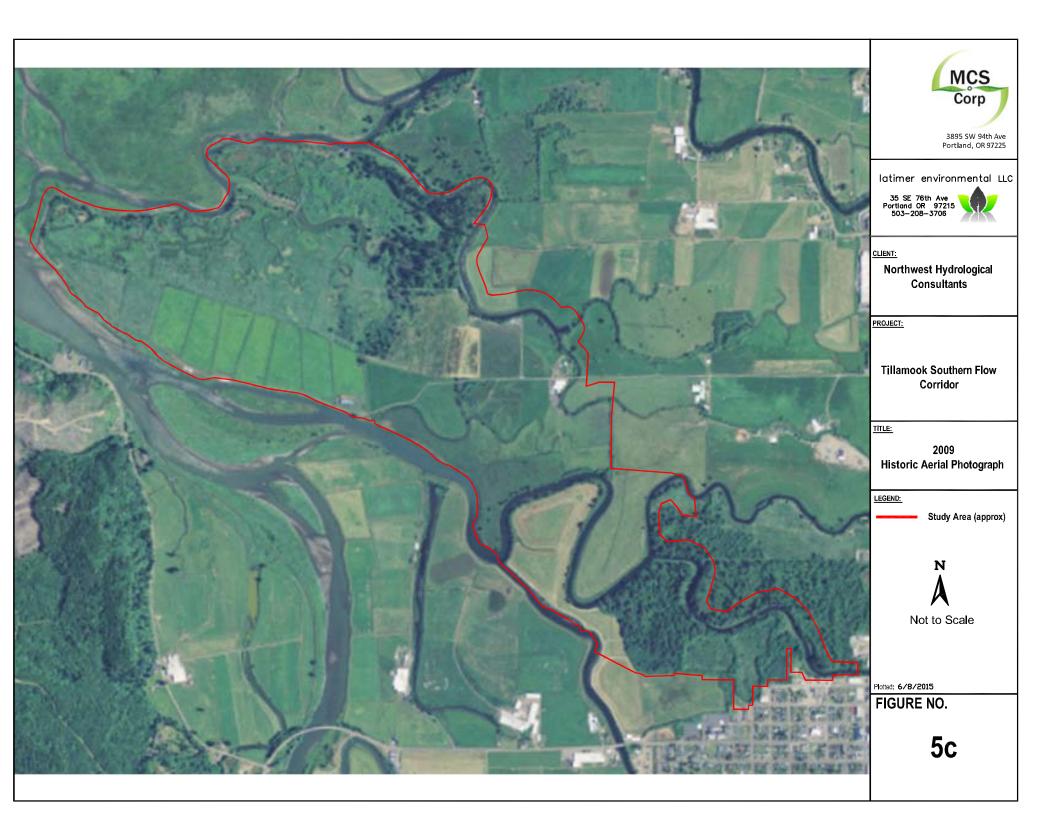


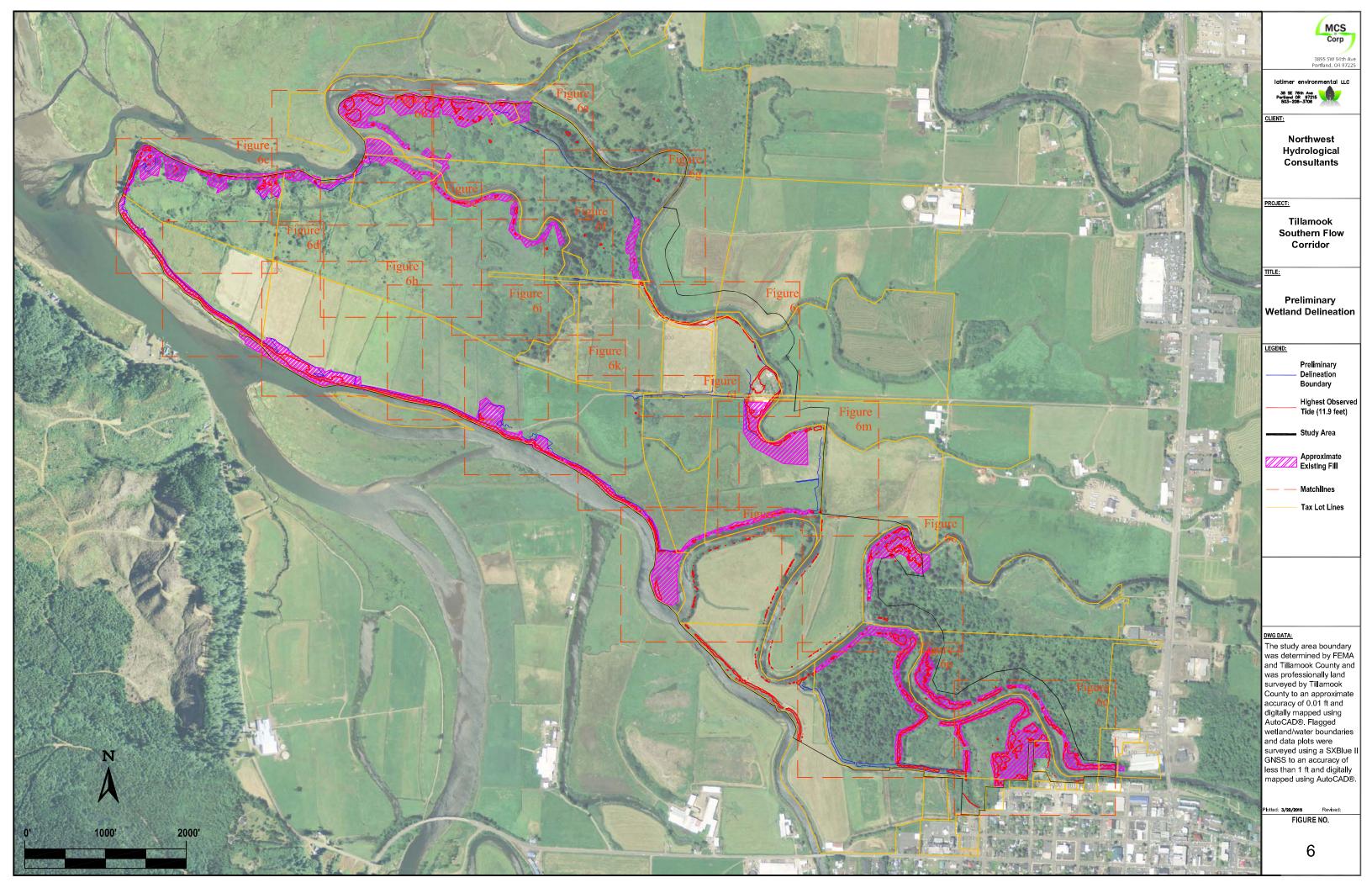


3895 SW 94th Ave Portland, OR 97225

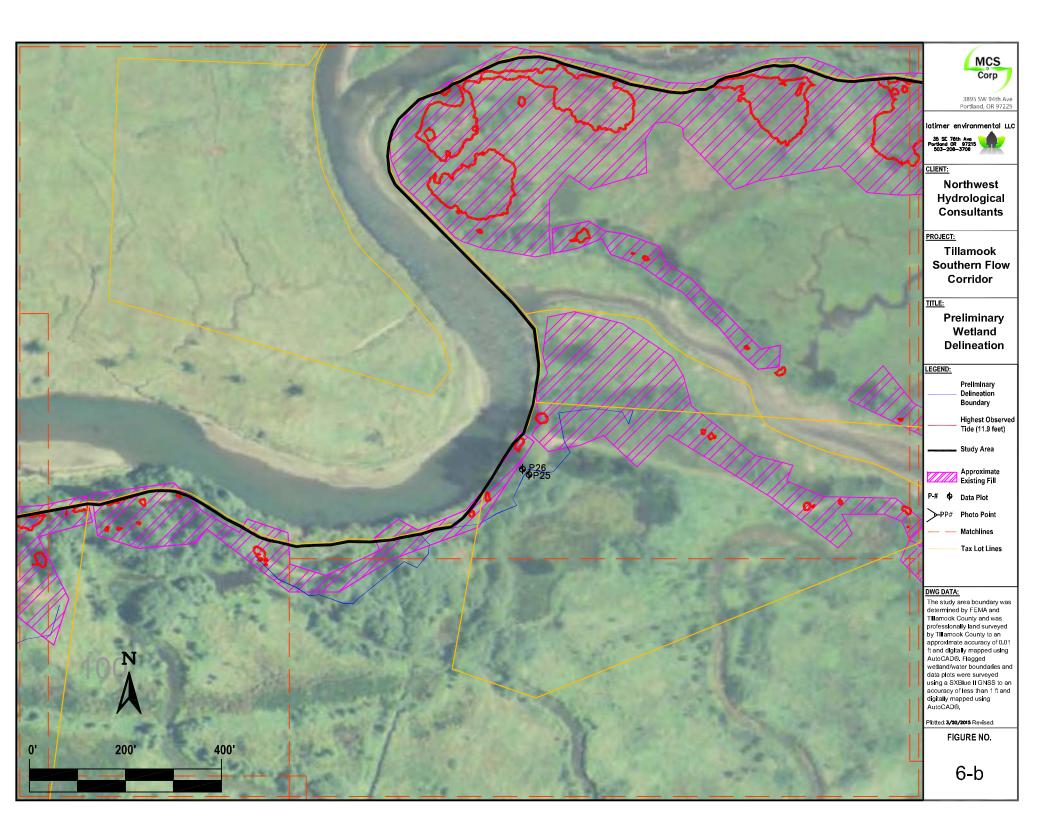


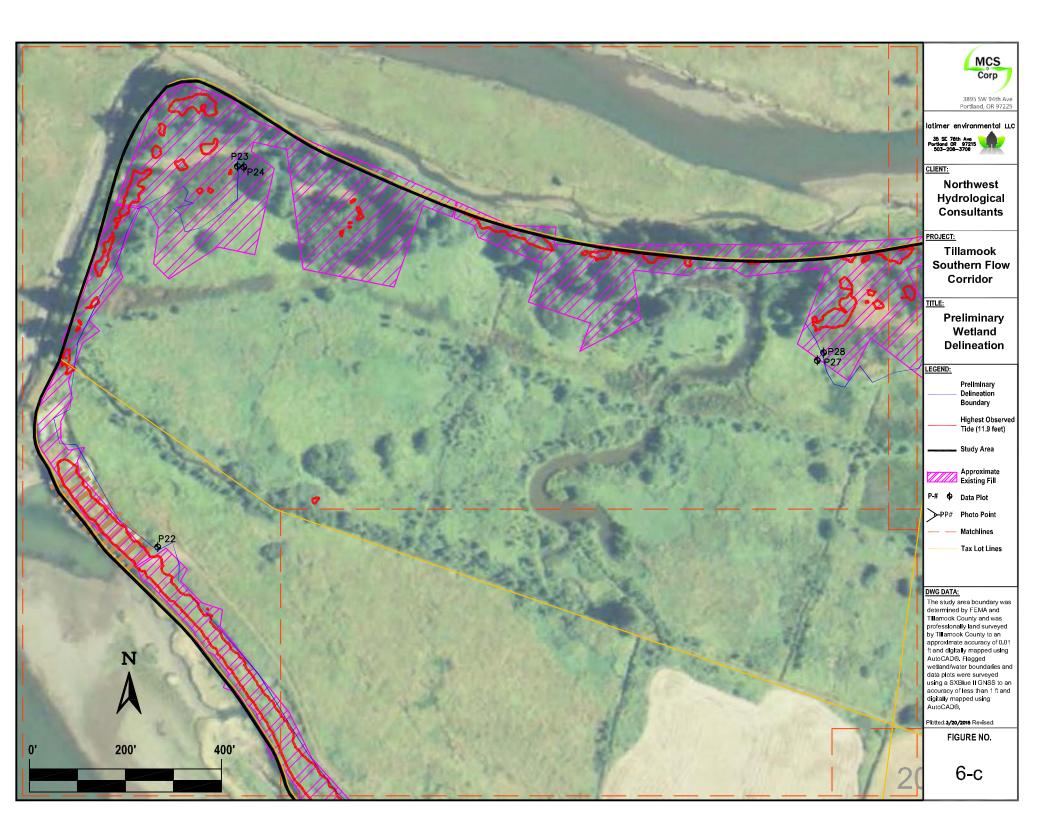
Historic Aerial Photograph



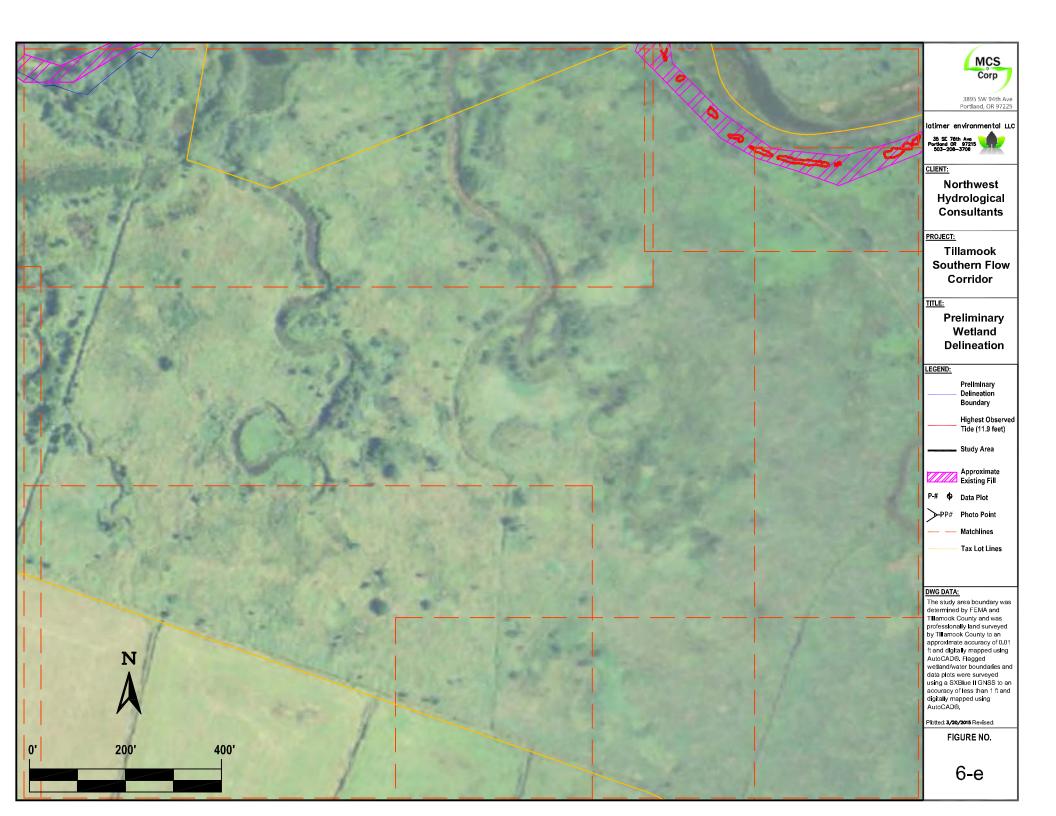


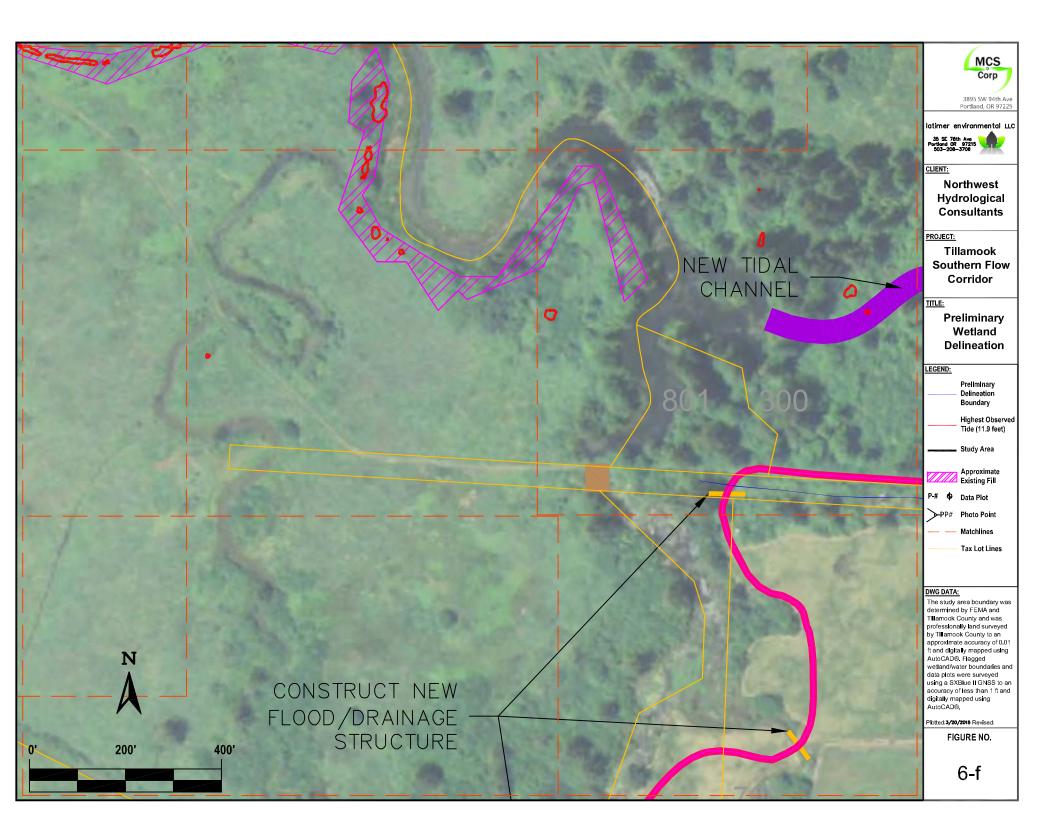


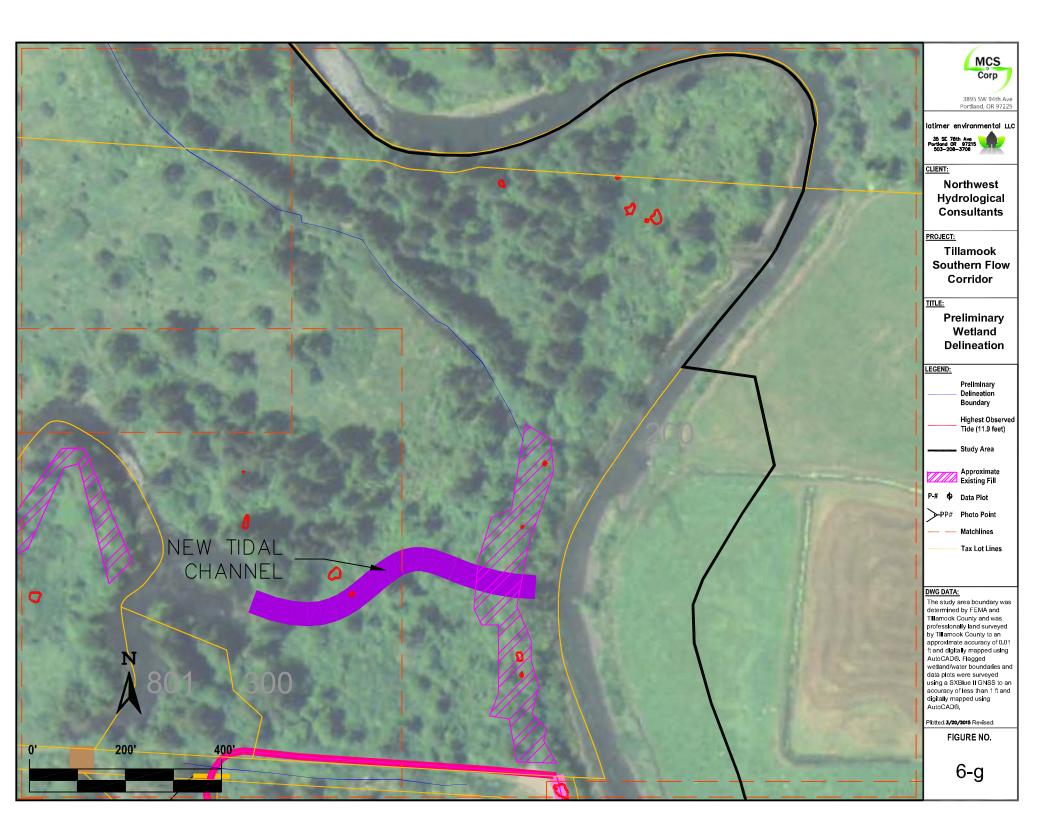


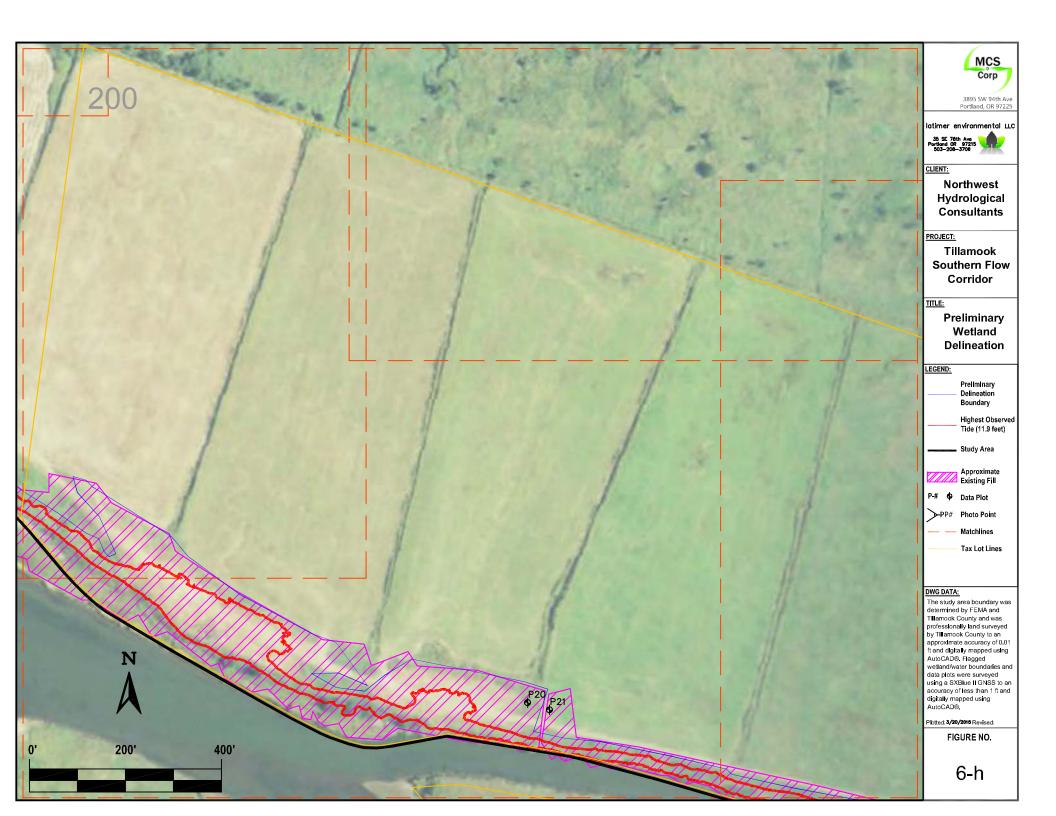


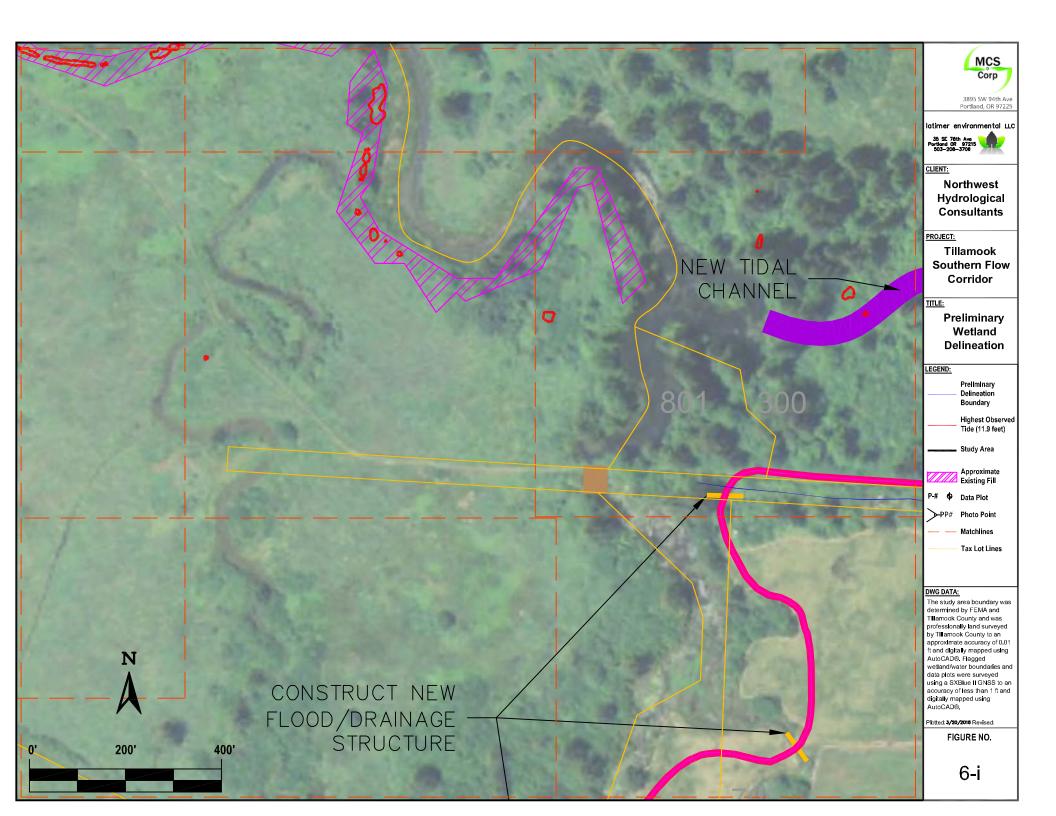


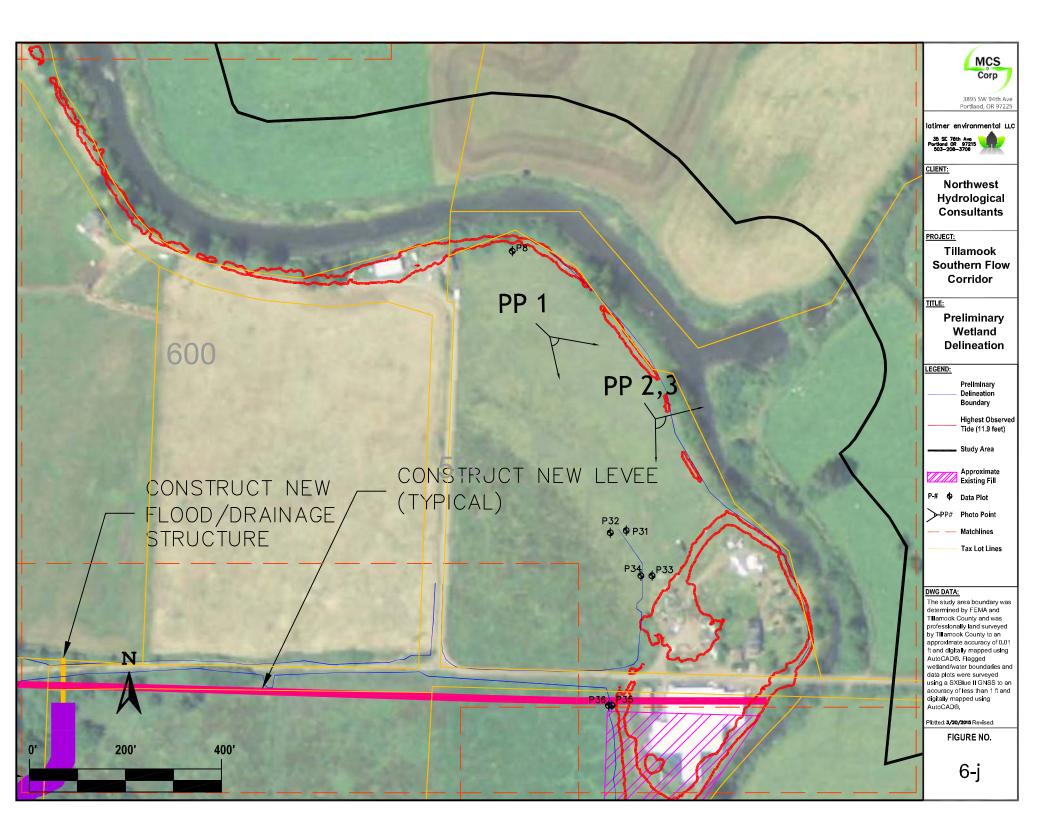


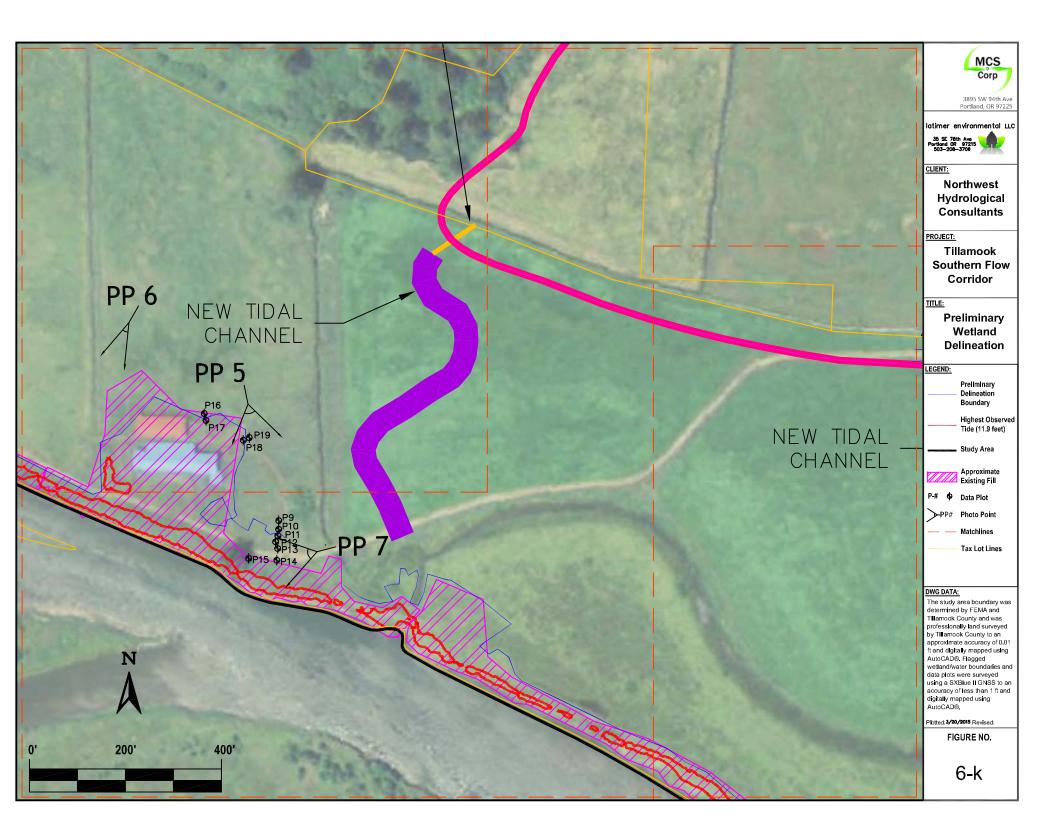


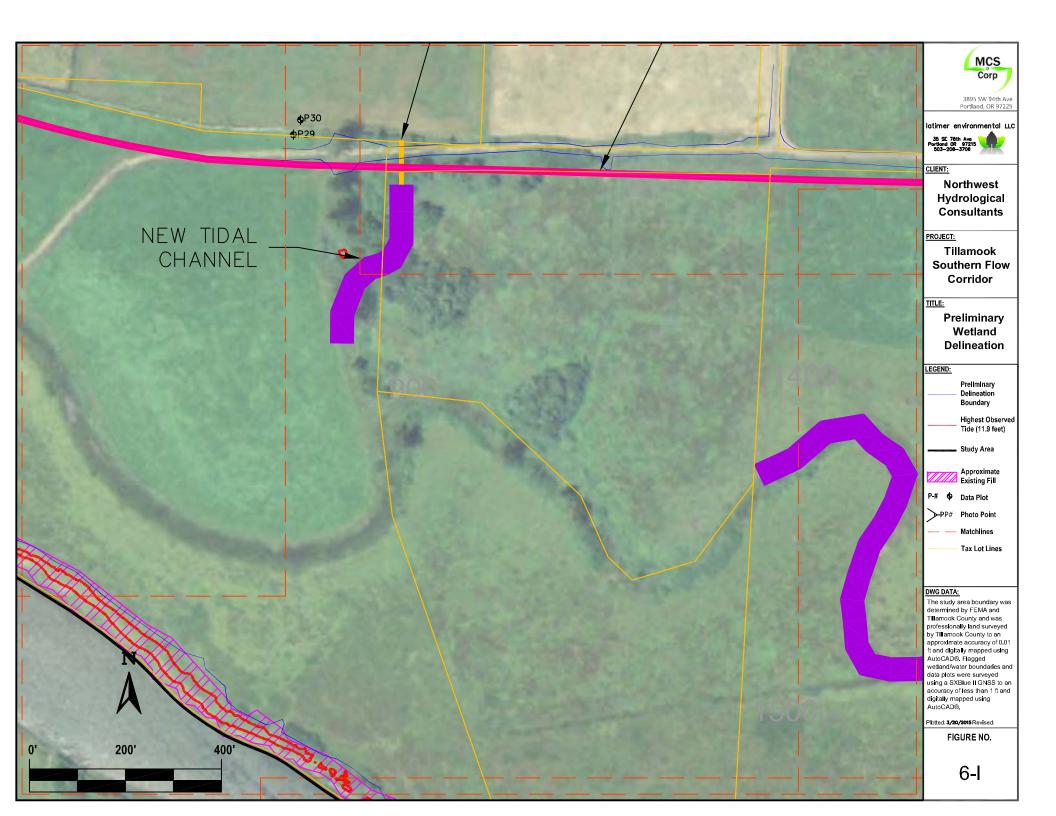


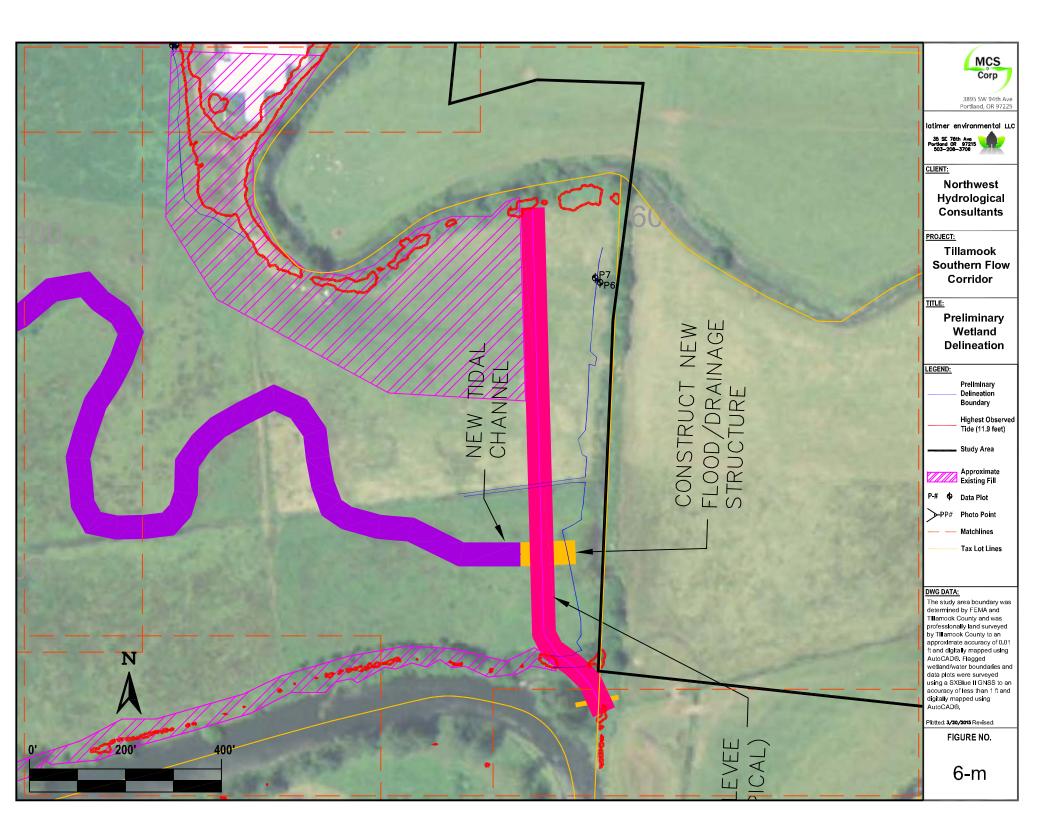




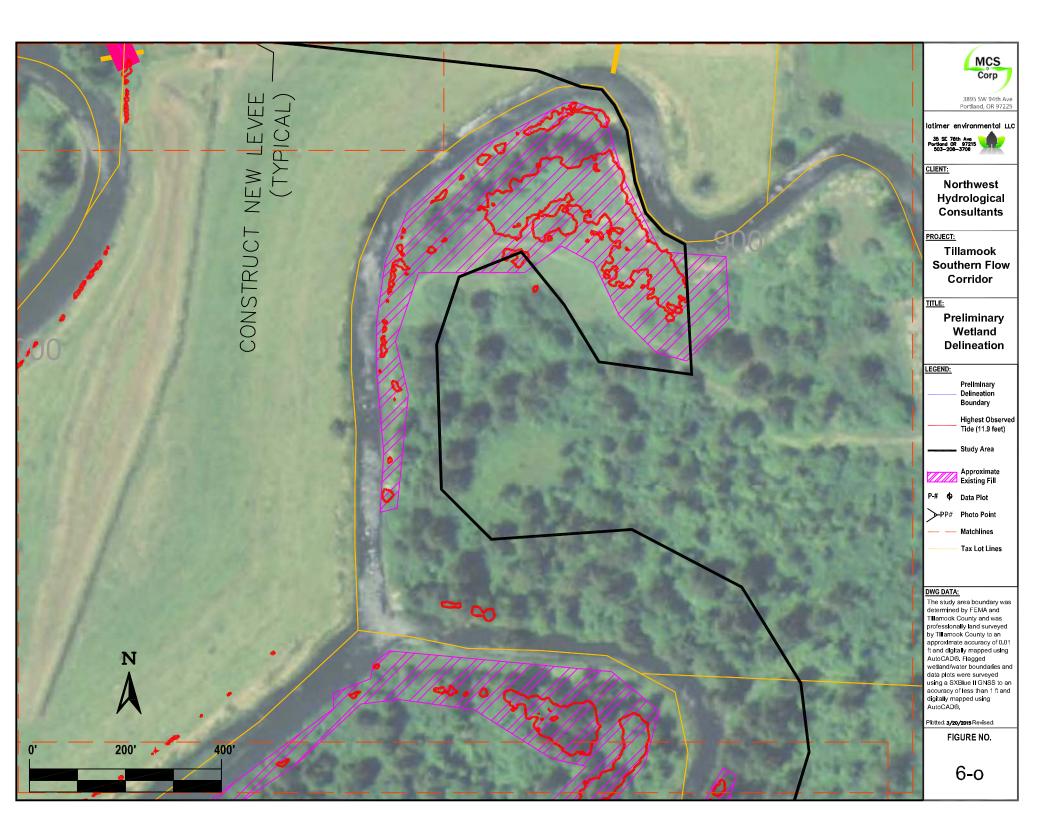


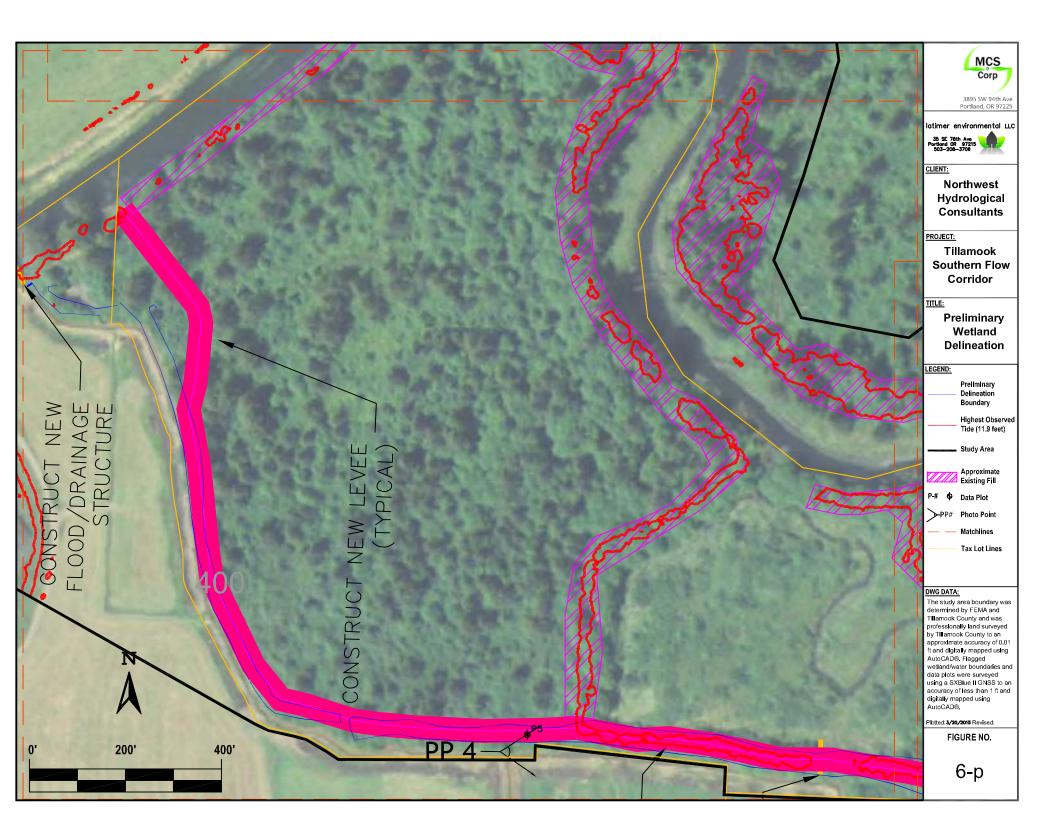


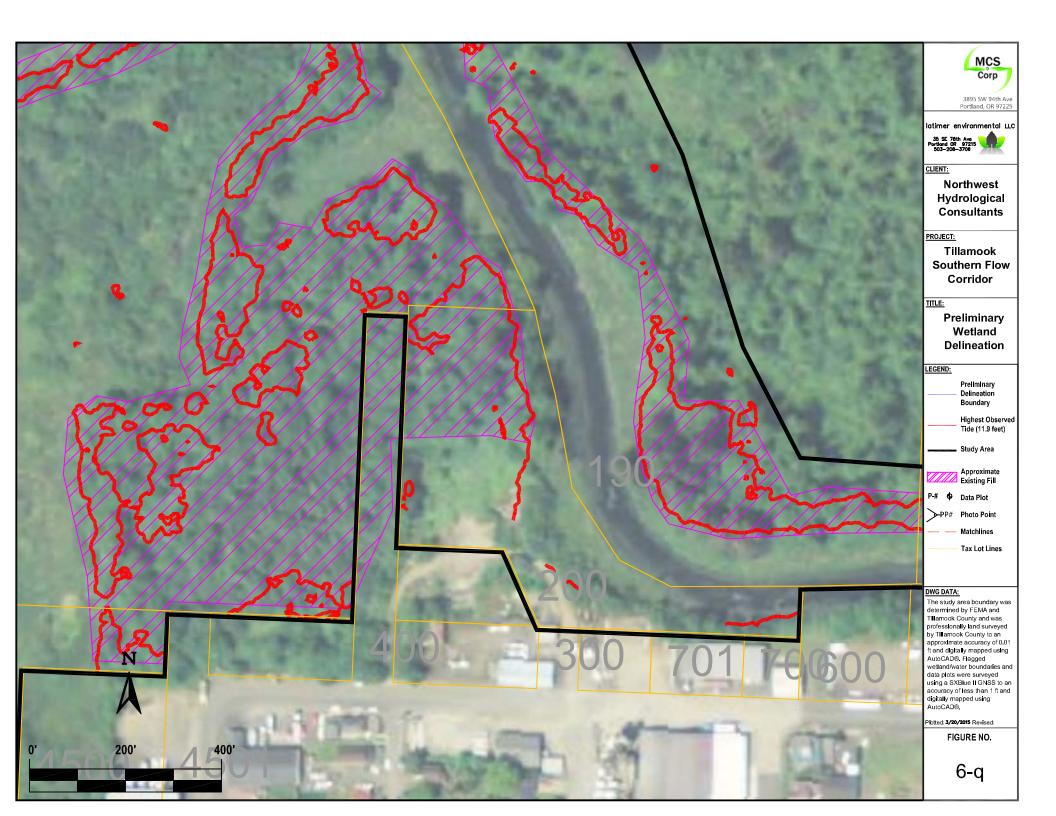












# Appendix B.

## **Data Forms**

Project/Site: Tillamook - Southern Flow Corridor		City/County	: Tillamook			Samp	pling Date:	7/15/2014
Applicant/Owner: Tillamook County					State: OR	Samp	pling Point: P-1	
nvestigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	nip, Range:	1S 10W Sec 25			
andform (hillslope, terrace, etc.): diked floodplain		Loca	I relief (conca	ave, convex	none): concave		Slope (%)	: 0-5%
Subregion (LRR): NW Forests and Coasts (LRR A)	Lat:			45.460167	Long:	-123.8		n: NAD27
Soil Map Unit Name: (3A) Coquille silt loam	-				NWI Classification:			
Are climatic / hydrologic conditions on the site typical for t	his time of	vear?	Yes 2	X	No	(If no, e	xplain in Remark	s)
Are Vegetation, Soil, or Hydrology			_		ormal Circumstance			
Are Vegetation, Soil, or Hydrology					d, explain any ansv		·	
SUMMARY OF FINDINGS – Attach site map				ations, tra	nsects, importa	ant feat	tures, etc.	
Hydrophytic Vegetation Present? Yes X No	)	lo the C	amalad Aras	_				
Hydric Soil Present? Yes X No			ampled Area a Wetland?	a	Yes X	No		
Wetland Hydrology Present? Yes X No		Within	a Welland:					
VEGETATION								
	Absolute	Dominant	Indicator	Dominano	e Test worksheet:			
- 0	% Cover	Species?	Status?		Dominant Species			
<u>(Use scientific names.)</u>					FACW, or FAC:	IIIat	_	
l					•		4	(A)
2		-	<del></del>		ber of Dominant cross All Strata:		_	<b>(D)</b>
3				Openies A	oross Air Otrata.		5	(B)
Total Cover:					Dominant Species FACW, or FAC:	That —	80%	(A/B)
Shrub Stratum				Prevalenc	e Index Workshee	t:		
1. Salix lasiandra	60	Υ	FACW		I % Cover of:		Multiply by:	
2. Sambucus racemosa	30	Υ	FACU	OBL speci		x1 =	0	
3.			-	FACW spe		x2 =	0	
4.				FAC speci		x3 =	0	
5.			-	FACU spe		x4 =	0	
Total Cover:	90		-	UPL speci		x5 =	0	
Herb Stratum				Column To		(A)	0	(B)
1. Athyrium filix-femina	20	Υ	FAC		ence Index = B/A =		#DIV/0!	` '
2. Ranunculus repens	20	Υ	FAC					
3. Carex obnupta	10	Y	OBL	Hydrophy	tic Vegetation Indi	cators:		
1.		-		X	Dominance Test is			
5.				#DIV/0!	Prevalence Index i	s ≤3.0 <sup>1</sup>		
S.					Morphological Ada	ntation 1	(Provide supporti	ina
7.					data in Remarks o			'''9
3.					Problematic Hydro	phytic Ve	egetation¹ (Expla	in)
Total Cover:	50				•	. ,		,
Woody Vine Stratum  1.				<sup>1</sup> Indicators present.	of hydric soil and w	etland h	ydrology must b	e
2				Hydrophy	tic			
Total Cover:				Vegetatio	n			
	Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks:								

(inches)	Color (moist)	%	Color (r	noist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	10YR 3/3	90	7.5YR 3/4		C	M	SiCl	
	10YR 3/1	70	5YR 3/4	30		M	SiCl	many organics
<sup>1</sup> Type: C=Co	oncentration, D=Dep	letion, RI	M=Reduce	d Matrix, CS=Cov	vered or C	oated Sa	and Grains. <sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to a	ıll LRRs, u	ınless otherwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histoso	` '			Sandy Redox (S	•			2 cm Muck (A10) ( <b>LRR B</b> )
	Epipedon (A2)			Stripped Matrix (	-			Red Parent Material (TF2)
	Histic (A3)			Loamy Mucky Mi		-	MLRA 1)	Other (Explain in Remarks)
·	gen Sulfide (A4)	(0.4.4)		Loamy Gleyed M	, ,			Very Shallow Dark Surface (TF12)
	ed Below Dark Surfa	ce (A11)		Depleted Matrix (			3lndiaatam	s of hydrophytic vegetation and
	Dark Surface (A12) Muck Mineral (S1)		<u>X</u>	Redox Dark Surf Depleted Dark So		'\		I hydrology must be present,
	gleyed Matrix (S4)			Redox Depression	,	,		s disturbed or problematic.
	Layer (if present):			Trough Bepression	) (1 0)		dilloo	o distance of problematic.
Type:								
Type: Depth (inche	es):					H	ydric Soil Presen	t? Yes <u>X</u> No
Depth (inche	es):					H	ydric Soil Presen	t? Yes X No
Depth (inche						Н	ydric Soil Presen	t? Yes X No
Depth (inche Remarks:						H	ydric Soil Presen	t? Yes X No
Depth (inche Remarks: HYDROLOGY Wetland Hyd	,		ufficient)			H		Yes X No
Depth (inche Remarks: HYDROLOGY Wetland Hyd Primary India	drology Indicators:		ufficient)	Water-Stained Le	eaves (B9			
Depth (inche Remarks:  HYDROLOGY  Wetland Hyd  Primary Indic  Surface  High W	drology Indicators: cators (any one indic e Water (A1) /ater Table (A2)		ufficient)	1, 2, 4A and				Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B)
Depth (inche Remarks: HYDROLOGY Wetland Hyd Primary India Surface High W	drology Indicators: cators (any one indic e Water (A1) /ater Table (A2) tion (A3)		ufficient)	1, 2, 4A and 4 Salt Crust (B11)	4B)	) (excep		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10)
HYDROLOGY Wetland Hyde Primary Indice Surface High W Saturat Water N	drology Indicators: cators (any one indic e Water (A1) /ater Table (A2) tion (A3) Marks (B1)		ufficient)	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr	<b>4B</b> ) rates (B13	) (excep		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inche Remarks:  HYDROLOGY  Wetland Hyde  Primary Indic  Surface  High W  Saturat  Water M  Sedime	drology Indicators: cators (any one indice e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	<b>4B</b> ) rates (B13 e Odor (C1	) (excep	t MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Depth (inche Remarks:  HYDROLOGY  Wetland Hyden  Primary India  Surface  High W  Saturat  Water N  Sedime  Driff De	drology Indicators: cators (any one indice e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	<b>4B</b> ) rates (B13 e Odor (C1 pheres alo	) (excep	t MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Depth (inche Remarks:  HYDROLOGY  Wetland Hyde  Primary Indic  Surface  High W  Saturat  Water N  Sedime  Drift De	drology Indicators: cators (any one indice e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red	rates (B13 e Odor (C1 pheres alo	) (excep ) I) ing Living (C4)	t MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Depth (inche Remarks:  HYDROLOGY Wetland Hyde Primary Indice Surface High W Saturat Water M Sedime Drift De Algal M Iron De	drology Indicators: cators (any one indice Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red	rates (B13 e Odor (C1 pheres alo uced Iron uction in P	) (excep ) l) lng Living (C4)	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inche Remarks:  HYDROLOGY  Wetland Hyde  Primary Indic  Surface  High W  Saturat  Water M  Sedime  Drift De  Algal M  Iron De  Surface	drology Indicators: cators (any one indice Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6)	eator is su		1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress	rates (B13 e Odor (C1 pheres alo luced Iron luction in P sed Plants	) (excep ) I) Ing Living (C4) Plowed S	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY Wetland Hyde Primary Indice Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S	drology Indicators: cators (any one indice Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5)	cator is su		1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red	rates (B13 e Odor (C1 pheres alo luced Iron luction in P sed Plants	) (excep ) I) Ing Living (C4) Plowed S	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inche Remarks:  HYDROLOGY  Wetland Hyde  Primary Indic  Surface  High W  Saturat  Water N  Sedime  Drift De  Algal M  Iron De  Surface  Water-S	drology Indicators: cators (any one indice Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9)	cator is su		1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress	rates (B13 e Odor (C1 pheres alo luced Iron luction in P sed Plants	) (excep ) I) Ing Living (C4) Plowed S	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indice  Primary Indice  Primary Indice  High W Saturat  Water M Sedime  Drift De Algal M Iron De Surface  Water-S Sparse	drology Indicators: cators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicators) dater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concators evations: error Present?	ve Surfac	X 	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	rates (B13 e Odor (C1 pheres alo luced Iron luction in P sed Plants Remarks	) (excep ) I) Ing Living (C4) Plowed S	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indice  Primary Indice  Primary Indice  High W Saturat  Water M Sedime  Drift De Algal M Iron De Surface Water-S Sparse  Field Obser Surface Water table M	drology Indicators: cators (any one indice Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar vations: er Present? Yes Present? Yes	ve Surfac		1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	rates (B13 e Odor (C1 pheres alo uced Iron uction in Psed Plants Remarks	) (excep ) I) Ing Living (C4) Plowed S	g Roots (C3) oils (C6)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary India  Primary India  Surface High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse  Field Obser Surface Water table If Saturation Primary India	drology Indicators: cators (any one indicators (any one indicator (any one indicator (any one indicator)) data or Crust (B4) eposits (B5) data or Crust (B4) eposits (B5) de Soil Cracks (B6) Stained Leaves (B9) day Vegetated Concators evations: der Present? Present? Ves	ve Surfac	X 	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	rates (B13 e Odor (C1 pheres alo uced Iron uction in Psed Plants Remarks	) (excep ) I) Ing Living (C4) Plowed S	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Depth (inche Remarks:  HYDROLOGY Wetland Hyde Primary Indic Surface High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse Field Obser Surface Water table If Saturation Pe (includes cap	drology Indicators: cators (any one indicators (any one indicator (any one indicator (any one indicator)) data or Crust (B4) eposits (B5) data or Crust (B4) eposits (B5) de Soil Cracks (B6) Stained Leaves (B9) day Vegetated Concators evations: der Present? Present? Ves	ve Surfac	X	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in  Depth (inches) Depth (inches)	rates (B13 e Odor (C1 pheres alouced Iron uction in Pesed Plants Remarks	) (excep ) ing Living (C4) Plowed S (D1) (LI	t MLRA g Roots (C3) oils (C6) RR A) Wetland Hydro	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Depth (inche Remarks:  HYDROLOGY Wetland Hyde Primary Indic Surface High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse Field Obser Surface Water table M Saturation Po (includes cap Describe Reco	drology Indicators: cators (any one indice Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar vations: er Present? Yes Present? Yes present? Yes pillary fringe)	ve Surfac	X  X  Be (B8)  No X  No X  No X  No X  No initoring we	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in  Depth (inches) Depth (inches) Depth (inches)	rates (B13 e Odor (C1 pheres alouced Iron uction in Pesed Plants Remarks	) (excep ) ing Living (C4) Plowed S (D1) (LI	t MLRA g Roots (C3) oils (C6) RR A) Wetland Hydro	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook				Samp	ling Da	ite:	7/15/2014
Applicant/Owner:	Tillamook County						State:	OR	Samp	ling Po	int: P-2	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W	/ Sec 25	_			
Landform (hillslop	e, terrace, etc.):	diked floodplain		Loca	l relief (conca	ave, convex	, none):	convex			Slope (%):	0-5%
Subregion (LRR):	Columbia Plateau (	LRR B)	Lat:									NAD27
Soil Map Unit Nar								ssification:				
•	ologic conditions on		his time of v	/ear?	Yes	-				olain ir	n Remarks)	
	, Soil				_			cumstance	_			
Are Vegetation		, or Hydrology						in any ansv				
7 ne vegetation	, con	, or rivarology		naturally pr	obicinatio:	(11 110000	за, схріа	iii ariy ariov	voio iii i to	marks.	,	
SUMMARY OF	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects	s, import	ant feat	ures,	etc.	
Hydrophytic Vege	tation Present?	Yes X No	)									
Hydric Soil Prese			X		ampled Area	1	Yes		No X			
Wetland Hydrolog			X	within	a Wetland?							
-	t north of P-1, upslop											
T lot located 5 loc	thorar or i it, apolop	<b>c</b> .										
VEGETATION												
			Absolute	Dominant	Indicator	Dominan	ce Test v	worksheet:	<u> </u>			
Tree Stratum (L	Jse scientific names.)	)	% Cover	Species?	Status?			int Species				
1.	·					That Are C	DBL, FAC	CW, or FAC	<b>;</b> :	;	3	(A)
2.						Total Num	ber of D	ominant				• ` ′
3.						Species A	cross All	Strata:			4	(B)
4.						Dercent of	Domina	nt Species	That			. ` '
		Total Cover:			· ———	Are OBL,			Παι	75	5%	(A/B)
										-		
Shrub Stratum						Prevalenc	e Index	Workshee	t:			
1. Sambucus race	emosa		50	Υ	FACU	Tota	al % Cov	er of:		Multir	oly by:	
2. Salix lasiandra			20	Y	FACW	OBL spec	ies		x1 =		0	•
3.						FACW spe	ecies		x2 =		0	•
4.						FAC spec	ies		x3 =	-	0	•
5.						FACU spe			x4 =	-	0	•
		Total Cover:	70			UPL speci	es		x5 =		0	•
Herb Stratum						Column To	otals:	0	(A)		0	(B)
1. Tolmiea menzi	esii		40	Υ	FAC	Preva	lence Inc	dex = B/A =	- ' '	#DIV/	0!	. ` '
2. Athyrium filix-fe	emina		20	Y	FAC							•
3. Poa trivialis			15		FAC	Hydrophy	tic Vege	tation Indi	cators:			
4. Ranunculus re	pens		10		FAC	X	_	nce Test is				
5. Hydrophyllum i			10		FAC	#DIV/0!	Prevale	nce Index i	s ≤3.0 <sup>1</sup>			
6.	•						Morpho	logical Ada	ntation 1 (	Drovida	a cupporting	<b>a</b>
7.					· ———			Remarks o				3
8.					· ———			natic Hydro	•		,	)
		Total Cover:	70		· ———			,	. ,	,	` .	,
Woody Vine St	<u>ratum</u>					<sup>1</sup> Indicators	of hydri	c soil and w	vetland hy	'drolog	y must be	
1						present.						
2		Total Cover:	140		·	Hydrophy						
0/ Pa	ro Cround in Horb Ct			otio Cruot	0	Vegetatio Present?	n		Voc V		No	
	re Ground in Herb St		Cover of Bio	olic Crust	0	Present?			Yes X		No	
Remarks:												

Profile Des	scription: (Describe	to the de	_			ator or	confirm the absence	ce of indicators.)
Depth	Matrix			edox Feat			<u> </u>	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc		Remarks
0-14	10YR 3/2	90	10YR 3/3	10	С	M	SiCl	
14-18	2.5Y 4/3	60	7.5YR 4/6	40	С	M	SiCl	
								-
<sup>1</sup> Type: C=0	Concentration, D=Dep	letion, RI		x, CS=Cov	ered or C	Coated	Sand Grains. <sup>2</sup> Locat	tion: PL=Pore Lining, M=Matrix.
Hydric Soil	I Indicators: (Application	able to a	II I RRs. unless	otherwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
=	ol (A1)			Redox (S	-			2 cm Muck (A10) (LRR B)
	Epipedon (A2)			ed Matrix (				Red Parent Material (TF2)
	Histic (A3)					) (eyce	pt MLRA 1)	Other (Explain in Remarks)
	gen Sulfide (A4)			, Macky M , Gleyed M	•		pt III	Other (Explain in Remarks)
	gen Sunde (A4) ted Below Dark Surfac	re (Δ11)		ted Matrix		-,		
		Æ (A11)					3Indianta-	s of hydrophytic vegetation and
	Dark Surface (A12)  Muck Mineral (S1)			Dark Surf ted Dark S		7)		I hydrology must be present,
						1)		,
	gleyed Matrix (S4)  Layer (if present):		Redox	Depression	ons (F8)		unies	s disturbed or problematic.
	, , ,							
Type: Depth (inch	es).						Hydric Soil Present	t? Yes No X
Remarks: Org								165 <u></u> 166 <u>X</u>
HYDROLOG	v							
	ydrology Indicators:							
_	= -	otor io ou	fficient)					Secondary Indicators (2 or more required)
	icators (any one indicators (A4)	ator is su		Ctained L		2) (2222		Secondary Indicators (2 or more required)
	ce Water (A1)			-Stained Lo	•	9) ( <b>exc</b> e	ept WILKA	Water-Stained Leaves (B9) (MLRA 1, 2,
	Vater Table (A2)			2, 4A and	4B)			4A and 4B)
	ation (A3)			rust (B11)	1 (D40	٥١		Drainage Patterns (B10)
	Marks (B1)			c Invertebi				Dry-Season Water Table (C2)
	ent Deposits (B2)			gen Sulfide				Saturation Visible on Aerial Imagery (C9)
	eposits (B3)			-		_	ng Roots (C3)	Geomorphic Position (D2)
	Mat or Crust (B4)			nce of Red		. ,		Shallow Aquitard (D3)
	eposits (B5)			t Iron Red				FAC-Neutral Test (D5)
	ce Soil Cracks (B6)			d or Stress			LKR A)	Raised Ant Mounds (D6) (LRR A)
	-Stained Leaves (B9)			(Explain in	Remarks	s)		Frost-Heave Hummocks (D7)
	ely Vegetated Concav	e Surfac	e (B8)				1	
Field Obse Surface Wa	iter Present? Yes		No X Dep	th (inches)	:			
Water table				th (inches)				
Saturation F				th (inches)			Wetland Hydrol	logy Present? YesNo X
•	apillary fringe)						1	
Describe Rec	orded Data (stream ga	auge, mo	nitoring well, aeri	al photos,	previous	inspect	ons), if available:	

Project/Site: Tillamook - Southern Flow Corridor		City/County	: Tillamook		Sampling [	Date:	7/15/2014
Applicant/Owner: Tillamook County				State: OR	Sampling F	Point: P-3	
Investigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	ip, Range: 1S 10W Sec 25	_		
Landform (hillslope, terrace, etc.): diked floodplain		Loca	I relief (conca	ave, convex, none): concave		Slope (%):	0-5%
Subregion (LRR): NW Forests and Coasts (LRR A)	Lat:	<u>-</u>		45.460167 Long:		_	: NAD27
Soil Map Unit Name: (3A) Coquille silt loam				NWI Classification:		<del>_</del>	
Are climatic / hydrologic conditions on the site typical for	this time of y	ear?	Yes 2			in Remarks	3)
Are Vegetation, Soil, or Hydrology	-	significantly	disturbed?	Are "Normal Circumstance	es" Present?	Yes X	No
Are Vegetation , Soil , or Hydrology							
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	ations, transects, import	ant features	s, etc.	
Hydrophytic Vegetation Present? Yes X No	)	Is the S	ampled Area	<u>.</u>			
Hydric Soil Present? Yes X No	)		ampied Area	Yes X	No		
Wetland Hydrology Present? Yes X No	)						
Approximately 50 feet north of berm road, north of hospital specific section of the specific section o							
	Absolute	Dominant	Indicator	Dominance Test worksheet			
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Species	: That		
1. Picea sitchensis	90	Y	FAC	Are OBL, FACW, or FAC:		3	(A)
2. Alnus rubra	60	Y	FAC	Total Number of Dominant		<u> </u>	_ (八)
3.				Species Across All Strata:		4	(B)
4				Dorgant of Dominant Chasins	That	•	_(5)
Total Cover:	150			Percent of Dominant Species Are OBL, FACW, or FAC:		75%	_(A/B)
Shrub Stratum				Prevalence Index Workshee			
1. Sambucus racemosa	10	Υ	FACU	Total % Cover of:		Itiply by:	
2. Rubus spectabilis	5	Υ	FAC	OBL species	x1 =	0	_
3.					x2 =	0	_
4.					x3 =	0	_
5.		,		FACU species	x4 =	0	_
Total Cover:	15			UPL species	x5 =	0	_
Herb Stratum				Column Totals: 0	(A)	0	(B)
1				Prevalence Index = B/A =	=#DI	V/0!	<u> </u>
2			_				
3				Hydrophytic Vegetation Ind	icators:		
4				X Dominance Test is	s >50%		
5				#DIV/0! Prevalence Index	is ≤3.0 <sup>1</sup>		
6				Morphological Ada			ng
7				data in Remarks o	•	•	
8				Problematic Hydro	ophytic Vegetat	ion¹ (Explaii	n)
Total Cover: Woody Vine Stratum				<sup>1</sup> Indicators of hydric soil and v	wetland hydrold	ogy must be	<b>:</b>
1			-	present.			
2				Hydrophytic			
Total Cover:		4:- 0	•	Vegetation	V V	N -	
% Bare Ground in Herb Stratum100 %	Cover of Bio	otic Crust	0	Present?	Yes X	_ No	
Remarks:							

Profile Des	scription: (Describe	to the de	pth needed	to document t	the indica	ator or o	confirm the absen	ce of indicators.)
Depth	Matrix			Redox Feat			_	
(inches)	Color (moist)	%	Color (mo	ist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-8	7.5YR 3/2	100					SiL	
8-16	10YR 4/2	70	7.5YR 3/4	30	C	М	SiCl	
							_	
<sup>1</sup> Type: C=0	Concentration, D=Dep	letion, RN	/=Reduced	Matrix, CS=Cov	ered or C	Coated S	and Grains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soi	I Indicators: (Applic	able to a	II LRRs, unl	ess otherwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histos	sol (A1)		S	andy Redox (S	5)			2 cm Muck (A10) (LRR B)
Histic	Epipedon (A2)		S	tripped Matrix (	S6)			Red Parent Material (TF2)
Black	Histic (A3)		Lo	oamy Mucky Mi	neral (F1)	) (excep	t MLRA 1)	Other (Explain in Remarks)
Hydro	gen Sulfide (A4)		Lo	oamy Gleyed M	atrix (F2)	)		Very Shallow Dark Surface (TF12)
Deple	ted Below Dark Surfa	ce (A11)	D	epleted Matrix (	(F3)			
Thick	Dark Surface (A12)		X R	edox Dark Surf	ace (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation and
Sandy	Muck Mineral (S1)		D	epleted Dark S	urface (F7	7)	wetland	d hydrology must be present,
Sandy	gleyed Matrix (S4)		R	edox Depressio	ns (F8)		unles	s disturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (inch	es):					F	lydric Soil Presen	t? Yes <u>X</u> No
Remarks:						<u></u>		
HYDROLOG'	Υ							
	ydrology Indicators:							
	licators (any one indic		fficient)					Secondary Indicators (2 or more required)
	ce Water (A1)			/ater-Stained Le	eaves (B9	) (exce		Water-Stained Leaves (B9) (MLRA 1, 2,
	Vater Table (A2)			1, 2, 4A and 4		, (		4A and 4B)
	ation (A3)		S	alt Crust (B11)	,			Drainage Patterns (B10)
	Marks (B1)			quatic Invertebr	ates (B13	3)		Dry-Season Water Table (C2)
	nent Deposits (B2)			ydrogen Sulfide				Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)			xidized Rhizos			ng Roots (C3)	Geomorphic Position (D2)
	Mat or Crust (B4)			resence of Red		-	· · /	Shallow Aquitard (D3)
	eposits (B5)			ecent Iron Red		. ,	Soils (C6)	FAC-Neutral Test (D5)
Surfac	ce Soil Cracks (B6)			tunted or Stress				Raised Ant Mounds (D6) (LRR A)
	-Stained Leaves (B9)			ther (Explain in				Frost-Heave Hummocks (D7)
	ely Vegetated Concav		e (B8)			,		·
Field Obse	rvations:						T	
	iter Present? Yes	s	No X	Depth (inches)	: <u></u>			
Water table			No X	Depth (inches)			l	
Saturation I		: <u>X</u>	No	Depth (inches)	: <u>11"</u>		Wetland Hydro	ology Present? Yes X No
•	apillary fringe) orded Data (stream g	auge. mo	nitorina well	aerial photos	previous i	inspection	ns), if available:	
Remarks: Plo	t at edge of wetland,	soils satu	ated within	10 feet of this p	lot.			

Project/Site: Tillamook - Southern Flow Corridor		City/County:	Tillamook		Sampling Date:	7/15/2014
Applicant/Owner: Tillamook County				State: OR	Sampling Point: P-4	
Investigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	ip, Range: <u>1S 10W Sec 25</u>		
Landform (hillslope, terrace, etc.): diked floodplain		Loca	I relief (conca	ave, convex, none): convex	Slope (%):	0-5%
Subregion (LRR): Columbia Plateau (LRR B)	Lat:		4	45.460167 Long:	-123.854029 Datum	: NAD27
Soil Map Unit Name: (3A) Coquille silt loam				NWI Classification:	PFOC	
Are climatic / hydrologic conditions on the site typical for	this time of y	/ear?	Yes 2	K No	(If no, explain in Remarks	s)
Are Vegetation, Soil, or Hydrology		significantly	disturbed?	Are "Normal Circumstance	es" Present? Yes X	No
Are Vegetation , Soil , or Hydrology						<u> </u>
SUMMARY OF FINDINGS – Attach site map						
Hydrophytic Vegetation Present? Yes X No.	0	Is the S	ampled Area	•		
Hydric Soil Present? YesN	o <u>X</u>		ampied Area a Wetland?	Yes	No X	
Wetland Hydrology Present? YesN	o <u>X</u>					
Plot located 12 feet southeast of P-3, upslope.						
VEGETATION						
	Absolute	Dominant	Indicator	Dominance Test worksheet	:	
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Species		
1. Picea sitchensis	100	Υ	FAC	That Are OBL, FACW, or FAC	): 4	(A)
2. Alnus rubra	60	Y	FAC	Total Number of Dominant		_
3.				Species Across All Strata:	6	(B)
4.				Percent of Dominant Species	That	_` ′
Total Cover	: 150			Are OBL, FACW, or FAC:	67%	_(A/B)
Shrub Stratum				Prevalence Index Workshee		
1. Rubus ursinus	20	Υ	FACU	Total % Cover of:	Multiply by:	
2				OBL species	x1 = <b>0</b>	_
3.		-		FACW species	x2 = <b>0</b>	
4		-		FAC species	x3 = <b>0</b>	
5.		-		FACU species	x4 = <b>0</b>	
Total Cover	: 20			UPL species	x5 = <b>0</b>	_
Herb Stratum				Column Totals: 0	(A) <b>0</b>	(B)
1. Tolmiea menziesii	30	Υ	FAC	Prevalence Index = B/A =	_(-, -,	_(D)
Polystichum munitum	5	Y	FACU	Trevalence index B/T	#51470.	_
3. Carex hendersonii	5	Y	FAC	Hydrophytic Vegetation Ind	icators:	
4.				X Dominance Test is		
5.			- ——	#DIV/0! Prevalence Index		
6.						
					aptation <sup>1</sup> (Provide supportin er on a separate sheet)	ng
8.			. ———		phytic Vegetation <sup>1</sup> (Explair	2)
Total Cover	: 40		. ———	1 Toblematic Hydro	priytic vegetation (Explain	')
Woody Vine Stratum  1				<sup>1</sup> Indicators of hydric soil and v present.	vetland hydrology must be	
2				Hydrophytic		
Total Cover	: 210			Vegetation		
% Bare Ground in Herb Stratum60 %	Cover of Bio	otic Crust	0	Present?	Yes X No	
Remarks:						

	(2000)		pui noodod				onfirm the absenc	c of illulcators.)
Depth	Matrix			Redox Feat			<u>.</u>	
(inches)	Color (moist)	<u>%</u>	Color (mo	ist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-13	7.5YR 2.5/2	80	7.5YR 3/4	20	С	М	Loam	
13-18	7.5YR 3/2	70	7.5YR 3/4	30	С	М	SiCl	
<sup>1</sup> Type: C=0	Concentration, D=Dep	oletion, RI	M=Reduced I	Matrix, CS=Cov	ered or C	oated Sa	ind Grains. <sup>2</sup> Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soi	I Indicators: (Applic	able to a	III LRRs, unl	ess otherwise	noted.)		Indicators for P	Problematic Hydric Soils <sup>3</sup> :
Histos	sol (A1)		S	andy Redox (S	5)			2 cm Muck (A10) ( <b>LRR B</b> )
Histic	Epipedon (A2)		S <sup>1</sup>	tripped Matrix (	S6)			Red Parent Material (TF2)
Black	Histic (A3)		Lo	oamy Mucky Mi	neral (F1)	(except	MLRA 1)	Other (Explain in Remarks)
Hydro	gen Sulfide (A4)		Lo	oamy Gleyed M	atrix (F2)	)	· <u></u>	
	ted Below Dark Surfa	ce (A11)		epleted Matrix (				
	Dark Surface (A12)	, ,		edox Dark Surf			<sup>3</sup> Indicators	of hydrophytic vegetation and
	Muck Mineral (S1)			epleted Dark Si		<b>'</b> )		hydrology must be present,
	y gleyed Matrix (S4)			edox Depressio	•	,		disturbed or problematic.
	Layer (if present):			<u>'</u>	,			·
Type:								
Depth (inch	nes):					Hy	dric Soil Present	? Yes No X
Remarks:								
HADBOI OG.	v							
HYDROLOG								
Wetland H	ydrology Indicators:		(finiont)					tocondon Undicatora (2 or more required)
Wetland H	ydrology Indicators: licators (any one indic			Vator Stained L	poves (PO	) (avaam		Secondary Indicators (2 or more required)
Wetland Hy Primary Ind Surface	ydrology Indicators: dicators (any one indic ce Water (A1)			/ater-Stained Le		) (excep		Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Ind Surface High V	ydrology Indicators: dicators (any one indic ce Water (A1) Water Table (A2)		W	1, 2, 4A and 4		) (excep	MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B)
Wetland Hy Primary Ind Surface High V	ydrology Indicators: dicators (any one indic ce Water (A1) Water Table (A2) ation (A3)		W	<b>1, 2, 4A and</b> 4 alt Crust (B11)	<b>4B</b> )		MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10)
Wetland Hyprimary Industrial Surface High V Satura Water	ydrology Indicators: dicators (any one indicators (A1) ce Water (A1) Water Table (A2) ation (A3)		W	<b>1, 2, 4A and 4</b> alt Crust (B11) quatic Invertebr	<b>4B</b> ) rates (B13	3)	MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hyprimary Ind Surface High V Satura Water Sedim	ydrology Indicators: dicators (any one indicators (A1) Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)			1, 2, 4A and 4 alt Crust (B11) quatic Invertebrydrogen Sulfide	<b>4B</b> ) rates (B13 e Odor (C1	s) 1)	MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D	ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3)		W	1, 2, 4A and 4 alt Crust (B11) quatic Invertebr ydrogen Sulfide xidized Rhizosp	tates (B13 e Odor (C1 oheres alo	i) 1) ong Living	g Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Head Primary Ind Surface High V Satura Water Sedim Drift D Algal	ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)		W	1, 2, 4A and 4 alt Crust (B11) quatic Invertebrydrogen Sulfide xidized Rhizospresence of Red	rates (B13 e Odor (C1 oheres alo uced Iron	i) 1) ong Living (C4)	g Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I	ydrology Indicators: dicators (any one indicators (A1) Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		W Si Ai H O Pi R	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Redecent Iron Rede	rates (B13 e Odor (C1 oheres alo uced Iron uction in P	i) 1) ong Living (C4) Plowed So	g Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Iron D Surface	ydrology Indicators: dicators (any one indicators (A1) Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6)	cator is su	W Si H O Pi R Si	1, 2, 4A and 4 alt Crust (B11) quatic Invertebrydrogen Sulfide xidized Rhizospresence of Redecent Iron Redutunted or Stress	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	g Roots (C3) poils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal Iron D Surface Water	ydrology Indicators: dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) C-Stained Leaves (B9)	cator is su	W Si Ai O Pi R Si O	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Redecent Iron Rede	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	g Roots (C3) poils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Spars	ydrology Indicators: dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6) C-Stained Leaves (B9) mely Vegetated Concave	cator is su	W Si Ai O Pi R Si O	1, 2, 4A and 4 alt Crust (B11) quatic Invertebrydrogen Sulfide xidized Rhizospresence of Redecent Iron Redutunted or Stress	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	g Roots (C3) poils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal V Iron D Surface Water Spars Field Obse	ydrology Indicators: dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Testained Leaves (B9) Dely Vegetated Concavervations:	ve Surfac	W Si Ai H O Pi R Si O e (B8)	1, 2, 4A and 4 alt Crust (B11) quatic Invertebrydrogen Sulfide xidized Rhizospresence of Red ecent Iron Redutunted or Stress ther (Explain in	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	g Roots (C3) poils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal V Iron D Surface Water Spars Field Obse	ydrology Indicators: dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) The Stained Leaves (B9) Dely Vegetated Concavervations: A care of the state of the s	ve Surfac	W Si Ai O Pi R Si O	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Redecent Iron Redutunted or Stress ther (Explain in Depth (inches)	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	g Roots (C3) poils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Spars Field Obse Surface Wa	ydrology Indicators: dicators (any one indicators (any one indicat	ve Surfac	W Si H O R Si O e (B8)	1, 2, 4A and 4 alt Crust (B11) quatic Invertebrydrogen Sulfide xidized Rhizospresence of Red ecent Iron Redutunted or Stress ther (Explain in	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	g Roots (C3) poils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators: dicators (any one indicators (any one indicat	ve Surfac	W   S   S   S   S   S   S   S   S   S	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Red ecent Iron Redutunted or Stress ther (Explain in Depth (inches) Depth (inches)	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	pils (C6) RR A) Wetland Hydrok	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators: dicators (any one indicators (any one indicat	ve Surfac	W   S   S   S   S   S   S   S   S   S	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Red ecent Iron Redutunted or Stress ther (Explain in Depth (inches) Depth (inches)	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	pils (C6) RR A) Wetland Hydrok	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators: dicators (any one indicators (any one indicat	ve Surfaces	W   S   S   S   S   S   S   S   S   S	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Red ecent Iron Redutunted or Stress ther (Explain in Depth (inches) Depth (inches)	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	pils (C6) RR A) Wetland Hydrok	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators: dicators (any one indicators (any one indicat	ve Surfaces	W   S   S   S   S   S   S   S   S   S	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Red ecent Iron Redutunted or Stress ther (Explain in Depth (inches) Depth (inches)	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	pils (C6) RR A) Wetland Hydrok	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyprimary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators: dicators (any one indicators (any one indicat	ve Surfaces	W   S   S   S   S   S   S   S   S   S	1, 2, 4A and 4 alt Crust (B11) quatic Invertebry ydrogen Sulfide xidized Rhizospresence of Red ecent Iron Redutunted or Stress ther (Explain in Depth (inches) Depth (inches)	rates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	pils (C6) RR A) Wetland Hydrok	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: Tillamook - Southern Flow Corridor  Applicant/Owner: Tillamook County  Investigator(s): Greta Presley and Shane Latimer  Landform (hillslope, terrace, etc.): diked floodplain  Subregion (LRR): Columbia Plateau (LRR B)  Soil Map Unit Name: (3A) Coquille silt loam  Are climatic / hydrologic conditions on the site typical for  Are Vegetation , Soil , or Hydrology  Are Vegetation , Soil , or Hydrology	Lat:	Loca  /ear? significantly naturally pro	Yes 2 disturbed?	Are "Normal Circumstance (If needed, explain any ansv	PFOC  (If no, explain in Remarks S" Present? Yes X vers in Remarks.)	: NAD27
	0 0 X 0 X	Is the Sawithin	point loca ampled Area a Wetland?	<u> </u>	No X	
VEGETATION	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Use scientific names.) 1.	% Cover	Species?	Status?	Number of Dominant Species That Are OBL, FACW, or FAC		_(A)
2 3.			. ———	Total Number of Dominant Species Across All Strata:	4	(B)
4Total Cover	:			Percent of Dominant Species Are OBL, FACW, or FAC:	That <b>75%</b>	_(A/B)
Shrub Stratum				Prevalence Index Workshee	t:	
1. Sambucus racemosa	20	<u>Y</u>	FACU	Total % Cover of:	Multiply by:	_
2. Rubus spectabilis	20	Y	FAC	OBL species	_x1 =0	_
3				FACW species	x2 = 0	_
4				FAC species FACU species	x3 = <b>0</b> x4 = <b>0</b>	_
Total Cover	: 40				x5 = <b>0</b>	_
Herb Stratum	. 40			Column Totals: 0	(A) <b>0</b>	— (B)
Impatiens capensis	50	Υ	FACW	Prevalence Index = B/A =	_(','	_(5)
Oenanthe sarmentosa	25	Y	OBL			_
3. Athyrium filix-femina	10		FAC	Hydrophytic Vegetation Indi	cators:	
4. Polystichum munitum	5		FACU	X Dominance Test is	>50%	
5				#DIV/0! Prevalence Index i	s ≤3.0 <sup>1</sup>	
6				Morphological Ada	ptation <sup>1</sup> (Provide supportir	ng
7					r on a separate sheet)	
8	-	-	-	Problematic Hydro	phytic Vegetation <sup>1</sup> (Explain	n)
Total Cover <u>Woody Vine Stratum</u> 1				<sup>1</sup> Indicators of hydric soil and w present.	etland hydrology must be	
2Total Cover % Bare Ground in Herb Stratum 10 %	: 130 Cover of Bi	otic Crust	0	Hydrophytic Vegetation Present?	Yes X No	
Remarks:						

SOIL	Sampling Point:	P-5
Profile Description:	(Describe to the depth needed to document the indicator or confirm the absence of indicators.)	

12-16   10YR 4/3   100   SiC	12-16   10YR 4/3   100   SiC	Depth Mat	trix	Re	dox Feat	ures			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix.	Type: C=Concentration. D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix.*  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2) Histic Epipedon (A2) Situped Matrix (S8) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches):  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water Stained Leaves (B9) (except MLRA High Water Table (A2) Again (A3) Salt Crust (B11) Dariange Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) For Dariange Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Surface Water (A1) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Sparsely Vegetated Concave Surface (B9) Sparsely Vegetated Concave Surface (B9) Other (Explain in Remarks) Wetland Hydrology Present? Ves No X Depth (inches):  Wetland Hydrology Present? Ves No X Depth (inches): 167 Surface Soil Cracks (B9) Wetland Hydrology Present? Ves No X Depth (inches): 167 Surface Soil Cracks (B9) Wetland Hydrology Present? Ves No X Depth (inches): 167 Surface Water Forest? Ves No X Depth (inches): 167 Surface Water Forest? Ves No X Depth (inches): 167 Surface Water Forest? Ves No X Depth (inches): 167 Surface Water Forest? Ves No X Depth (inches): 167 Surface Water Forest? Ve	(inches) Color (mois	st) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix.  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histiosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histiosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histios (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present,  Sandy gleyed Matrix (F3) Loamy Mick Mineral (S1) Lo	Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   **Jocation:** PL=Pore Lining, M=Matrix.**  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histoso (IA1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histoso (IA1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histosic Epipedon (A2) Stripped Matrix (S8) Red Parent Material (TF2)  Black Histis (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F7)  Sandy Muck Mineral (S1) Depleted Dark Surface (F7) welfand hydrology must be present,  Sandy gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depleted Dark Surface (A12) Hydric Soil Present? Yes No X  Pepth (inches): Hydric Soil Present? Yes No X  Sediment Darks (B1) Darks (B11) Darks (B11) Darks (B11)  Water Table (A2) 1, 2, 4A and 4B)  Water Marks (B1) Sed (Crust (B11) Drainage Patterns (B10)  Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10)  Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2)  Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2)  Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2)  Surface Soil Cracks (B6) Stunted or Siressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)  Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Field Observations:  Water Present? Yes No X Depth (inches): 167 (Inc	0-12 10YR 3/2	100					SiL	<u> </u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Jeffisic Epipedon (A2)  Black Histo (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (A12)  Sandy Bedox (F3)  Sandy Bedox (F3)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F3)  Thick Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Beyed Matrix (S4)  Redox Depressions (F8)  Bestrictive Layer (if present):  Type:  Depth (inches):  Hydric Soil Present?  Yes  No X  Primary Indicators (any one indicator is sufficient)  Water Marks (B1)  Water Marks (B1)  Saturation (A3)  Water Marks (B1)  Oralinge Patterns (B10)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B2)  Hydrogen Sulfied (A4)  Presence of Reduced In Plowed Soils (C6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Since or Crack (B4)  Presence of Reduced In Plowed Soils (C6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Primary Indicators (B1)  Water Marks (B1)  Water Marks (B1)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery (C5)  Surface Soil Cracks (B6)  S	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Sitriped Matrix (S6)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Other (Explain in Remarks)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Bask Histis (A3)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F4)  Redox Dark Surface (F7)  wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Depth (inches):  Type:  Hydric Soil Present?  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  1, 2, 4A and 4B)  Saturation (A3)  Salt Crust (G11)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Saturation (C4)  Saturation (C3)  Saturation (C3)  Saturation (C3)  Saturation (C4)  Saturation (	12-16 10YR 4/3	100					SiCl	<u> </u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stripped Matrix (S6)  Black Histic (A3)  Loamy Mukey Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (A12)  Sandy Muck Mineral (F3)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (F7)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (F7)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (F7)  Sandy Below Dark Surface (F8)  Sandy Below Depleted Dark Surface (F8)  Wetland Hydrology must be present, unless disturbed or problematic.  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present? Yes No X  Secondary Indicators (2 or more required Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present? Yes No X  Secondary Indicators (2 or more required Water-Stained Leaves (B9) (except MLRA  And 4B)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Salturation Visible on Aerial Imagery (C5)  Drift Deposits (B3)  Surface Water Present?  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present?	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Sitriped Matrix (S6)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Other (Explain in Remarks)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Bask Histis (A3)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F4)  Redox Dark Surface (F7)  wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Depth (inches):  Type:  Hydric Soil Present?  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  1, 2, 4A and 4B)  Saturation (A3)  Salt Crust (G11)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Saturation (C4)  Saturation (C3)  Saturation (C3)  Saturation (C3)  Saturation (C4)  Saturation (								<u> </u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Loamy Mukcy Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Thick Dark Surface (A12)  Sandy Muck Mineral (F3)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Depth (inches):  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A11)  Water Stained Leaves (B9) (except MLRA  High Water Table (A2)  Salt Crust (B11)  Water Marks (B1)  Water Marks (B1)  Aqualic invertebrates (B13)  Derinage Patterns (B10)  Dorift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B2)  Hydrogen Sufface Or (C1)  Saltration (Visible on Aerial Imagery (C5)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Or Crust (B4)  Presence of Reduced Iron (C4)  Surface Water (A17)  Surface Water (A18)  Presence of Reduced Iron (C4)  Saltration (Visible on Aerial Imagery (C5)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Or Crust (B4)  Presence of Reduced Iron (C4)  Surface Water Probe (D5)  Surface Water Aeria (D5)  Surface Water (D5)  Surfac	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Sitripped Matrix (S6)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Other (Explain in Remarks)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Beptited Surface (A12)  Redox Dark Surface (F6)  Sindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Deptited Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water Table (A2)  High Water Table (A2)  Mater Marks (B1)  Saturation (A3)  Saturation (A4)  Water Stained Leaves (B6)  Surface Water (A1)  Fresence of Reduced Inon (C4)  Shallow Aquilard (D3)  Iron Deposits (B3)  Oxidized Rhizosphrees along Living Roots (C3)  Saturation (Visible on Aerial Imagery (Cision (A4)  Water Stained Leaves (B6)  Surface Soil Cracks (B6)  Surface Bater Present?  Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Dep								<u> </u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Loamy Mukcy Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Thick Dark Surface (A12)  Sandy Muck Mineral (F3)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Depth (inches):  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A11)  Water Stained Leaves (B9) (except MLRA  High Water Table (A2)  Salt Crust (B11)  Water Marks (B1)  Water Marks (B1)  Aqualic invertebrates (B13)  Derinage Patterns (B10)  Dorift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B2)  Hydrogen Sufface Or (C1)  Saltration (Visible on Aerial Imagery (C5)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Or Crust (B4)  Presence of Reduced Iron (C4)  Surface Water (A17)  Surface Water (A18)  Presence of Reduced Iron (C4)  Saltration (Visible on Aerial Imagery (C5)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Or Crust (B4)  Presence of Reduced Iron (C4)  Surface Water Probe (D5)  Surface Water Aeria (D5)  Surface Water (D5)  Surfac	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Sitripped Matrix (S6)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Other (Explain in Remarks)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Beptited Surface (A12)  Redox Dark Surface (F6)  Sindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Deptited Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water Table (A2)  High Water Table (A2)  Mater Marks (B1)  Saturation (A3)  Saturation (A4)  Water Stained Leaves (B6)  Surface Water (A1)  Fresence of Reduced Inon (C4)  Shallow Aquilard (D3)  Iron Deposits (B3)  Oxidized Rhizosphrees along Living Roots (C3)  Saturation (Visible on Aerial Imagery (Cision (A4)  Water Stained Leaves (B6)  Surface Soil Cracks (B6)  Surface Bater Present?  Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Deptit (Inches): >16°  Wettand Hydrology Present? Yes  No X  Dep								·
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stripped Matrix (S6)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A11)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Depleti (inches):  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Saturation (A3)  Sati Crust (B11)  Water Marks (B1)  Water Marks (B1)  Water Marks (B1)  Aquatic Invertebrates (B13)  Dorit Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Surface Water (A1)  Fresence of Reduced Iron (C4)  Saturation (A2)  Saturation (A3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-St	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A2)  Histosol (A2)  Sandy Redox (S5)  Loamy Mucky Mineral (F1) (except MLRA 1)  Displeted Matrix (F2)  Depleted Selow Dark Surface (A11)  Depleted Below Dark Surface (A11)  Depleted Bark Surface (A12)  Sandy Muck Mineral (F2)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy gleyed Matrix (F3)  Redox Depressions (F8)  Wetland Hydrology Indicators:  Tiplic Soil Present?  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  High Water Table (A2)  Salt Crust (B11)  Water Marks (B1)  Water Marks (B1)  Water Marks (B1)  Water Marks (B1)  Aquatic Invertebrates (B13)  Dorit Deposits (B2)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Iron Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Surface Soil Cracks (B6)  Soi								·
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stripped Matrix (S6)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A11)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Depleti (inches):  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Saturation (A3)  Sati Crust (B11)  Water Marks (B1)  Water Marks (B1)  Water Marks (B1)  Aquatic Invertebrates (B13)  Dorit Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Surface Water (A1)  Fresence of Reduced Iron (C4)  Saturation (A2)  Saturation (A3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegatated Concave Surface (B8)  Water-St	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A2)  Histosol (A2)  Sandy Redox (S5)  Loamy Mucky Mineral (F1) (except MLRA 1)  Displeted Matrix (F2)  Depleted Selow Dark Surface (A11)  Depleted Below Dark Surface (A11)  Depleted Bark Surface (A12)  Sandy Muck Mineral (F2)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy gleyed Matrix (F3)  Redox Depressions (F8)  Wetland Hydrology Indicators:  Tiplic Soil Present?  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  High Water Table (A2)  Salt Crust (B11)  Water Marks (B1)  Water Marks (B1)  Water Marks (B1)  Water Marks (B1)  Aquatic Invertebrates (B13)  Dorit Deposits (B2)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Iron Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Surface Soil Cracks (B6)  Soi								· -
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stripped Matrix (S6)  Black Histic (A3)  Loamy Mukey Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (A12)  Sandy Muck Mineral (F3)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (F7)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (F7)  Sandy Muck Mineral (S1)  Sandy Below Dark Surface (F7)  Sandy Below Dark Surface (F8)  Sandy Below Depleted Dark Surface (F8)  Wetland Hydrology must be present, unless disturbed or problematic.  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present? Yes No X  Secondary Indicators (2 or more required Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present? Yes No X  Secondary Indicators (2 or more required Water-Stained Leaves (B9) (except MLRA  And 4B)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Salturation Visible on Aerial Imagery (C5)  Drift Deposits (B3)  Surface Water Present?  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present? Yes No X  Depth (inches): —  Wetland Hydrology Present?	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Sitriped Matrix (S6)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Other (Explain in Remarks)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Bask Histis (A3)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F3)  Sandy Muck Mineral (S1)  Sandy Gleyed Matrix (F3)  Sandy Gleyed Matrix (F4)  Redox Dark Surface (F7)  wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present):  Type:  Depth (inches):  Type:  Hydric Soil Present?  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  1, 2, 4A and 4B)  Saturation (A3)  Salt Crust (G11)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Saturation (C4)  Saturation (C3)  Saturation (C3)  Saturation (C3)  Saturation (C4)  Saturation (	Type: C=Concentration F	)=Depletion RI	M=Reduced Matrix	CS=Co\	ered or Co	ated Sa	nd Grains <sup>2</sup> Loc	ation: PI =Pore Lining M=Matrix
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Bellow Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No X High Water Table (A2) Surface Water (A1) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C8 Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Jegistration Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Surface Soil Cracks (B6) Sulned or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Vater Present? Yes No X Depth (inches): 167 Water Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Stained Leaves (B9) No X Depth (inches): >167 Wetland Hydrology Present? Yes No X Depth (inches): >167 Wetland Hydrology Present? Yes No X Depth (inches): >167 Wetland Hydrology Present? Yes No X Depth (inches): >167 Sparsely Vegetated Concave Surface (B8)  Wetland Hydrology Present? Yes No X Depth (inches): >167 Sparsely Vegetated Concave Surface (B8)	Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and wetland hydrology must be present, Sandy Muck Mineral (S1) Depleted Dark Surface (F6) wetland hydrology must be present, Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No X  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 4 A4 A4 A4 B4) High Water Table (A2) 1, 2, 4A and 4B) Water Matrix (B1) Drainage Patterns (B10)  Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Field Observations: Surface Water Present? Yes No X Depth (inches): Yes Matrix (Yes No X Depth (inches): Yes No X Depth (inches): Yes Matrix (Yes No X Depth								
Histic Epipedon (A2)   Stripped Matrix (S6)   Red Parent Material (TF2)	Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Pepleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present): Type: Depleth (inches): Hydric Soil Present? Yes No X  Bearrictive Layer (A12) Redox Depressions (F8) Unless disturbed or problematic.  Restrictive Layer (If present): Type: Depleth (inches): Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2 High Water Table (A2) 1, 2, 4A and 4B) Water Ad And 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Weter Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C3) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydrology Present? Yes No X Depth (inches): >16° Wetland Hydro	-	Applicable to a			-		Indicators for	•
Black Histic (A3)   Loamy Mucky Mineral (F1) (except MLRA 1)   Other (Explain in Remarks)   Hydrogen Sulfide (A4)   Loamy Gleyed Matrix (F2)   Depleted Below Dark Surface (A11)   Depleted Matrix (F2)   Thick Dark Surface (A12)   Redox Dark Surface (F6)   Sandy Muck Mineral (S1)   Depleted Dark Surface (F7)   welland hydrology must be present, with the present of	Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Cleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Redox Dark Surface (F6) Pindicators of hydrophytic vegetation and wetland hydrology must be present, Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No X  Watland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA High Water Table (A2) Salturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Surface Soil Cracks (B6) Sulnated or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No X Depth (inches): >16* Salturation Present? Yes No X Depth								•
Hydrogen Sulfide (A4)	Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy gleyed Matrix (S4) Redox Depressions (F8) Depleted Dark Surface (F7) Wetland hydrology must be present, welland hydrology fulliate.  Water-Stained Leaves (B9) (MLRA 1, 2  4 A and 4B)  Drainage Patterns (B10)  Drainage Patterns					-			•
Depleted Below Dark Surface (A11)	Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy gleyed Matrix (S4)  Redox Depressions (F8)  Redox Depression		`		-		except	WILKA 1)	Other (Explain in Remarks)
Thick Dark Surface (A12) Redox Dark Surface (F6) Andy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.    Redox Depressions (F8)   Redox Depth (F8)   Redox Depressions (F8)   Redox Depth (F8)   Redo	Thick Dark Surface (A12) Redox Dark Surface (F6) wetland hydrology must be present, Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic.    Redox Depressions (F8)   No X				-				
Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, and y gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.    No X   Hydric Soil Present?   Yes No X	Sandy Muck Mineral (S1)	<del></del>	, ,			-		312 diagto	es of budrouply tip vogetation and
Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present):    Popth (inches):	Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present):		-			` ,			
Proper   P	Page								
Proper   P	Type:				Jehi essic	) iis (i 0)		unies	ss disturbed of problematic.
Por Metiand Hydrology Indicators:    Primary Indicators (any one indicator is sufficient)   Secondary Indicators (2 or more required Surface Water (A1)   Water-Stained Leaves (B9) (except MLRA   Water-Stained Leaves (B9) (MLRA 1, 2   High Water Table (A2)   1, 2, 4A and 4B)	Por Metand Hydrology Indicators:    Primary Indicators (any one indicator is sufficient)   Secondary Indicators (2 or more required Surface Water (A1)   Water-Stained Leaves (B9) (except MLRA   Water-Stained Leaves (B9) (MLRA 1, 2   High Water Table (A2)   1, 2, 4A and 4B)   A and 4B)   Drainage Patterns (B10)   Water Marks (B1)   Drainage Patterns (B10)   Drainage Patterns (B10		ent).						
### Properties of the propert	Metland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Secondary Indicators (2 or more required Surface Water (A1) High Water Table (A2) High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C3 Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No X Depth (inches): >16° Saturation Vigoria (Day No X) Septon (inches): >16° Water table Present? Yes No X Depth (inches): >16° Saturation Vigoria (Day No X) Sparsely Vegetated Concave Surface (B4) Frost-Heave Hummocks (D7) Sparsely Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Water-Stored (Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:  Water-Stored (Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:	Гуре:							
Problem (Arguer of Secondary Indicators (2 or more required Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (except MLRA And 4B) Water-Stained Leaves (B9) (except MLRA And 4B) Water-Stained Leaves (B9) (except MLRA And 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) And 4B) Prainage Patterns (B10) Pry-Season Water Table (A2) Aquatic Invertebrates (B13) Pry-Season Water Table (C2) Sediment Deposits (B1) Aquatic Invertebrates (B13) Pry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C1) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No X Depth (inches): Staff Saturation Present? Yes No X Depth (inches): Staff Saturati	DROLOGY   Netland Hydrology Indicators:   Primary Indicators (any one indicator is sufficient)   Water-Stained Leaves (B9) (except MLRA   Water-Stained Leaves (B9) (MLRA 1, 2   High Water Table (A2)   1, 2, 4A and 4B)   4A and 4B    4B and 4B    4A and 4B    4B and 4B    4B and 4B    4B and 4B    4A and 4B    4A and 4B    4A and 4B    4B and 4B    4B and 4B    4B and 4B    4A and 4B    4B and 4B  4B and 4B  4B and 4B  4B and 4B	Depth (inches):					Hv	dric Soil Preser	nt? Yes No.X
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  Water-Stained Leaves (B9) (MLRA 1, 2  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9) (MLRA 1, 2  4A and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C5)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Field Observations:  Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches): ≥16"  Wetland Hydrology Present? Yes No X Depth (inches): ≥16"  Wetland Hydrology Present? Yes No X Secrible Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Water (A1)  Water Stained Leaves (B9) (except MLRA  High Water Table (A2)  Aquatic Invertebrates (B13)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Field Observations:  Surface Water Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  No X  Depth (inches):  Secondary Indicators (2 or more required  Water-Stained Leaves (B9)  Drainage Patterns (B10)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (C4)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (C4)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (C4)  Saturation Visible on Aerial Imagery (C3)  Geomorphic			<u> </u>			Ну	dric Soil Preser	nt? Yes No <u>X</u>
Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  At and 4B)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9) (MLRA 1, 2, 4, 4, 4, 4, 4, 5)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frietd Observations:  Surface Water Present?  Yes  No X  Depth (inches):  Water table Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  No X  Depth (inches):  Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9) (MLRA 1, 2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9) (MLRA 1, 2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Four Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Field Observations:  Water Present? Yes No X Depth (inches):  Water Present? Yes No X Depth (inches): >16"  Water Stained Leaves (B9)  Saturation Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Water Stained Leaves (B9) No X Depth (inches): >16"  Water Stained Leaves (B9) No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Ye						Ну	dric Soil Preser	nt? Yes No <u>X</u>
Surface Water (A1)	Surface Water (A1)  High Water Table (A2)  At and 4B)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iton Deposits (B5)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Water Algal Water Present?  Yes  No  X  Depth (inches):  Water Algal Water Stained Leaves (B9)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Frost-Neutral Test (D5)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  Depth (inches):  Saturation Present?	marks: 'DROLOGY	afore:				Ну	dric Soil Preser	nt? Yes No <u>X</u>
High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Fresence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Tield Observations:  Surface Water Present?  Yes  No  X  Depth (inches):  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Drinage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C5)  Saturation Present (B1)  Saturation Present?  Yes  No  X  Depth (inches):  Depth (inches):  Seribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water Table (A2)  1, 2, 4A and 4B)  Aquatic Invertebrates (B13)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Field Observations:  Water table Present?  Yes  No X  Depth (inches):  Water table Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  No X  Depth (inches):  Sa	marks:  DROLOGY  Wetland Hydrology Indica		fficient)			Ну	dric Soil Preser	
Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Setived Observations:  Surface Water Present?  Ves No X Depth (inches):  Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  Setiving Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes No X Depth (inches):  Scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Seliceld Observations:  Surface Water Present?  Ves  No X  Depth (inches):  Vater table Present?  Ves  No X  Depth (inches):  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C8)  Geomorphic Position (D2)  Saturation (C4)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Selfeld Observations:  Water table Present?  Yes  No X  Depth (inches):  Depth (inches):  Saturation Present?  Yes  No X  Depth (inches):  Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  marks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm marks)  Saturation Present?  Yes  No X  Depth (inches):  Depth (inches):  Depth (inches):  Socribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY Vetland Hydrology Indica			Stained Le	eaves (B9)			Secondary Indicators (2 or more required
Water Marks (B1)	Water Marks (B1)	DROLOGY Vetland Hydrology Indications (any one Surface Water (A1)	e indicator is su	Water-S					Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2
Sediment Deposits (B2)	Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Water Present? Yes  No X  Depth (inches):  Water Albie Present? Yes  No X  Depth (inches):  Depth (inches):  Surface Soillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  marks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm alternative (C1)  Saturation Visible on Aerial Imagery (C5)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C5)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C5)  Geomorphic Position (D2)  Saturation Visible on Aerial Imagery (C5)  Security Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  Facility Against Position (D2)  Facility Against Position (D2)  Saturation Plowed Soils (C6)  FAC-Neutral Test (D5)  Facility Against Ploys (D1)  Raised Ant Mounds (D6) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes  No X  No X  No X  Depth (inches): >16"  Wetland Hydrology Present? Yes  No X  No X  No X  No X  Depth (inches): >16"  Wetland Hydrology Present? Yes  No X  No X  No X  No X  Depth (inches): >16"  No X  No X  Depth (inches): >16"  No X  Depth	DROLOGY Vetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2	e indicator is su	Water-S 1, 2,	4A and 4				Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2
Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Water table Present?  Yes  No  X  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches):  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches):  Depth (inches):  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches):  Depth (inches):  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches	Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Water table Present? Yes No X Depth (inches):  Vater table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Soribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  marks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm	DROLOGY Vetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3)	e indicator is su	Water-S <b>1, 2,</b> Salt Cru	<b>4A and 4</b> ust (B11)	4B)			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10)
Algal Mat or Crust (B4)	Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Social Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  marks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm	DROLOGY  Vetland Hydrology Indicators (any one Surface Water (A1)  High Water Table (A2 Saturation (A3)  Water Marks (B1)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic	4A and 4 ust (B11) Invertebr	<b>4B</b> ) rates (B13)	(except		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5)  Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)  Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X Depth (inches): >16"  Strincludes capillary fringe)  Scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5)  Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)  Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches):  Saturation Prese	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydroge	4A and 4 ust (B11) Invertebren Sulfide	<b>4B</b> ) rates (B13) e Odor (C1)	(except	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS
Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Social Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Social Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Surface Water Present? Yes No X Depth (inches): Social Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primarks:  Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydrogo Oxidize	4A and 4 ust (B11) Invertebren Sulfide d Rhizosp	rates (B13) e Odor (C1) oheres alon	( <b>except</b>	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2)
Water-Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): >16" Saturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes No X Depth (inches): >16" Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): >16" Saturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes No X Sincludes capillary fringe) Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Semarks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm)	Primarks:  Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B4) Algal Mat or Crust (B4)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydrogo Oxidize Presence	4A and 4 ust (B11) Invertebren Sulfided d Rhizospece of Red	rates (B13) e Odor (C1) oheres alor uced Iron (	g Living	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2)  Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches): >16"  Saturation Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X  (includes capillary fringe)  Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): >16" Saturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes No X  (includes capillary fringe) Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Semarks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm)	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydrogo Oxidize Preseno Recent	4A and 4 ust (B11) Invertebren Sulfided Rhizospece of Red Iron Redu	rates (B13) e Odor (C1) oheres alon uced Iron ( uction in Pla	g Living C4)	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Field Observations:  Surface Water Present? Yes No _X Depth (inches): Water table Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): (includes capillary fringe)  escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observations:  Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Secribe Recorded at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I	e indicator is su 2) 32) 4) B6)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted	4A and 4 ust (B11) Invertebren Sulfided Rhizospece of Red Iron Redu	rates (B13) e Odor (C1) oheres alor uced Iron ( uction in Pla sed Plants	g Living C4)	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches): >16"  Saturation Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X  includes capillary fringe)  Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes No X Depth (inches): >16"  Saturation Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X  Includes capillary fringe)  Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Semarks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm)	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I) Water-Stained Leaves	e indicator is su 2) 32) 4) B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presence Recent Stunted Other (E	4A and 4 ust (B11) Invertebren Sulfided Rhizospece of Red Iron Redu	rates (B13) e Odor (C1) oheres alor uced Iron ( uction in Pla sed Plants	g Living C4)	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes No X (includes capillary fringe)  scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes No X (includes capillary fringe)  secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  emarks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm)	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I Water-Stained Leaves Sparsely Vegetated C	e indicator is su 2) 32) 4) B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presence Recent Stunted Other (E	4A and 4 ust (B11) Invertebren Sulfided Rhizospece of Red Iron Redu	rates (B13) e Odor (C1) oheres alor uced Iron ( uction in Pla sed Plants	g Living C4)	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
(includes capillary fringe) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	(includes capillary fringe) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: emarks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I Water-Stained Leaves Sparsely Vegetated C	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surfac	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presenc Recent Stunted Other (E	4A and 4 ust (B11) Invertebren Sulfided d Rhizospece of Red Iron Redu I or Stress Explain in	rates (B13) e Odor (C1) oheres alor uced Iron ( uction in Pla sed Plants Remarks)	g Living C4)	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  emarks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm)	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I) Water-Stained Leaves Sparsely Vegetated Co Field Observations: Surface Water Present? Water table Present?	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surfac  Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   (B8)   Depth   No   X   Depth   Dept	4A and 4 ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu I or Stress Explain in	rates (B13) e Odor (C1) oheres alor uced Iron ( uction in Ple sed Plants ( Remarks)  : : >16"	g Living C4)	Roots (C3)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
	emarks: Plot located at low point on berm, in wettest looking area; slopes up on either side. May have been a tree removed (low depression in berm	Primarks:  Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I) Water-Stained Leaves Sparsely Vegetated Co Field Observations: Surface Water Present? Water table Present? Saturation Present?	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surfac  Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   (B8)   Depth   No   X   Depth   Dept	4A and 4 ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu I or Stress Explain in	rates (B13) e Odor (C1) oheres alor uced Iron ( uction in Ple sed Plants ( Remarks)  : : >16"	g Living C4)	Roots (C3)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
emarks. Plot located at low point on herm, in wettest looking area: slopes up on either side. May have been a tree removed flow depression in herm		Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I) Water-Stained Leaves Sparsely Vegetated C  Field Observations: Surface Water Present? Water table Present? Saturation Present? (includes capillary fringe)	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surfac  Yes Yes Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   (B8)   Depth   No   X   Depth   Dept	4A and 4 ust (B11) Invertebren Sulfide d Rhizospece of Red Iron Redu I or Stress Explain in (inches) n (inches)	rates (B13) e Odor (C1) cheres alor uced Iron ( uction in Pla sed Plants Remarks)  : : >16" : >16"	g Living C4) bwed Sc D1) (LR	MLRA  Roots (C3)  oils (C6)  RR A)  Wetland Hydro	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
smarks. First located action point on perm, in meteocholding area, slopes up on either slue, may have been a tree removed (low depression in benn	ken to confirm upland in suspicious area.	Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I) Water-Stained Leaves Sparsely Vegetated C  Field Observations: Surface Water Present? Water table Present? Saturation Present? (includes capillary fringe)	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surfac  Yes Yes Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   (B8)   Depth   No   X   Depth   Dept	4A and 4 ust (B11) Invertebren Sulfide d Rhizospece of Red Iron Redu I or Stress Explain in (inches) n (inches)	rates (B13) e Odor (C1) cheres alor uced Iron ( uction in Pla sed Plants Remarks)  : : >16" : >16"	g Living C4) bwed Sc D1) (LR	MLRA  Roots (C3)  oils (C6)  RR A)  Wetland Hydro	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

Project/Site: Tillamook - Southern Flow Corridor		City/County:	: Tillamook			Sampli	ing Date:	7/17/2014
Applicant/Owner: Tillamook County					State: OR	Sampli	ing Point: P-6	
nvestigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	nip, Range:	1S 10W Sec 24			
andform (hillslope, terrace, etc.): diked floodplain		Loca	I relief (conca	ave, convex,	none): concave		Slope (%)	): 0-5%
Subregion (LRR): NW Forests and Coasts (LRR A)	Lat:	_			Long:			n: NAD27
Soil Map Unit Name: (1A) Brenner silt loam	-				NWI Classification:			
Are climatic / hydrologic conditions on the site typical for t	this time of	/ear?	Yes 2	X	No	(If no, ex	olain in Remark	s)
Are Vegetation, Soil, or Hydrology			_		ormal Circumstance			
Are Vegetation , Soil , or Hydrology					ed, explain any ansv			_
SUMMARY OF FINDINGS – Attach site map								
Hydrophytic Vegetation Present? Yes X No	)	1- 11- 0	I - I <b>A</b>	_				
<u> </u>	)		ampled Area a Wetland?	а	Yes X	No		
	)	Within	a Welland:					
VEGETATION								
	A la a a la 14 a	Daminant	la dia atau	Dominana	e Test worksheet:			
	Absolute % Cover	Dominant Species?	Indicator Status?		Dominant Species			
Tree Stratum (Use scientific names.)					FACW, or FAC:	тпас		
1		-			•		2	(A)
2		-			ber of Dominant			
3		-		Species A	cross All Strata:		2	(B)
4Total Cover:					Dominant Species FACW, or FAC:	That	100%	(A/B)
Shrub Stratum				Prevalenc	e Index Workshee	<b>.</b>		
1. Salix sitchensis	95	<b>Y</b>	FACW		l % Cover of:		Multiply by:	
2. Rubus spectabilis	10		FAC	OBL speci		x1 =	0	_
3. Rubus discolor	5		FACU	FACW spe		x2 =	0	_
1				FAC speci		x3 =	0	_
5.				FACU spe		x4 =	0	<del></del>
Total Cover:	110			UPL speci		x5 =	0	<u>—</u>
Herb Stratum				Column To		(A)	0	(B)
1. Carex obnupta	20	Υ	OBL		ence Index = B/A =		#DIV/0!	
2.								<u>—</u>
3.				Hydrophy	tic Vegetation Indi	cators:		
4.			-	X	Dominance Test is			
5.		-		#DIV/0!	Prevalence Index i			
<u></u> 5.			-		Morphological Ada		Provide support	ina
7.			-		data in Remarks o			iiig
3.			-		Problematic Hydro			in)
Total Cover:	20		-		,,,,	, , , , ,	,	,
Woody Vine Stratum  I.				<sup>1</sup> Indicators present.	of hydric soil and w	etland hyd	drology must b	е
2.				Hydrophy	tic			
Total Cover:	20			Vegetation				
% Bare Ground in Herb Stratum80 %	Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks:				1				

Duefile Description. (Describe to the double wooded	to document the indicator or confirm the absence of indicators.	
SOIL	Sampling Point:	P-6

Profile Des	scription: (Describe t	o the de	pth needed to do	cument	the indica	ator or	confirm the abs	sence of indicators.)
Depth	Matrix		Re	dox Feat	ures		_	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
2-0							Organics	
0-4	10YR 2/1	100					SiL	
4-16	10YR 3/2	95	7.5YR 3/4	5	С	М	SiCI	
							_	<u> </u>
<sup>1</sup> Type: C=0	Concentration, D=Depl	etion, RM	I=Reduced Matrix	CS=Cov	ered or C	coated S	Sand Grains. <sup>2</sup> L	ocation: PL=Pore Lining, M=Matrix.
Hydric Soi	I Indicators: (Applica	able to al	I LRRs. unless o	herwise	noted.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
	sol (A1)	ibic to ui		Redox (S			maioatoro	2 cm Muck (A10) ( <b>LRR B</b> )
	Epipedon (A2)			Matrix (	•		<del>-</del>	Red Parent Material (TF2)
	Histic (A3)				-	) (excei	ot MLRA 1)	Other (Explain in Remarks)
	gen Sulfide (A4)			•	latrix (F2)	•	_	Very Shallow Dark Surface (TF12)
	ted Below Dark Surfac	e (A11)		d Matrix		,	<del>-</del>	very enament bank earnage (11 12)
	Dark Surface (A12)	o (, (, 1, 1)		Dark Surf	` '		<sup>3</sup> Indica	itors of hydrophytic vegetation and
	Muck Mineral (S1)				urface (F7	7)		and hydrology must be present,
	gleyed Matrix (S4)			Depressio	•	,		lless disturbed or problematic.
	Layer (if present):		<u> </u>		(, ,			
Type: Depth (inch	es):					1,	Hydric Soil Pres	sent? Yes X No
Remarks:								
Nemarks.								
HYDROLOG								
Wetland H	ydrology Indicators:							
Primary Ind	licators (any one indica	ator is suf						Secondary Indicators (2 or more required)
Surfac	ce Water (A1)		Water-S	Stained Le	eaves (B9	) (exce	pt MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
High \	Water Table (A2)		1, 2,	4A and	4B)		<del>-</del>	4A and 4B)
Satura	ation (A3)		Salt Cru	ıst (B11)			<u>&gt;</u>	Drainage Patterns (B10)
Water	Marks (B1)		Aquatic	Inverteb	rates (B13	3)	<del>-</del>	Dry-Season Water Table (C2)
Sedim	ent Deposits (B2)		Hydroge	en Sulfide	e Odor (C	1)	_	Saturation Visible on Aerial Imagery (C9)
Drift D	eposits (B3)		Oxidize	d Rhizosı	pheres ald	ong Livi	ng Roots (C3)	Geomorphic Position (D2)
Algal I	Mat or Crust (B4)		Present	e of Red	uced Iron	(C4)	_	Shallow Aquitard (D3)
Iron D	eposits (B5)		Recent	Iron Red	uction in F	Plowed	Soils (C6)	FAC-Neutral Test (D5)
Surfac	ce Soil Cracks (B6)		Stunted	or Stress	sed Plants	s (D1) (l	_RR A)	Raised Ant Mounds (D6) (LRR A)
Water	-Stained Leaves (B9)		Other (E	Explain in	Remarks	s)	_	Frost-Heave Hummocks (D7)
Spars	ely Vegetated Concave	e Surface	e (B8)					
Field Obse								
	iter Present? Yes			(inches)				
Water table Saturation I				(inches) (inches)			Wetland Hy	drology Present? Yes X No
	apillary fringe)		No X Bepti	(Inches)	10		Wedanany	103 <u>/ 103 /</u>
	orded Data (stream ga	uge, mor	nitoring well, aeria	photos,	previous i	nspecti	ons), if available	:
Domorlini Di	t loogtod within a comm		oo within desires	Metair	aa	ا مار داما	n field mare eff	d avantlavy from alayah to the constitu
Remarks: Plo	i located within a very	woody ar	ea within drainage	. vvater s	sources III	keiy froi	ii ilela runott and	d overflow from slough to the north.

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County	: Tillamook				Samp	ling Daf	te:	7/17/2014
Applicant/Owner:	Tillamook County						State:	OR	Samp	ling Poi	int: P-7	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10V	V Sec 24	_	-		
Landform (hillslop	•	diked floodplain		_	I relief (conca	-					Slope (%):	0-5%
` .	Columbia Plateau (			_	,					.8603		NAD27
Soil Map Unit Nar			=					ssification:				
•	rologic conditions on		this time of v	/ear?	Yes					olain ir	n Remarks)	)
	, Soil				_			rcumstance				
Are Vegetation		, or Hydrology						in any ansv				
, as regetation	,	, 0, 0.0.09,		natarany pr		(	ou, onp.o			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	
SUMMARY O	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansect	s, import	ant feat	ures,	etc.	
Hydrophytic Vege	station Present?	Yes No	. X									
Hydric Soil Prese		Yes No		Is the S	ampled Area	1	Yes		No X			
Wetland Hydrolog		Yes No		within	a Wetland?		103		_ <del>                                     </del>			
-		·										
Plot located 12 fe	et northwest of P-6, ι	ipsiope in pasture a	at edge of w	illows.								
VEGETATION												
			Absolute	Dominant	Indicator	Dominand	ce Test	worksheet				
Tree Stratum (L	Jse scientific names.)	)	% Cover	Species?	Status?	Number of	f Domina	ant Species				
1.	,		-			That Are C	DBL, FA	CW, or FAC	):	1	1	(A)
2.		-	-			Total Num	ber of D	ominant				_ ` '
3.						Species A	cross Al	l Strata:		2	2	(B)
4.						Dercent of	Domina	nt Species	That			_ ` ′
		Total Cover:				Are OBL,		•	Παι	50	)%	(A/B)
												_` ′
Shrub Stratum						Prevalenc	e Index	Workshee	t:			
1. Salix sitchensis	S		50	N*	FACW	Tota	al % Cov	er of:		Multip	oly by:	
2.						OBL spec	ies		x1 =		0	-
3.						FACW spe	ecies		x2 =	(	0	_
4.						FAC spec	ies	90	x3 =	27	70	_
5.						FACU spe	cies	20	x4 =	8	0	_
		Total Cover:	50			UPL speci	es		x5 =		0	_
Herb Stratum						Column To	otals:	110	(A)	35	50	(B)
1. Agrostis tenuis	1		80	Υ	FAC	Preva	lence Ind	dex = B/A =		3.2		_
2. Dactylis glome	rata		20	Y	FACU							
3. Holcus lanatus	1		10		FAC	Hydrophy	tic Vege	etation Ind	icators:			
4.							Domina	ance Test is	s >50%			
5.							Prevale	ence Index	is ≤3.0 <sup>1</sup>			
6.							Morpho	ological Ada	ntation <sup>1</sup> (	Provide	supportin	α
7.								Remarks o				3
8.							Probler	matic Hydro	phytic Ve	getatior	n¹ (Explain	1)
		Total Cover:	110									
Woody Vine St	ratum					<sup>1</sup> Indicators	of hydri	ic soil and v	vetland hy	/drology	must be	
1						present.						
2.						Hydrophy	rtic					
		Total Cover:	160			Vegetatio						
% Ba	are Ground in Herb St	tratum %	Cover of Bio	otic Crust	0	Present?			Yes		No X	
Remarks: Salix ro	oted below, in wet ch	nannel.										
	,											

Profile Des	scription: (Describe	to the depth	needed to do	cument	the indicate	or or co	onfirm the absenc	e of indicators.)
Depth	Matrix		Red	dox Feat	ures			
(inches)	Color (moist)	% C	olor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/4	100					SiL	
4-16	10YR 3/3	100					SiL	very fine silt loam
		. — —						
							·	
<sup>1</sup> Type: C=0	Concentration, D=Dep	oletion, RM=Re	educed Matrix,	CS=Cov	vered or Co	ated Sa	nd Grains. <sup>2</sup> Locati	ion: PL=Pore Lining, M=Matrix.
Hydric Soi	il Indicators: (Applic	able to all LR	Rs, unless ot	herwise	noted.)		Indicators for F	Problematic Hydric Soils <sup>3</sup> :
Histos	sol (A1)		Sandy F	Redox (S	5)			2 cm Muck (A10) ( <b>LRR B</b> )
Histic	Epipedon (A2)		Stripped	Matrix (	S6)			Red Parent Material (TF2)
Black	Histic (A3)		Loamy N	/lucky Mi	ineral (F1) (	except	MLRA 1)	Other (Explain in Remarks)
Hydro	ogen Sulfide (A4)		Loamy (	Gleyed M	latrix (F2)			
Deple	eted Below Dark Surfa	ice (A11)	Depleted	d Matrix	(F3)			
Thick	Dark Surface (A12)				ace (F6)			of hydrophytic vegetation and
Sandy	y Muck Mineral (S1)				urface (F7)			hydrology must be present,
Sandy	y gleyed Matrix (S4)		Redox D	epression	ons (F8)		unless	disturbed or problematic.
Restrictive	e Layer (if present):							
Type:			_					
Depth (inch	nes):		<u>-</u>			Ну	dric Soil Present	? Yes No X
Remarks:								
HYDROLOG								
	lydrology Indicators						_	
	dicators (any one indicators	cator is sufficie			(5.0)	, .		Secondary Indicators (2 or more required)
	ce Water (A1)				eaves (B9)	(except	MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
	Water Table (A2)			4A and	4B)			4A and 4B)
	ation (A3)		Salt Cru		(D40)			Drainage Patterns (B10)
	r Marks (B1)				rates (B13)			Dry-Season Water Table (C2)
	nent Deposits (B2) Deposits (B3)				e Odor (C1)		Roots (C3)	Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
	Mat or Crust (B4)				uced Iron (			Shallow Aquitard (D3)
	Deposits (B5)				uction in Pla	•		FAC-Neutral Test (D5)
	ce Soil Cracks (B6)				sed Plants (			Raised Ant Mounds (D6) (LRR A)
	r-Stained Leaves (B9)	1			Remarks)	D 1) ( <b>=</b> 1		Frost-Heave Hummocks (D7)
	sely Vegetated Conca			жрісіі і і	r tomanto,			Trock Flouvo Flammoone (B7)
Field Obse		70 Cariaco (Be	· /					
	ater Present? Yes	s No	X Depth	(inches)	:			
Water table				(inches)				
Saturation		No	X Depth	(inches)	: <u>&gt;16"</u>		Wetland Hydrol	ogy Present? Yes No X
	apillary fringe) corded Data (stream o	auge monitor	ing well, aerial	photos	previous ins	spection	ns), if available:	
				۶٥١٥٥,		- J-		
Remarks: Plo	ot located upslope of F	P-6.						

Applicant/Owner:	Tillamook - Southern Tillamook County Greta Presley and S				Tillamook	ip, Range:	State: OR	Sampling D		7/17/2014
Landform (hillslope,	, terrace, etc.):	diked floodplain		Loca	I relief (conca		, none): convex		Slope (%):	0-5%
Subregion (LRR): 0	Columbia Plateau (L	RR B)	_ Lat:			45.4690	Long:	-123.8603	Datum:	: NAD27
Soil Map Unit Name	e: <u>(73A) Nehale</u>	em silt loam					NWI Classification:	PFOC		
Are climatic / hydrol	logic conditions on t	the site typical for t	this time of y	year?	Yes 2	Χ	No	(If no, explain	in Remarks	.)
Are Vegetation _	, Soil	_, or Hydrology	-	significantly	disturbed?	Are "No	ormal Circumstances	s" Present?	Yes X	No
Are Vegetation _	, Soil	, or Hydrology		naturally pr	oblematic?	(If neede	ed, explain any answ	ers in Remarks	s.)	
SUMMARY OF	FINDINGS – At	tach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant features	, etc.	
Hydrophytic Vegeta	tion Present?	Yes No	Х							
Hydric Soil Present	?	Yes No	X		ampled Area a Wetland?	1	Yes	No X		
Wetland Hydrology	Present?	Yes No	X	Within	a vvetianu:					
Plot located approxi	imately 40 feet sout	h of berm, at lowe	st point in pa	asture.						
VEGETATION										
Tree Stratum (Use	e scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?	Number of	ce Test worksheet: f Dominant Species DBL, FACW, or FAC	:	4	(A)
2.		<del>.</del>				Total Num	ber of Dominant			_ ` '
3.		<del>.</del>					cross All Strata:		5	(B)
4.						Percent of	Dominant Species	That		_` ′
		Total Cover:					FACW, or FAC:		80%	_(A/B)
Shrub Stratum						Prevalenc	e Index Worksheet	::		
1						0	al % Cover of:	Mult	iply by:	_
2						OBL speci		x1 =	0	_
3						FACW spe	ecies	x2 =	0	_
4						FAC speci	ies	x3 =	0	_
5						FACU spe		x4 =	0	_
		Total Cover:				UPL speci	es	x5 =	0	_
Herb Stratum						Column To	otals: 0	(A)	0	_(B)
1. Agrostis tenuis			40	Y	FAC	Preva	lence Index = B/A =	#DIV	/0!	_
2. Lotus corniculatu	IS		30	Y	FAC					
3. Cirsium arvense			25	Y	FAC	Hydrophy	rtic Vegetation Indi	cators:		
4. Holcus lanatus			20	Y	FAC		Dominance Test is	>50%		
5. Dactylis glomera	ta		20	Y	FACU	#DIV/0!	Prevalence Index is	s ≤3.0 <sup>1</sup>		
6. Festuca arundina	acea		10		FAC		Morphological Ada	otation <sup>1</sup> (Provic	de supportin	ıq
7. Malva neglecta			5		NOL		data in Remarks or	on a separate	sheet)	
8			-				Problematic Hydro	ohytic Vegetation	on¹ (Explain	1)
Woody Vine Stra	<u>itum</u>	Total Cover:	150			<sup>1</sup> Indicators present.	s of hydric soil and w	etland hydroloç	gy must be	
2.						Hydrophy	rtic			
		Total Cover:	150			Vegetatio				
% Bare	Ground in Herb St	ratum %	Cover of Bi	otic Crust	0	Present?		Yes X	No	
Remarks: Berm bar		-				<u> </u>				
	ŕ	·								

Profile Des	scription: (Describe	to the depth	needed to doo	ument t	he indica	ator or	confirm the	absence of i	indicators.)	
Depth	Matrix		Red	lox Featu	ures					
(inches)	Color (moist)	% Co	olor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textu	ire	Rem	arks
0-7	10YR 2/2	100					SiL			
7-18	10YR 3/3	90 7.5	′R 3/4	10	С	М	SiL			
<sup>1</sup> Type: C=0	Concentration, D=Depl	etion, RM=Re	duced Matrix,	CS=Cov	ered or C	coated S	Sand Grains.	<sup>2</sup> Location: F	PL=Pore Lining, M=	=Matrix.
Hudria Sai	I Indicators: (Applica	able to all I D	De unless of	horwico	noted \		Indicato	re for Broble	ematic Hydric Soi	lo <sup>3</sup> .
=	sol (A1)	able to all Liv	Sandy R		-		indicato		Muck (A10) (LRR	
	Epipedon (A2)		Stripped		•				Parent Material (TF	•
	Histic (A3)				•	) (evcei	ot MLRA 1)		r (Explain in Rema	•
	gen Sulfide (A4)			-	atrix (F2)	-	ot WILIXA I)		i (Explain in Nema	iko)
	ted Below Dark Surfac	· (Δ11)	Depleted	-		)				
	Dark Surface (A12)	C (/111)	Redox D				<sup>3</sup> Inc	licators of hy	drophytic vegetatio	on and
	/ Muck Mineral (S1)				urface (F7	7)		-	ology must be prese	
	gleyed Matrix (S4)		Redox D			,	•	=	rbed or problemati	
	Layer (if present):		Redox B	Сргсоою	710 (1 0)			urness dista	mocd of problemati	<u> </u>
	Layer (ii procein).									
Type: Depth (inch	ies):					١,	Hydric Soil P	resent?	Yes	No X
Remarks:										
rtemants.										
HYDROLOG	Υ									
Wetland H	ydrology Indicators:									
Primary Ind	licators (any one indica	ator is sufficie	nt)						dary Indicators (2	
Surfac	ce Water (A1)		Water-S	tained Le	eaves (B9	) (exce	pt MLRA	Wate	er-Stained Leaves (	B9) ( <b>MLRA 1, 2,</b>
High \	Water Table (A2)			4A and 4	<b>4B</b> )			4/	A and 4B)	
Satura	ation (A3)		Salt Crus	st (B11)				Drain	nage Patterns (B10	)
Water	Marks (B1)		Aquatic	nvertebr	ates (B13	3)		Dry-S	Season Water Tabl	e (C2)
Sedim	nent Deposits (B2)		Hydroge	n Sulfide	Odor (C	1)		Satur	ration Visible on Ae	erial Imagery (C9)
Drift D	Deposits (B3)		Oxidized	Rhizosp	heres alc	ong Livi	ng Roots (C3	) Geor	morphic Position (D	92)
Algal I	Mat or Crust (B4)				uced Iron			Shall	low Aquitard (D3)	
	eposits (B5)						Soils (C6)		-Neutral Test (D5)	
	ce Soil Cracks (B6)				sed Plants		LRR A)		ed Ant Mounds (D6	
Water	-Stained Leaves (B9)		Other (E	xplain in	Remarks	s)		Frost	t-Heave Hummocks	s (D7)
Spars	ely Vegetated Concav	e Surface (B8	)							
Field Obse				<i>:</i>						
Surface Wa Water table	ater Present? Yes Present? Yes	No		(inches): (inches):						
Saturation I		No No		(inches):			Wetland	Hydrology F	Present? Yes	No X
	apillary fringe)		·	` ,				, ,,		
Describe Rec	orded Data (stream ga	auge, monitor	ng well, aerial	photos,	previous i	nspecti	ons), if availa	ble:		
Remarks: Plo	t located at lowest poi	nt in nasture								
	Joacoa at lowest pol	III paolais.								

Project/Site: Tillamook - Southern Flow Corridor		City/County	: Tillamook			Sampli	ng Date:	8/22/2014
Applicant/Owner: Tillamook County					State: OR	Sampli	ng Point: P-9	
Investigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	nip, Range:	1S 10W Sec 23	•		
Landform (hillslope, terrace, etc.): diked floodplain		Loca	I relief (conca	ave, convex,	none): concave		Slope (%)	: 0-1%
Subregion (LRR): NW Forests and Coasts (LRR A)	Lat:	_			Long:			n: NAD27
Soil Map Unit Name: (103A) Coquille silt loam, diked					NWI Classification:			
Are climatic / hydrologic conditions on the site typical for t		vear?	Yes		No		olain in Remark	s)
Are Vegetation, Soil, or Hydrology			_		ormal Circumstance	-		
Are Vegetation , Soil , or Hydrology					d, explain any ansv		·	
SUMMARY OF FINDINGS – Attach site map					nsects, importa	ant featu	res, etc.	
Hydrophytic Vegetation Present? Yes X No	)	lo the S	ampled Area	•				
Hydric Soil Present? Yes X No	)		ampled Area a Wetland?		Yes X	No		
Netland Hydrology Present? Yes X No	)							
VEGETATION								
	Absolute	Dominant	Indicator	Dominano	e Test worksheet:			
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of	Dominant Species	That		
1				Are OBL, F	FACW, or FAC:		3	(A)
		-	<del></del>	Total Num	ber of Dominant		<u> </u>	(/~)
2					cross All Strata:		3	(B)
3				Damasus of	Daminant Coasias			(D)
Total Cover:					Dominant Species FACW, or FAC:		100%	(A/B)
Shrub Stratum				Prevalenc	e Index Workshee	t:		
ſ. <u> </u>				Tota	l % Cover of:		Multiply by:	
2.				OBL speci	es	x1 =	0	
3.				FACW spe	ecies	x2 =	0	
4.				FAC speci	es	x3 =	0	
5.				FACU spe	cies	x4 =	0	
Total Cover:				UPL speci	es	x5 =	0	
Herb Stratum				Column To	otals: 0	(A)	0	(B)
1. Phalaris arundinacea	50	Y	FACW	Preva	ence Index = B/A =		#DIV/0!	
2. Juncus effusus	30	Y	FACW					
3. Agrostis capillaris	30	Υ	FAC	Hydrophy	tic Vegetation Indi	cators:		
1				X	Dominance Test is	>50%		
5				#DIV/0!	Prevalence Index i	s ≤3.0 <sup>1</sup>		
5					Morphological Ada	ptation <sup>1</sup> (P	rovide supporti	ng
7					data in Remarks o			
3					Problematic Hydro	phytic Veg	etation <sup>1</sup> (Explai	in)
Total Cover:	110							
Woody Vine Stratum  1.				<sup>1</sup> Indicators present.	of hydric soil and w	etland hyd	frology must be	е
2.				Hydrophy	tic			
Total Cover:				Vegetation				
% Bare Ground in Herb Stratum%	Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks:				1			<u> </u>	
Remarks:				•				

Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1)  Sandy Redox (S5) Loamy Redox (S5)  Loamy Mucky Mineral (F1) (except MLRA 1)  Loamy Gleyed Matrix (F2) Depleted Matrix (F3)  X Redox Dark Surface (F6) Sandy Muck Mineral (S1)  Depleted Dark Surface (F7) wetland	Remarks  PL=Pore Lining, M=Matrix.  Problematic Hydric Soils³:  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)  Ts of hydrophytic vegetation and
10	ation: PL=Pore Lining, M=Matrix.  Problematic Hydric Soils³:  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
T-12	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Loan Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Histosol (A1) Sandy Redox (S5) Indicators for Histosol (A2) Stripped Matrix (S6) Indicators for Histosol (A2) Indicators for Histosol (A2) Indicators for Histosol (A3) Indicators for Histosol (A3) Indicators for Hydrogen Sulfide (A4) Indicators for Hydrogen Sulfide (A1) Indicators for Hydrogen Sulfide (A1) Indicators for Hydrogen Sulfide (A2) Indicator for Hydrogen Sulfide (A2) Indicator for Hydrogen Sulfide Odor (C1) Indicators for Hydrogen Sulfide Odor (C3) Indicators for Hydrogen Sulfide Odor (C4) Indicators in Hydrogen Sulfide Odor (C4) Indicators in Hydrogen Sulfide Odor (C4) Indicators in Hydrogen Sulfide Odor (C4) Indicators i	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
12-16 10YR 4/2 100 SiL  1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Loamy Redox (S5) Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators (Applicable (A1) Sandy Redox (S5) Loamy Mucky (S6) Loamy Mucky (Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Dark Surface (F6) Andicator Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland Restrictive Layer (if present): Redox Depressions (F8) Unless (Applications (A12) Redox Depressions (F8) Unless (A14) Redox Depleted Dark Surface (A15) Unless (A15) Redox Depressions (F8) Unless (A15) Redox Depleted Dark Surface (A16) Unless (A16) Redox Depressions (F8) Unless (A17) Redox Depleted Dark Surface (A17) Unless (A17) Redox Depressions (F8) Unless (A17) Redox Depressions (A17) Redox D	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2Loc Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Depleted Dark Surface (F6) Sandy Muck Mineral (S1) Restrictive Layer (if present): Type: Depth (inches):  Hydric Soil Prese Remarks:  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) X Oxidized Rhizospheres along Living Roots (C3)	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A2)  Histic Epipedon (A2)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Bepleted Dark Surface (F6)  Redox Depressions (F8)  Unle  Restrictive Layer (if present):  Type: Depth (inches):  Depth (inches):  Hydric Soil Prese  Remarks:  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Satt ration (A3)  Salt Crust (B11)  Water Marks (B1)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  X Oxidized Rhizospheres along Living Roots (C3)	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) Siripped Matrix (S6) Siripped Matrix (F2) Siripped Matrix (F3) Siripped Matrix (F4) Siripped	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) Siripped Matrix (S6) Siripped Matrix (F2) Siripped Matrix (F3) Siripped Matrix (F4) Siripped	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A2)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Sandy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Beyed Matrix (S4)  Redox Dark Surface (F6)  Jandicators (F7)  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Satt crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Kandy Redox (S5)  Loamy Medox (S5)  Loamy Mucky Mineral (F1) (except MLRA 1)  Loamy Gleyed Matrix (S6)  Loamy Mucky Mineral (F1) (except MLRA 1)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Peleted Dark Surface (F6)  Jepleted Dark Surface (F7)  wetland Redox Depressions (F8)  unle  Hydric Soil Prese  Verland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)  Satt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  X Oxidized Rhizospheres along Living Roots (C3)	Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (LRR B)  Red Parent Material (TF2)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)
Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Indicator Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetlan Sandy gleyed Matrix (S4) Redox Depressions (F8) Unlease Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present Surface Water (A1) Water-Stained Leaves (B9) (except MLRA High Water Table (A2) 1, 2, 4A and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) X Oxidized Rhizospheres along Living Roots (C3)	2 cm Muck (A10) ( <b>LRR B</b> ) Red Parent Material (TF2) Other (Explain in Remarks) Very Shallow Dark Surface (TF12)
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Sandy Muck Mineral (F2) Depleted Dark Surface (F6) Sandy Muck Mineral (S1) Sandy gleyed Matrix (S4) Bestrictive Layer (if present): Type: Depth (inches): Hydric Soil Present Surface Water (A1) Water-Stained Leaves (B9) (except MLRA High Water Table (A2) Saturation (A3) Satir Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA Loamy Mucky Mineral (F1) (except MLRA) Loamy Mucky Mineral (F1) (except MLRA) Pepted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Pepted Dark Surface (F7) Wetland Surface (F7) Wetland F1 Water Soil Present Hydric Soil Present National Matrix (F2) Depleted Matrix (F3) Natlian (F1) Security (F2) Security (F1) Secur	Red Parent Material (TF2) Other (Explain in Remarks) Very Shallow Dark Surface (TF12)
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Inliciator Sandy Muck Mineral (S1) Depleted Dark Surface (F7) Wetland Sandy gleyed Matrix (S4) Redox Depressions (F8) Unlegative Layer (if present): Type: Depth (inches): Hydric Soil Present Remarks:  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) X Oxidized Rhizospheres along Living Roots (C3)	Other (Explain in Remarks) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy gleyed Matrix (S4) Redox Dark Surface (F6) Sandy gleyed Matrix (S4) Redox Depressions (F8) unle  Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Prese  Remarks:  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Satt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) X Oxidized Rhizospheres along Living Roots (C3)	Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy gleyed Matrix (S4)  Redox Depressions (F8)  Unleter Restrictive Layer (if present):  Type: Depth (inches):  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Water Marks (B1)  Sediment Deposits (B2)  Dirift Deposits (B3)  X Depleted Matrix (F3)  Redox Dark Surface (F6)  3Indicator  Wetland Surface (F6)  3Indicator  Wetland Surface (F7)  Wetland Surface (F7)  Wetland Deposits (B2)  Hydric Soil Preserventa  Primary Indicators (B1)  Water-Stained Leaves (B9) (except MLRA  1, 2, 4A and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  X Oxidized Rhizospheres along Living Roots (C3)	
Thick Dark Surface (A12) X Redox Dark Surface (F6) 3Indicate Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetlant Sandy gleyed Matrix (S4) Redox Depressions (F8) unletestrictive Layer (if present):  Type:	s of hydrophytic vegetation and
Sandy Muck Mineral (S1) Sandy gleyed Matrix (S4) Redox Depressions (F8) Unle  Restrictive Layer (if present):  Type: Depth (inches):  Remarks:  Hydric Soil Prese  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Dirit Deposits (B3)  Depleted Dark Surface (F7) Wetland Surface (F7) Wetland Popressions (F8)  Hydric Soil Prese	s of hydrophytic vegetation and
Restrictive Layer (if present):  Type: Depth (inches):  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)  Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Sediment Deposits (B2) Drift Deposits (B3)  Redox Depressions (F8)  unlet  Redox Depressions (F8)  Water Stained Leaves (B9)  Water Stained Leaves (B9) (except MLRA  1, 2, 4A and 4B) Saturation (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)	
Restrictive Layer (if present):  Type: Depth (inches): Remarks:  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3)  X Oxidized Rhizospheres along Living Roots (C3)	d hydrology must be present,
Type:	ss disturbed or problematic.
Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Saturation (A3)  Water Marks (B1)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Wight Water Applied Applie	
Remarks:  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3)  X Oxidized Rhizospheres along Living Roots (C3)	
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water-Stained Leaves (B9) (except MLRA  1, 2, 4A and 4B)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  X Oxidized Rhizospheres along Living Roots (C3)	nt? Yes <u>X</u> No
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water-Stained Leaves (B9) (except MLRA  1, 2, 4A and 4B)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  X Oxidized Rhizospheres along Living Roots (C3)	
Primary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Water Stained Leaves (B9) (except MLRA  1, 2, 4A and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)	
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Water Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) X Oxidized Rhizospheres along Living Roots (C3)	Secondary Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) X Oxidized Rhizospheres along Living Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2,
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) X Oxidized Rhizospheres along Living Roots (C3)	4A and 4B)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) X Oxidized Rhizospheres along Living Roots (C3)	Drainage Patterns (B10)
Sediment Deposits (B2)  Drift Deposits (B3)  Hydrogen Sulfide Odor (C1)  X  Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
<u> </u>	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	
	Geomorphic Position (D2)
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X	Geomorphic Position (D2) Shallow Aquitard (D3)
Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)	, , ,
Water-Stained Leaves (B9) Other (Explain in Remarks)	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)	Shallow Aquitard (D3) FAC-Neutral Test (D5)
Field Observations:	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Surface Water Present? Yes No X Depth (inches):  Water table Present? Yes Depth (inches): >16"	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water table Present? Yes No X Depth (inches): ≥16" Saturation Present? Yes No X Depth (inches): ≥16" Wetland Hydi	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
(includes capillary fringe)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Remarks:	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook				Sampling	Date:	8/22/2014
Applicant/Owner:	Tillamook County						State:	OR	Sampling	Point: P-10	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:			-		
Landform (hillslop		diked floodplain		_	I relief (conca	-				Slope (%):	0-1%
Subregion (LRR):	Columbia Plateau (			_	`						: NAD27
Soil Map Unit Nar		uille silt loam, diked						ssification:		_	
•	rologic conditions on			/ear?	Yes 2				-	n in Remarks	 ;)
	, Soil				_					Yes X	
Are Vegetation	, Soil								ers in Remar		
3				, ,		,		, ,		- /	
SUMMARY O	F FINDINGS – A	ttach site map	showing	sampling	point loca	ations, tra	ansect	s, importa	ant feature	s, etc.	
Hydrophytic Vege	tation Present?	Yes X No	)								
Hydric Soil Prese	nt?	Yes X No	)		ampled Area a Wetland?	а	Yes	Χ	No		
Wetland Hydrolog	y Present?	Yes X No	)	WILLIIII	a vvetianu :						
Plot located 20 fe											
l lot located 20 ic	ct south of 1 -5.										
VEGETATION											
			Absolute	Dominant	Indicator	Dominan	ce Test v	worksheet:			
Tree Stratum (L	Jse scientific names.	1	% Cover	Species?	Status?	Number o	f Domina	ant Species			
1	oo oolonimo namoo.	,			· ——	That Are (	DBL, FAG	CW, or FAC	:	1	(A)
2						Total Num	her of D	ominant			_('')
3.					· ——	Species A				1	(B)
4						D	. D				_(D)
		Total Cover:				Are OBL,		int Species	Inat	100%	(A/B)
		rotal cover.				7 HC OBL,	171011, 0	) i i i i i i i i i i i i i i i i i i i	-	10070	_(/ (/ D)
Shrub Stratum						Prevalence	e Index	Workshee	t:		
1.							al % Cov			ultiply by:	
2.						OBL spec			x1 =	0	_
3.					· ———	FACW sp			x2 =	0	_
4.					· ——	FAC spec			x3 =	0	_
5.						FACU spe			x4 =	0	_
		Total Cover:				UPL spec			x5 =	0	_
Herb Stratum						Column T		0	(A)	0	 (B)
Phalaris arund	inacea		100	Υ	FACW			dex = B/A =		IV/0!	_` ′
2.											_
3.						Hydrophy	tic Vege	etation Indi	cators:		
4.						X		ance Test is			
5.					· ———	#DIV/0!		ence Index is			
6.					· ———		Morpho	logical Ada	ntation <sup>1</sup> (Prov	vide supportin	na
7.									on a separat		19
8.									-	ation¹ (Explair	n)
		Total Cover:	100								,
Woody Vine St	ratum					<sup>1</sup> Indicators	of hvdri	c soil and w	etland hvdrol	logy must be	
1.						present.	,			-9,	
2.						I ly dramby	4! ~				
		Total Cover:	100		· ——	Hydrophy Vegetatio					
% Ba	re Ground in Herb S		Cover of Bi	otic Crust	0	Present?	11		Yes X	No	
Remarks:						1 10001111			<u>,,                                   </u>		
Remarks.											

0-7         10YR 3/3         100         SiCI           7-14         10YR 4/2         60         10YR 3/2         30         D         M         SiCI           14-18         10YR 3/1         70         10YR 4/6         30         C         M         SiCI	marks
0-7         10YR 3/3         100         SiCI           7-14         10YR 4/2         60         10YR 3/2         30         D         M         SiCI	marks
7-14 10YR 4/2 60 10YR 3/2 30 D M SiCl 7.5YR 3/4 10 C M 14-18 10YR 3/1 70 10YR 4/6 30 C M SiCl	
7.5YR 3/4 10 C M 14-18 10YR 3/1 70 10YR 4/6 30 C M SiCI	
14-18 10YR 3/1 70 10YR 4/6 30 C M SiCI	
Trunci Co-Connectation De Depletion DM-Deduced Matrix CC-Connectation Co-Connectation Depletion DM-Deduced Matrix CC-Connectation DM-Deduced Matrix CC-Connectatio	
Trues Co-Connectation De Doubleton DM-Deduced Matrix CO-Connect on Control Con	
True C-Consertation D-Depletion BM-Defract Matrix CC-Country and Country Count	
Type, C-Concentration D-Depletion DM-Deduced Matrix CO-Coursed as October 20 and Costs 21 and the DI D. 1111 A	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, N	1=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric So	
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRF	
Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (7	·
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Rem	arks)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)  Depleted Matrix (F3)	
Thick Dark Surface (A12)  X Redox Dark Surface (F6)  3Indicators of hydrophytic vegetat	
Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  wetland hydrology must be pre	
Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problema  Restrictive Layer (if present):	IIC.
Type: Depth (inches): Hydric Soil Present? Yes X	No
Remarks: 0-7" PHAR roots	
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (any one indicator is sufficient)  Secondary Indicators (2	or more required)
Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves	
High Water Table (A2)  1, 2, 4A and 4B)  4A and 4B)	(20) (, 2,
Saturation (A3)  Salt Crust (B11)  Drainage Patterns (B1	0)
<u> </u>	•
vvater inarks (B1) Aquatic invertebrates (B13) Dry-Season Water Tai	
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Tal Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on A	3 , ( ,
Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on A	D2)
Sediment Deposits (B2)  Drift Deposits (B3)  Hydrogen Sulfide Odor (C1)  X Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (	•
Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on A	•
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Saturation Visible on A Geomorphic Position (C4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)	)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Hydrogen Sulfide Odor (C1)  Aydrogen Sulfide Odor (C1)  Saturation Visible on Aydrogen Sulfide Odor (C1)  Segmont Deposits (B3)  Aydrogen Sulfide Odor (C1)  Saturation Visible on Aydrogen Sulfide Odor (C1)  Feenote of Reduced Iron (C4)  Recent Iron Reduction in Plowed Soils (C6)  FAC-Neutral Test (D5)	) 06) ( <b>LRR A</b> )
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Hydrogen Sulfide Odor (C1)  A Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowed Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Saturation Visible on A  Geomorphic Position (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D1)	) 06) ( <b>LRR A</b> )
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on A  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (C4)  Shallow Aquitard (D3)  Recent Iron Reduction in Plowed Soils (C6)  X FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D1)  Sparsely Vegetated Concave Surface (B8)  Field Observations:	) 06) ( <b>LRR A</b> )
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Hydrogen Sulfide Odor (C1)  Algal Mat or (Crust (B4)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowed Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No X  Depth (inches):	) 06) ( <b>LRR A</b> )
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No X  Depth (inches):  Water table Presents (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Feecent Iron Reduction in Plowed Soils (C6)  X  FAC-Neutral Test (D5)  Recent Iron Reduction in Plowed Soils (C6)  X  FAC-Neutral Test (D5)  Raised Ant Mounds (D  Cher (Explain in Remarks)  Frost-Heave Hummoc	) 06) ( <b>LRR A</b> ) ks (D7)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on A Geomorphic Position (Geomorphic Position (C4)  Fresence of Reduced Iron (C4)  Recent Iron Reduction in Plowed Soils (C6)  X FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D1)  Cher (Explain in Remarks)  Frost-Heave Hummoc Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No X  Depth (inches):  Value of C1  Depth (inches):  Value of C1  Saturation Visible on A Geomorphic Position (C4)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Facility (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D1)  Frost-Heave Hummoc Sparsely Vegetated Concave Surface (B8)	) 06) ( <b>LRR A</b> )
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water table Present?  Saturation Visible on A Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (C4)  Shallow Aquitard (D3)  Recent Iron Reduction in Plowed Soils (C6)  X FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D7)  Other (Explain in Remarks)  Frost-Heave Hummoc Present (C7)  Saturation Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  (includes capillary fringe)  Wetland Hydrology Present? Yes  (includes reprince)	) 06) ( <b>LRR A</b> ) ks (D7)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water table Present?  Yes  No X  Depth (inches):  Water Staired Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:	) 06) ( <b>LRR A</b> ) ks (D7)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water table Present?  Saturation Visible on A Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (C4)  Shallow Aquitard (D3)  Recent Iron Reduction in Plowed Soils (C6)  X FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D7)  Other (Explain in Remarks)  Frost-Heave Hummoc Present (C7)  Saturation Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  No X  Depth (inches):  Saturation Present?  Yes  (includes capillary fringe)  Wetland Hydrology Present? Yes  (includes reprince)	) 06) ( <b>LRR A</b> ) ks (D7)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water table Present?  Yes  No X  Depth (inches):  Water Staired Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:	) 06) ( <b>LRR A</b> ) ks (D7)

Project/Site: Tillamook - Southern Flow Corridor		City/County	: Tillamook			Sampling	Date:	8/22/2014	
Applicant/Owner: Tillamook County				(	State: OR	Sampling	Point: P-11		
Investigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	nip, Range:	1S 10W Sec 23	_			
Landform (hillslope, terrace, etc.): diked floodplain		_		_	none): concave		Slope (%):	0-1%	
Subregion (LRR): NW Forests and Coasts (LRR A)	Lat:	_	`		Long:			: NAD27	
Soil Map Unit Name: (103A) Coquille silt loam, diked					WI Classification:		_		
Are climatic / hydrologic conditions on the site typical for the		vear?	Yes 2		No		n in Remarks	3)	
Are Vegetation, Soil, or Hydrology	-		_		mal Circumstances	-			
Are Vegetation , Soil , or Hydrology					I, explain any answ				
<del></del>							,		
SUMMARY OF FINDINGS – Attach site map	snowing	sampling	point ioca	ations, trar	isects, importa	ant reature	s, etc.		
Hydrophytic Vegetation Present?  Yes X  No		Is the S	ampled Area	a					
Hydric Soil Present? YesNo	<u>X</u>		ampied Area a Wetland?	Yes		_ No X			
Wetland Hydrology Present?   YesNo	<u>X</u>								
VEGETATION				1					
	Absolute	Dominant	Indicator	Dominance	Test worksheet:				
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?		Dominant Species	That			
l				Are OBL, F	ACW, or FAC:		2	(A)	
2.				Total Numb	er of Dominant				
3.				Species Aci	ross All Strata:		3	(B)	
4.				Percent of [	Dominant Species	That		_	
Total Cover:					ACW, or FAC:		67%	_(A/B)	
Shrub Stratum				Prevalence	Index Workshee	t:			
1. Rubus armeniacus	15	Υ	FACU		% Cover of:		ultiply by:		
2.			-	OBL specie		x1 =	0	<del>_</del>	
5				FACW spec		x2 =	0	_	
4.		-		FAC specie		x3 =	0	_	
5.				FACU spec		x4 =	0	_	
Total Cover:	15		-	UPL specie	·	x5 =	0	_	
Herb Stratum				Column Tot		(A)	0	(B)	
1. Festuca arundinacea	60	Υ	FAC		ence Index = B/A =		IV/0!	_(=)	
2. Holcus lanatus	40	Y	FAC					_	
3.		-		Hydrophyti	ic Vegetation Indi	cators:			
4.		-			Dominance Test is				
5.	-	-			Prevalence Index is				
5.					Morphological Ada		vide sunnortir	na	
7.			-		data in Remarks or			19	
3.			-		Problematic Hydro			n)	
Total Cover:	100		-		,,,,,	, , , , , ,	( )	,	
Woody Vine Stratum				<sup>1</sup> Indicators of present.	of hydric soil and w	etland hydro	logy must be	:	
1 2.			· -	'					
 Total Cover:	115			Hydrophyti					
% Bare Ground in Herb Stratum %		otic Cruet	0	Vegetation Present?		Yes X	No		
	OOVEL OF DIC	Juo Orust		i rescrit?		163 /			
Remarks:									

Profile Des	cription: (Describe	to the de	epth needed to	document	the indic	ator or	confirm the abser	nce of indicators.)	
Depth	Matrix			Redox Feat			<del>_</del>		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc	<sup>2</sup> Texture	Remarks	
0-10	10YR 3/3	100					SiCl		
10-14	10YR 3/3	95	7.5YR 3/4	5	С	М	SiCl		
14-18	10YR 3/2	90	7.5YR 4/6	10_	С	M	SiCl		
							_	<u> </u>	
						-			
<sup>1</sup> Type: C=C	concentration, D=Depl	etion, RI	M=Reduced Ma	trix, CS=Co	vered or C	Coated	Sand Grains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applica	able to a	II LRRs, unless	s otherwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :	
Histosol (A1) Sandy Redox (S5)						2 cm Muck (A10) (LRR B)			
Histic I	Epipedon (A2)		Strip	ped Matrix (	S6)			Red Parent Material (TF2)	
Black I	Histic (A3)		Loar	ny Mucky M	ineral (F1	l) (exce	pt MLRA 1)	Other (Explain in Remarks)	
Hydrog	gen Sulfide (A4)		Loar	ny Gleyed M	1atrix (F2	2)		_ Very Shallow Dark Surface (TF12)	
Deplet	ed Below Dark Surfac	e (A11)	Depl	eted Matrix	(F3)				
Thick [	Dark Surface (A12)			ox Dark Surf				rs of hydrophytic vegetation and	
Sandy	Muck Mineral (S1)		Depl	eted Dark S	urface (F	7)	wetlan	d hydrology must be present,	
Sandy	gleyed Matrix (S4)		Redo	ox Depression	ons (F8)		unles	ss disturbed or problematic.	
Restrictive	Layer (if present):								
Туре:									
Depth (inch	es):						Hydric Soil Preser	nt? Yes No X	
Remarks:						-			
HYDROLOGY	,								
	drology Indicators:								
-	cators (any one indica	ator is su	fficient)					Secondary Indicators (2 or more required)	
	e Water (A1)			er-Stained L	eaves (B9	9) ( <b>exc</b> e	ept MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,	
	Vater Table (A2)			, 2, 4A and		, (	·	4A and 4B)	
	tion (A3)			Crust (B11)	,			Drainage Patterns (B10)	
	Marks (B1)			Aquatic Invertebrates (B13)  Dry-Season Water Table (C2					
	nent Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery (C9)								
	eposits (B3)			-			ing Roots (C3)	Geomorphic Position (D2)	
Algal N	Mat or Crust (B4)		Pres	ence of Rec	luced Iron	n (C4)		Shallow Aquitard (D3)	
	eposits (B5)			ent Iron Red			Soils (C6)	FAC-Neutral Test (D5)	
Surfac	e Soil Cracks (B6)		 Stun	ted or Stres	sed Plant	ts (D1) (	LRR A)	Raised Ant Mounds (D6) ( <b>LRR A</b> )	
Water-	Stained Leaves (B9)		Othe	r (Explain ir	Remarks	s)		Frost-Heave Hummocks (D7)	
Sparse	ely Vegetated Concav	e Surfac	e (B8)						
Field Obse			No V	onth /incha-	١-				
Water table	ter Present? Yes Present? Yes			pth (inches) pth (inches)					
Saturation F				pth (inches)			Wetland Hydro	ology Present? YesNo_X	
(includes ca	pillary fringe)			. , ,					
Describe Reco	orded Data (stream ga	auge, mo	nitoring well, ac	erial photos,	previous	inspect	ions), if available:		
Remarks: Plot	at edge of wetland, s	oils satu	rated within 10 t	eet of this n	lot.				
	. a. oago or wolland, s	JiiJ Julu	. S.CG WIGHII IV	200 or 1110 p	.50.				

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County	: Tillamook				Sam	pling Da	ıte:	8/22/2014
-	Tillamook County			. , ,			State:	OR	-		oint: P-12	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	=		-			
Landform (hillslop		diked floodplain		_	I relief (conc						Slope (%):	0-1%
	Columbia Plateau (			_	•	45.46996	_			.87528		: NAD27
Soil Map Unit Nar		uille silt loam, diked	_				_	ssification:				
•	rologic conditions on			vear?	Yes						n Remarks)	)
Are Vegetation	, Soil				_		-		_		Yes X	
Are Vegetation		, or Hydrology						in any ansv				
7110 Vogotation	, con			riatarany pr	obioinatio.	(11.11000)	оч, охріч	in any anov	7010 1111	torriarito.	• /	
SUMMARY O	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects	s, import	ant fea	itures,	etc.	
I budas also dis Mossa	4-4i D	V V NI	_									
Hydrophytic Vege		Yes X No	-	Is the S	ampled Area	a	Yes		No X			
Hydric Soil Prese			o <u>X</u> o X	within	a Wetland?		162		_ NO <u>^</u>			
Wetland Hydrolog			-									
Plot located appro	oximately 15 feet sou	ui oi P-11 in transe	ect.									
VEGETATION						Г						
			Absolute	Dominant	Indicator			vorksheet:				
Tree Stratum (U	Jse scientific names.	)	% Cover	Species?	Status?			nt Species				
1					<u> </u>	That Are (	JBL, FAC	CW, or FAC	: _		2	_(A)
2						Total Num						
3						Species A	cross All	Strata:	_		3	_(B)
4						Percent of	f Domina	nt Species	That			
		Total Cover	:			Are OBL,	FACW, o	r FAC:	_	67	7%	_(A/B)
Shrub Stratum					EAGU			Workshee	t:			
1. Rubus armenia	acus		20	Y	FACU	-	al % Cove	er of:	- <u> </u>	•	ply by:	_
2						OBL spec	-		_x1 =		0	_
3			-		<del></del>	FACW spe	=		_x2 =		0	=
4						FAC spec	-		_x3 =		0	_
5					<del></del>	FACU spe	=		_x4 =		0	=
III. I Otto I		Total Cover	:20			UPL speci	-		_x5 =		0	- (D)
Herb Stratum			40	V	FAC	Column To	=	0	(A)		0	_(B)
1. Festuca arundi			40	<u>Y</u> Y	FAC	Preva	ience ind	lex = B/A =		#DIV/	U!	-
2. Holcus lanatus			40	-	FAC	Lludranh	tio Voca	tation Indi	ootoro:			
<ol> <li>Agrostis capilla</li> <li>Phalaris arund</li> </ol>			10	N N	FACW	X	•	nce Test is				
<ol> <li>Prialaris arunu.</li> <li>5.</li> </ol>	macea			IN	- TACW	-		nce Index i				
6.			-		<del></del>	#DIV/0:						
7				· <del></del>				logical Ada Remarks o			e supporting	g
8.				· <del></del>						•	n¹ (Explain	1)
o		Total Cover	: 100		<del></del>		i iobien	ialic i iyulo	priyuc v	egetatio	II (Explail)	')
Woody Vine St	ratum	Total Cover				<sup>1</sup> Indicators	of hydri	c soil and w	otland k	avdrolog	v must ha	
1	<u>addin</u>					present.	s or riyuri	5 SOII AITU W	relianu i	iyurology	y must be	
2.												
		Total Cover	: 120	· <del></del>		Hydrophy						
% Ba	re Ground in Herb S		Cover of Bi		0	Vegetatio Present?	on		Yes X		No	
Remarks:			JU.01 01 DI	5.401		5001111			. 30 <u>//</u>			
nciliaiks.												

Profile Des	scription: (Describe	to the de	epth needed to do	cument	the indic	ator or	confirm the ab	sence of indicators.)
Depth	Matrix		Re	dox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc	<sup>2</sup> Texture	Remarks
0-9	10YR 3/3	100					SiCl	
9-13	10YR 3/3	85	7.5YR 3/4	15	С	М	SiL	
13-16	10YR 3/2	70	7.5YR 3/4	30	С	М	SiL	
· ———						_		
	· -							
	· -							
<sup>1</sup> Type: C=	Concentration, D=Dep	letion, RI	M=Reduced Matrix	, CS=Cov	vered or C	Coated	Sand Grains. <sup>2</sup> L	ocation: PL=Pore Lining, M=Matrix.
Hydric Soi	il Indicators: (Applic	able to a	III LRRs, unless o	therwise	noted.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histos	sol (A1)		Sandy	Redox (S	5)		_	2 cm Muck (A10) ( <b>LRR B</b> )
Histic	Epipedon (A2)		Strippe	d Matrix (	S6)		_	Red Parent Material (TF2)
Black	Histic (A3)		Loamy	Mucky M	ineral (F1	1) (exce	ept MLRA 1)	Other (Explain in Remarks)
Hydro	ogen Sulfide (A4)		Loamy	Gleyed M	1atrix (F2	2)		
Deple	eted Below Dark Surfa	ce (A11)	Deplete	ed Matrix	(F3)			
Thick	Dark Surface (A12)			Dark Surf			<sup>3</sup> Indica	ators of hydrophytic vegetation and
Sand	y Muck Mineral (S1)		Deplete	ed Dark S	urface (F	7)	wet	land hydrology must be present,
Sand	y gleyed Matrix (S4)		Redox	Depression	ons (F8)		ur	nless disturbed or problematic.
Restrictive	e Layer (if present):							
Type:								
Depth (inch	nes):						Hydric Soil Pre	sent? Yes No <u>X</u>
Remarks:						•		
HYDROLOG	·Y							
	lydrology Indicators:							
	dicators (any one indic		ifficient)					Secondary Indicators (2 or more required)
	ce Water (A1)			Stained L	eaves (B9	9) ( <b>exc</b>	ept MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
	Water Table (A2)			4A and		, (	·	4A and 4B)
	ation (A3)		Salt Cr	ust (B11)	,		-	Drainage Patterns (B10)
Water	r Marks (B1)				rates (B1	3)	<del>-</del>	Dry-Season Water Table (C2)
Sedin	nent Deposits (B2)		Hydrog	en Sulfide	e Odor (C	C1)	<del>-</del>	Saturation Visible on Aerial Imagery (C9)
Drift [	Deposits (B3)		Oxidize	d Rhizos	pheres al	long Liv	ring Roots (C3)	Geomorphic Position (D2)
Algal	Mat or Crust (B4)		Presen	ce of Red	luced Iron	n (C4)	_	Shallow Aquitard (D3)
Iron E	Deposits (B5)		Recent	Iron Red	uction in I	Plowed	Soils (C6)	FAC-Neutral Test (D5)
Surfa	ce Soil Cracks (B6)		Stunted	or Stres	sed Plant	ts (D1)	(LRR A)	Raised Ant Mounds (D6) (LRR A)
Water	r-Stained Leaves (B9)		Other (	Explain in	Remarks	s)	_	Frost-Heave Hummocks (D7)
Spars	sely Vegetated Concav	ve Surfac	e (B8)					<del></del> -
Field Obse	ervations:							
	ater Present? Yes			n (inches)				
Water table Saturation				n (inches) n (inches)			Watland Hu	drology Present? Yes No X
	Present? Yes apillary fringe)	·	NO A Depu	i (iliches)	j. <u>~ 10</u>		vvetianu fly	drology Present? YesNo X
	corded Data (stream g	auge, mo	onitoring well, aeria	l photos,	previous	inspec	tions), if available	9:
Remarks:								

Project/Site:	Tillamook - Southerr	Flow Corridor		City/County:	Tillamook				Samplin	g Date:		8/22/2014
Applicant/Owner:	Tillamook County						State: O	R	Samplin	g Point: I	P-13	
Investigator(s):	Greta Presley and S	hane Latimer		Sec	tion, Townsh	ip, Range:			_	_		
Landform (hillslope		diked floodplain		_	I relief (conca					Slope	(%):	0-1%
` .	Columbia Plateau (L		Lat:	_		45.46996					. ,	NAD27
Soil Map Unit Nan		ille silt loam, diked	-				NWI Class					
•	ologic conditions on t			/ear?	Yes 2				(If no, expl	ain in Ren	narks)	
	, Soil				_				s" Present?			
Are Vegetation	, Soil								vers in Rem	_		
, as regulation	,	_, c, a. c. egy		natarany pr	00.0	(	ou, oxpiuii.	u, u				
SUMMARY OF	FINDINGS - At	tach site map	showing	sampling	point loca	ations, tra	ansects,	import	ant featui	res, etc.		
Hydrophytic Vege	tation Present?	Yes X No	)									
Hydric Soil Preser	nt?	Yes No	X		ampled Area a Wetland?	3	Yes		No X			
Wetland Hydrolog	y Present?	Yes No	X	WILLIIII	a vvetianu:		_					
Plot located appro	ximately 10 feet sout	h of P-12; 7 feet n	orth of E-W	l dirt road, 20	feet west of	N-S dirt roa	ıd.					
VEGETATION												
			Absolute	Dominant	Indicator	Dominano	ce Test wo	rksheet:				
Tree Stratum (III	se scientific names.)		% Cover	Species?	Status?	Number of	f Dominani	Species				
1	se scientific flames.)				. ———	That Are C		•		1		(A)
2					. ———	Total Num	bor of Dor	ninant				(A)
2					. ———	Species A				2		(B)
J					. ———							.(Б)
T		Total Cover:		-		Percent of Are OBL,		•	That	50%		(A/B)
Chrub Ctratum						Prevalenc	a Inday M	/orkoboo	4.			
Shrub Stratum  1. Rubus armenia	0110		10	Y	FACU		al % Cover			Multiply by	,.	
2.	cus		10	<u></u>	1700	-		OI.		Multiply by	•	
2.				-		OBL speci		5	_x1 =	0		•
٥. س						FACW speci			_x2 =	10		
4						FACU speci		100 10	-	300		
J		Total Cover:	10			UPL speci	-	10	_x4 = x5 =	40 0		
Herb Stratum		Total Cover.				Column To		115	(A)	350		(B)
1. Festuca arundii	2000		90	Y	FAC		lence Inde		- ' '	3.0		(6)
	nacea		10	N	FAC	Fieva	ience mae	x – b/A –		3.0		•
<ol> <li>Holcus lanatus</li> <li>Phalaris arundi</li> </ol>			5	N	FACW	l lucal manada s	utia Manata	ation Indi				
<ol> <li>Priaiaris arunui.</li> <li>4.</li> </ol>	пасеа			IN	TACVV	Hydrophy	Dominan					
4 5.					- ——		Prevalen					
6.					- ——							
				-					ptation <sup>1</sup> (Pr r on a separ			3
7 8.				-					phytic Vege			`
o		Total Cover:	105				Problema	ilic Hyuro	priytic vege	tation (⊏.	хріаін	,
Woody Vine Str	ratum_	Total Cover.	105			<sup>1</sup> Indicators present.	of hydric	soil and v	vetland hydr	ology mus	st be	
1 2.			-	-	<u> </u>		·4! a					
-		Total Cover:	115			Hydrophy Vegetatio						
% Ba	re Ground in Herb Str	ratum %	Cover of Bio	otic Crust	0	Present?	••		Yes X	No		
Remarks:		<del></del>				<u> </u>						

Depth Mat	rix	Re	dox Featur	res			
(inches) Color (mois	st) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16 10YR 3/3	100					gravelly SiL	likely fill material
<sup>1</sup> Type: C=Concentration, D	D=Depletion, RI	√=Reduced Matrix	, CS=Cove	ered or Coa	ted Sar	nd Grains. <sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (A	Applicable to a	II LRRs, unless o	 therwise r	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	.,		Redox (S5)	-			2 cm Muck (A10) ( <b>LRR B</b> )
Histic Epipedon (A2)			d Matrix (S				Red Parent Material (TF2)
Black Histic (A3)			-	eral (F1) (	xcept l	MLRA 1)	Other (Explain in Remarks)
Hydrogen Sulfide (A4)	)	Loamy	Gleyed Ma	itrix (F2)			
Depleted Below Dark	Surface (A11)	Deplete	ed Matrix (F	<del>-</del> 3)			
Thick Dark Surface (A	<b>\12</b> )	Redox I	Dark Surfa	ce (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and
Sandy Muck Mineral (	(S1)	Deplete	ed Dark Sur	rface (F7)		wetland	l hydrology must be present,
Sandy gleyed Matrix (	S4)	Redox [	Depression	ns (F8)		unles	s disturbed or problematic.
Restrictive Layer (if prese	ent):						
Restrictive Layer (ii prese							
Type: Depth (inches):		<u> </u>			Ну	dric Soil Presen	t? Yes No <u>X</u>
Type:		_			Ну	dric Soil Presen	t? Yes No <u>X</u>
Type: Depth (inches):					Ну	dric Soil Presen	t? Yes No <u>X</u>
Type: Depth (inches): Remarks:	New Co.				Ну	dric Soil Presen	t? Yes No <u>X</u>
Type: Depth (inches): Remarks:  HYDROLOGY Wetland Hydrology Indica		fficient			Ну		
Type: Depth (inches): Remarks:  HYDROLOGY  Wetland Hydrology Indicators (any one			Stained Lea	avas (RQ) (			Secondary Indicators (2 or more required
Type: Depth (inches):  Remarks:  HYDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1)	e indicator is su	Water-S		aves (B9) (			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2,
Type: Depth (inches):  Remarks:  HYDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2)	e indicator is su	Water-S 1, 2,	4A and 4I				Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2,
Type: Depth (inches):  Remarks:  RYDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3)	e indicator is su	Water-S <b>1, 2,</b> Salt Cru	4A and 4I ust (B11)	<b>B</b> )			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10)
Type: Depth (inches):  Remarks:  RYDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic	4A and 4I ust (B11) Invertebra	<b>B</b> ) ates (B13)			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Type: Depth (inches):  Remarks:  Rem	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydroge	4A and 4i ust (B11) Invertebra en Sulfide	B) ates (B13) Odor (C1)	except	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
Type: Depth (inches):  Remarks:  Rem	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydrogo Oxidize	4A and 4Bust (B11) Invertebra en Sulfide en	B) ates (B13) Odor (C1) heres along	except		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)
Type: Depth (inches):  Remarks:  Rem	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydrogo Oxidize Presence	4A and 4I ust (B11) Invertebra en Sulfide d Rhizosph ce of Redu	ates (B13) Odor (C1) heres along ced Iron (C	except Living 4)	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
Type: Depth (inches):  Remarks:  Rem	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydrogo Oxidize Preseno Recent	4A and 4I ust (B11) Invertebra en Sulfide d Rhizosph ce of Redu Iron Reduc	tes (B13) Odor (C1) neres along ced Iron (C	Except Living 4) wed So	MLRA Roots (C3) ils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Depth (inches):  Remarks:  Rem	e indicator is su  2)  32)  4)  B6)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Redu Iron Reduct	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I	Except Living 4) wed So	MLRA Roots (C3) ils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Type: Depth (inches): Remarks:  Remarks:  RYDROLOGY  Wetland Hydrology Indicates Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B4) Water-Stained Leaves	e indicator is su  2)  32)  4)  B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (E	4A and 4I ust (B11) Invertebra en Sulfide d Rhizosph ce of Redu Iron Reduc	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I	Except Living 4) wed So	MLRA Roots (C3) ils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Depth (inches):  Remarks:  Rem	e indicator is su  2)  32)  4)  B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (E	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Redu Iron Reduct	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I	Except Living 4) wed So	MLRA Roots (C3) ils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Type: Depth (inches): Remarks:  Remarks:  RYDROLOGY  Wetland Hydrology Indicates Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B4) Water-Stained Leaves	e indicator is su  2)  32)  4)  B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presenc Recent Stunted Other (E	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Redu Iron Reduct	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I	Except Living 4) wed So	MLRA Roots (C3) ils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Type: Depth (inches): Remarks:  Rema	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   (B8)   Depth   No   X   Depth   Depth   Depth   Depth   Depth   Common   Comm	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Reduct Iron Reduct I or Stresse Explain in F	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I Remarks)	Except Living 4) wed So	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Type: Depth (inches):  Remarks:  Rem	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   (B8)   Depth   No   X   Depth   Depth   Depth   Depth   Depth   Common   Comm	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Reduct Iron Reduct I or Stresse Explain in F	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I Remarks)	Except Living 4) wed So	MLRA Roots (C3) ils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Type: Depth (inches):  Remarks:  Rem	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface  Yes Yes Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   E   E   E   E   E   E   E   E	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Reduct Iron Reduct I or Stresse Explain in F	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I Remarks)  >16" >16"	Living 4) wed So 01) (LR	MLRA Roots (C3) ils (C6) R A)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Type: Depth (inches):  Remarks:  Rem	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface  Yes Yes Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   E   E   E   E   E   E   E   E	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Reduct Iron Reduct I or Stresse Explain in F	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I Remarks)  >16" >16"	Living 4) wed So 01) (LR	MLRA Roots (C3) ils (C6) R A)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Type: Depth (inches):  Remarks:  Rem	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface  Yes Yes Yes Yes	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   Oxidize   Presence   Recent   Stunted   Other (E   E   E   E   E   E   E   E   E   E	4A and 4I ust (B11) Invertebra en Sulfide ( d Rhizosph ce of Reduct Iron Reduct I or Stresse Explain in F	ates (B13) Odor (C1) heres along ced Iron (C ction in Plo ed Plants (I Remarks)  >16" >16"	Living 4) wed So 01) (LR	MLRA Roots (C3) ils (C6) R A)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Applicant/Owner: Tillamook County Investigator(s): Greta Presley and Shane Latimer Landform (hillslope, terrace, etc.): diked floodplain Subregion (LRR): NW Forests and Coasts (LRR A)		Soci			State: OR	Sampli	ing Point: P-14	
Landform (hillslope, terrace, etc.): diked floodplain		Soci						
· · · · · · · · · · · · · · · · · · ·		360	tion, Townsh	ip, Range:	1S 10W Sec 23	_		
\(\frac{1}{2}\)		Local	I relief (conca	ave, convex	none): flat		Slope (%)	: 0-1%
	Lat:	_			Long:			n: NAD27
Soil Map Unit Name: (103A) Coquille silt loam, diked					NWI Classification:			
Are climatic / hydrologic conditions on the site typical for t		/ear?	Yes	X			olain in Remark	s)
Are Vegetation, Soil, or Hydrology	-		_		ormal Circumstance			
Are Vegetation, Soil, or Hydrology					d, explain any ansv			
SUMMARY OF FINDINGS – Attach site map								
Hydrophytic Vegetation Present? Yes X No		lo the S	ampled Area	_				
Hydric Soil Present? Yes No	Χ		ampled Area a Wetland?	đ	Yes	No X		
Vetland Hydrology Present? YesNo		With the second	u Wolland.		·	-		
/EGETATION								
	Absolute	Dominant	Indicator	Dominano	e Test worksheet:			
For Otrotom (Harasinalife annual)	% Cover	Species?	Status?		Dominant Species			
Tree Stratum (Use scientific names.)		<u> </u>	· ——		FACW, or FAC:	mat	_	(4)
· <del></del>		-	- ——		•		2	(A)
		-	· ——		ber of Dominant cross All Strata:		•	(D)
b							2	(B)
Total Cover:					Dominant Species FACW, or FAC:	That ——	100%	(A/B)
Shrub Stratum				Prevalenc	e Index Workshee	t:		
					I % Cover of:		Multiply by:	
		-		OBL speci		x1 =	0	
				FACW spe			0	_
				FAC speci		x3 =	0	<del>_</del>
i.		-		FACU spe		x4 =	0	
Total Cover:		-		UPL speci	·	x5 =	0	
Herb Stratum				Column To		(A)	0	 (B)
. Festuca arundinacea	80	Υ	FAC		ence Index = B/A =		#DIV/0!	_ ` ′
Juncus effusus	20	Y	FACW					
3. Lotus corniculatus	10	N	FAC	Hydrophy	tic Vegetation Indi	cators:		
Holcus lanatus	5	N	FAC	X	Dominance Test is			
5.				#DIV/0!	Prevalence Index i	s ≤3.0 <sup>1</sup>		
).					Morphological Ada	ntation <sup>1</sup> (F	Provide supporti	na
·.					data in Remarks of			''9
3.					Problematic Hydro			n)
Total Cover:	115				,	. , .		,
Woody Vine Stratum				<sup>1</sup> Indicators present.	of hydric soil and w	etland hyd	drology must be	е
2	_ <del>_</del>			Hydrophy	tic			
Total Cover:				Vegetatio				
% Bare Ground in Herb Stratum %	Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks:								

(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	0YR 3/2+	100			·		SiL	
6-16 1	0YR 3/3	100					cobbly SiL	fill material
Type: C=Coi	ncentration, D=Dep	letion, RM	1=Reduced Mat	ix, CS=Co	vered or Co	ated Sa	nd Grains. <sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix.
lydric Soil Ir	ndicators: (Applic	able to al			=		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol	` '			y Redox (S	'			2 cm Muck (A10) (LRR B)
	pipedon (A2)			ed Matrix (				Red Parent Material (TF2)
Black His				-	lineral (F1)	(except	MLRA 1)	Other (Explain in Remarks)
	n Sulfide (A4)	(044)		y Gleyed M				Very Shallow Dark Surface (TF12)
	d Below Dark Surfa ark Surface (A12)	ce (ATT)		eted Matrix	-		<sup>3</sup> Indicator	s of hydrophytic vegetation and
	luck Mineral (S1)			x Dark Surf	ace (F0) Surface (F7)			f hydrology must be present,
	leyed Matrix (S4)			x Depression				s disturbed or problematic.
	ayer (if present):				()			
ype:								
epth (inches	):					Ну	dric Soil Presen	t? Yes No <u>X</u>
DROLOGY						Ну	rdric Soil Presen	t? Yes No <u>X</u>
epth (inches narks: DROLOGY /etland Hyd	rology Indicators:					Ну		
pepth (inches marks: DROLOGY Vetland Hydining Indica	rology Indicators: ators (any one indic			· Stained L	ogyes (PO)			Secondary Indicators (2 or more required
epth (inches narks:  DROLOGY /etland Hyd rimary Indica Surface	rology Indicators: ators (any one indic Water (A1)		Wate		eaves (B9)			Secondary Indicators (2 or more required Water-Stained Leaves (B9) ( <b>MLRA 1, 2</b> ,
DROLOGY /etland Hydrimary Indica Surface High Wa	rology Indicators: ators (any one indic Water (A1) tter Table (A2)		Wate 1,	2, 4A and	4B)			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2,
DROLOGY Vetland Hydrimary Indica Surface High Wa Saturatio	rology Indicators: ators (any one indic Water (A1) ater Table (A2) on (A3)		Wate 1, Salt (	<b>2, 4A and</b> Crust (B11)	<b>4B</b> )	(except		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10)
PROLOGY Vetland Hydrimary Indica Surface High Wa Saturation Water M	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1)		Wate Salt ( Aqua	<b>2, 4A and</b> Crust (B11) tic Inverteb	4B)	(except		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLOGY /etland Hydrimary Indica Surface High Wa Saturatic Water M Sedimen	rology Indicators: ators (any one indic Water (A1) ater Table (A2) on (A3)		Wate 1, Salt ( Aqua Hydro	<b>2, 4A and</b> Crust (B11) tic Invertebogen Sulfide	<b>4B</b> ) rates (B13) e Odor (C1)	(except		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLOGY  /etland Hydrimary Indica  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)		Wate 1, Salt ( Aqua Hydro	2, 4A and a Crust (B11) tic Invertebrogen Sulfide zed Rhizos	<b>4B</b> ) rates (B13) e Odor (C1)	(except	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
DROLOGY Vetland Hydi rimary Indica Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		Wate	2, 4A and a Crust (B11) tic Invertebrogen Sulfide zed Rhizos ence of Red	4B) rates (B13) e Odor (C1) pheres alor	(except	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)
DROLOGY Vetland Hydrimary Indicator Surface High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6)	cator is suf	Wate	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red nt Iron Red	rates (B13) e Odor (C1) pheres alor duced Iron (	(except	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
DROLOGY    Vetland Hydromary Indication Surface   High Wa	rology Indicators: ators (any one indicators) Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) tained Leaves (B9)	cator is suf	Wate 1, Salt ( Aqua Hydro Oxidi Prese Rece Stunt Other	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red nt Iron Red ed or Stress	rates (B13) e Odor (C1) pheres alor duced Iron ( luction in Pl	(except	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
DROLOGY  /etland Hydrimary Indica Surface High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-Si Sparsely	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) tained Leaves (B9)	cator is suf	Wate 1, Salt ( Aqua Hydro Oxidi Prese Rece Stunt Other	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red nt Iron Red ed or Stress	rates (B13) e Odor (C1) pheres alor duced Iron ( luction in Plased Plants	(except	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-Si Sparsely	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) tained Leaves (B9) r Vegetated Concar ations:	ve Surface	Wate	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red ant Iron Red ed or Stress	rates (B13) e Odor (C1) pheres alor duced Iron ( luction in Ple sed Plants n Remarks)	(except	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOGY Vetland Hydrimary Indicator Surface High Wasturation Water M Sediment Drift Dep Algal Ma Iron Dep Surface Water-Si Sparsely urface Water Urface Water Water Water-Si Sparsely	rology Indicators: ators (any one indicators) Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) tained Leaves (B9) r Vegetated Concar ations: r Present? Yes	ve Surface	Wate	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red ant Iron Red ed or Stres:  (Explain in both (inches)	rates (B13) e Odor (C1) pheres alor duced Iron ( luction in Ple sed Plants n Remarks)	(except	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOGY Vetland Hydrimary Indicator Surface High Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-Si Sparsely ield Observator	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) tained Leaves (B9) r Vegetated Concar ations: r Present? Yes esent? Yes	ve Surface	Wate	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red ant Iron Red ed or Stress	rates (B13) e Odor (C1) pheres alor duced Iron ( luction in Ple sed Plants n Remarks)  ): >16"	(except	MLRA Roots (C3) bils (C6)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
DROLOGY Vetland Hydrimary Indication Surface High Waster M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-Si Sparsely ield Observation Vater table Platuration Prencludes capi	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) tained Leaves (B9) r Vegetated Concar ations: r Present? Yes resent? Yes esent? Yes llary fringe)	ve Surface	Wate	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red ent Iron Red ed or Stress (Explain in both (inches) oth (inches) oth (inches)	rates (B13) e Odor (C1) pheres alor duced Iron ( luction in Plased Plants in Remarks)  i: >16" >16"	(except ) ng Living C4) owed Sc (D1) (LR	MLRA Roots (C3) bils (C6) RR A) Wetland Hydro	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
DROLOGY /etland Hydrimary Indica Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-Si Sparsely ield Observation Prencludes capi	rology Indicators: ators (any one indic Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) tained Leaves (B9) r Vegetated Concar ations: r Present? Yes esent? Yes	ve Surface	Wate	2, 4A and Crust (B11) tic Invertebogen Sulfide zed Rhizos ence of Red ent Iron Red ed or Stress (Explain in both (inches) oth (inches) oth (inches)	rates (B13) e Odor (C1) pheres alor duced Iron ( luction in Plased Plants in Remarks)  i: >16" >16"	(except ) ng Living C4) owed Sc (D1) (LR	MLRA Roots (C3) bils (C6) RR A) Wetland Hydro	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	: Tillamook				Sampli	ng Date:		8/22/2014
Applicant/Owner:	Tillamook County						State:	OR	Sampli	ng Point:	P-15	
Investigator(s):	Greta Presley and	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10V	V Sec 23	_	_		
Landform (hillslop	e, terrace, etc.):	diked floodplain		Loca	l relief (conca	ave, convex	, none):	flat		Slope	(%):	0-1%
Subregion (LRR):	Columbia Plateau (			_	`							NAD27
Soil Map Unit Nar		uille silt loam, diked	_					ssification:				
•	ologic conditions on			/ear?	Yes					olain in Ren	narks)	
	, Soil				_			rcumstance				
Are Vegetation		, or Hydrology						in any ansv		-		
7 ne vegetation	, con	, or rivarology		naturally pr	obiematio:	(11 110000	за, схріа	an any ano	WCIO III I (CI	narko.)		
SUMMARY OF	F FINDINGS – A	ttach site map	showing	sampling	point loca	ations, tra	ansect	s, import	ant featu	ıres, etc.	ı	
Hydrophytic Vege	tation Present?	Yes No	X									
Hydric Soil Presei	nt?	Yes No	X		ampled Area a Wetland?	1	Yes		No X			
Wetland Hydrolog	y Present?	Yes No		Within	a Wellallu:							
Plot located appro	oximately 30 feet wes											
VEGETATION												
			Absolute	Dominant	Indicator	Dominano	re Test v	worksheet				
T 01 1 11			% Cover		Status?			ant Species				
Tree Stratum (C	Jse scientific names.	)		-				CW, or FAC				
1					<del></del>					1		(A)
2						Total Num Species A						
3					<del></del>	opedies A	CIUSS AII	i Silata.		2		(B)
4								int Species	That	===/		(A (D)
		Total Cover:				Are OBL,	FACW, c	or FAC:	-	50%		(A/B)
Shrub Stratum			_	.,	FACIL			Workshee	et:			
1. Sambucus race	emosa		5	Y	FACU	-	al % Cov	er of:	- ,	Multiply by	<u>/:</u>	-
2						OBL spec			_x1 =	0		-
3						FACW spe		100		200		-
4						FAC speci			_x3 =	6		=
5						FACU spe		5	_x4 =	20		=
		Total Cover:	5			UPL speci			_x5 =	0		- (D)
Herb Stratum			400	.,	EA (C) A /	Column To		107	_(A)	226		(B)
1. Phalaris arund			100	Y	FACW	Preva	lence ind	dex = B/A =		2.1		-
2. Cirsium arvens	e		2	N	FAC							
3						Hydropny		etation Ind				
4								ance Test is				
5						X		ence Index				
6								ological Ada				3
7								Remarks o	-			
8							Probler	matic Hydro	phytic Veg	etation (E	xplain)	)
		Total Cover:	102			1						
Woody Vine St	<u>ratum</u>						of hydri	ic soil and v	vetland hyd	irology mus	st be	
1						present.						
2						Hydrophy	/tic					
		Total Cover:				Vegetatio	n					
	re Ground in Herb S	tratum %	Cover of Bio	otic Crust	0	Present?			Yes X	No		
Remarks:												

(inches)	Color (moist)	%	Color (n	noist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
	10YR 2/2	100				-	SiL		
2-16	10YR 3/2	95	7.5YR 3/4	1	5 C	М	gravelly SiL	likely fill mater	rial
		·							
Гуре: C=Co	oncentration, D=Dep	oletion, RI	M=Reduce	d Matrix, CS=C	Covered or 0	Coated Sa	and Grains. <sup>2</sup> Loc	ation: PL=Pore Lin	ning, M=Matrix.
-	ndicators: (Applic	able to a	ıll LRRs, u		-		Indicators fo	r Problematic Hyd	
Histosol	• •			Sandy Redox				2 cm Muck (A10)	
	pipedon (A2) listic (A3)			Stripped Matri Loamy Mucky		) (oveen		Red Parent Mate Other (Explain in	
	` '			Loamy Gleyed	-			_ Other (Explain in	i Remarks)
	en Sulfide (A4) d Below Dark Surfa	00 (A11)		Depleted Matr	•	-)			
	ark Surface (A12)	ce (ATT)		-			<sup>3</sup> Indicate	rs of hydrophytic ve	acatation and
	Muck Mineral (S1)			Redox Dark S Depleted Dark		7)		nd hydrology must b	=
	gleyed Matrix (S4)			Redox Depres		1)		ss disturbed or prob	· ·
	_ayer (if present):			- Tredox Depres	3013 (1 0)		unc	33 disturbed or pro-	olematic.
/pe: epth (inches	s):		<u>=</u> _			н	ydric Soil Prese	nt? Ye	es No <u>X</u>
ype: epth (inches narks: DROLOGY						н	ydric Soil Prese	nt? Ye	es No <u>X</u>
ype: epth (inches narks:  DROLOGY /etland Hyd	drology Indicators:					н	ydric Soil Prese		
ype: epth (inches narks:  DROLOGY fetland Hyd rimary Indic	drology Indicators: ators (any one indic		ıfficient)					Secondary Indicat	tors (2 or more require
PROLOGY etland Hyd imary Indica	drology Indicators: eators (any one indic Water (A1)		ıfficient)	Water-Stained	•			Secondary Indicat Water-Stained Le	
PROLOGY etland Hydrimary Indica Surface High Wa	drology Indicators: eators (any one indic Water (A1) ater Table (A2)		ufficient)	1, 2, 4A an	d 4B)			Secondary Indicat Water-Stained Le	tors (2 or more require eaves (B9) ( <b>MLRA 1</b> ,
PROLOGY etland Hyd imary Indic Surface High Wa Saturation	drology Indicators: ators (any one indic Water (A1) ater Table (A2) ion (A3)		ıfficient)	<b>1, 2, 4A an</b> Salt Crust (B1	<b>d 4B</b> ) 1)	9) (excep		Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern	tors (2 or more require eaves (B9) ( <b>MLRA 1</b> , ns (B10)
PROLOGY etland Hyd imary Indic Surface High Wa Saturati Water M	drology Indicators: eators (any one indices: Water (A1) eater Table (A2) dion (A3)		ıfficient)	<b>1, 2, 4A an</b> Salt Crust (B1 Aquatic Inverte	<b>d 4B</b> ) 1) ebrates (B1	9) ( <b>excep</b>		Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Water	tors (2 or more require eaves (B9) ( <b>MLRA 1,</b> ns (B10) er Table (C2)
PROLOGY etland Hyd imary Indic Surface High Wa Saturati Water M Sedimer	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		ufficient)	1, 2, 4A an Salt Crust (B1 Aquatic Inverte Hydrogen Sulf	d 4B) 1) ebrates (B1 ide Odor (C	9) ( <b>excep</b> 3)	t MLRA	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible	tors (2 or more require eaves (B9) ( <b>MLRA 1</b> , ns (B10) er Table (C2) e on Aerial Imagery (0
PROLOGY etland Hydrimary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep	drology Indicators: ators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)		ıfficient)	1, 2, 4A an Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize	d 4B)  1) ebrates (B1 ide Odor (Cospheres al	9) (excep 3) 3) ong Livin	t MLRA	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos	tors (2 or more require eaves (B9) ( <b>MLRA 1</b> , ns (B10) er Table (C2) e on Aerial Imagery (C
pype: epth (inches narks:  DROLOGY fetland Hyd rimary Indica Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		ufficient)	1, 2, 4A an Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R	d 4B)  1) ebrates (B1 ide Odor (Cospheres all educed Iror	9) (excep 3) (1) ong Livin	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wate Saturation Visible Geomorphic Pos Shallow Aquitard	tors (2 or more require eaves (B9) ( <b>MLRA 1</b> , ns (B10) er Table (C2) e on Aerial Imagery (0 sition (D2)
pype: epth (inches narks:  DROLOGY /etland Hyd rimary Indic Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		ufficient)	1, 2, 4A an Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re	d 4B) 1) ebrates (B1 ide Odor (Cospheres al educed Iror eduction in	9) (excep 3) 3) ong Livin n (C4) Plowed S	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitard FAC-Neutral Tes	tors (2 or more require eaves (B9) (MLRA 1, as (B10) er Table (C2) e on Aerial Imagery (Cotition (D2) d (D3) st (D5)
pype: epth (inches narks:  DROLOGY /etland Hyd rimary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	cator is su	ufficient)	1, 2, 4A and Salt Crust (B1) Aquatic Inverted Hydrogen Sulf Oxidized Rhized Presence of Recent Iron Resourced Stunted or Street (B1)	d 4B) 1) ebrates (B1 ide Odor (Cospheres al educed Iror eduction in essed Plant	3) 3) 3) 3) ong Living (C4) Plowed S	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitand FAC-Neutral Tes Raised Ant Mour	tors (2 or more require eaves (B9) (MLRA 1, ns (B10) er Table (C2) e on Aerial Imagery (C sition (D2) d (D3) et (D5) nds (D6) (LRR A)
PROLOGY  etland Hydrimary Indicate  Saturation  Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-S Water-S	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) c Soil Cracks (B6) Stained Leaves (B9)	cator is su		1, 2, 4A an Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re	d 4B) 1) ebrates (B1 ide Odor (Cospheres al educed Iror eduction in essed Plant	3) 3) 3) 3) ong Living (C4) Plowed S	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitard FAC-Neutral Tes	tors (2 or more require eaves (B9) (MLRA 1, ns (B10) er Table (C2) e on Aerial Imagery (C sition (D2) d (D3) et (D5) nds (D6) (LRR A)
pype: epth (inches marks:  DROLOGY /etland Hyd rimary Indic Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Water-S Sparsely	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Stained Leaves (B9) y Vegetated Concar	cator is su		1, 2, 4A and Salt Crust (B1) Aquatic Inverted Hydrogen Sulf Oxidized Rhized Presence of Recent Iron Resourced Stunted or Street (B1)	d 4B) 1) ebrates (B1 ide Odor (Cospheres al educed Iror eduction in essed Plant	3) 3) 3) 3) ong Living (C4) Plowed S	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitand FAC-Neutral Tes Raised Ant Mour	tors (2 or more require eaves (B9) (MLRA 1, ns (B10) er Table (C2) e on Aerial Imagery (C sition (D2) d (D3) et (D5) nds (D6) (LRR A)
ype: lepth (inches marks:  DROLOGY /etland Hyd rimary Indica Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Water-S Sparsely ield Observ	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Stained Leaves (B9) y Vegetated Concavarations:	ve Surfac		1, 2, 4A an Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhiz Presence of R Recent Iron Re Stunted or Stra Other (Explain	d 4B) 1) ebrates (B1 ide Odor (Cospheres al educed Iror eduction in essed Plant in Remarks	3) 3) 3) 3) ong Living (C4) Plowed S	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitand FAC-Neutral Tes Raised Ant Mour	tors (2 or more require eaves (B9) (MLRA 1, ns (B10) er Table (C2) e on Aerial Imagery (C sition (D2) d (D3) et (D5) nds (D6) (LRR A)
ype: lepth (inches marks:  DROLOGY /etland Hyd rimary Indica Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Water-S Sparsely	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Stained Leaves (B9) y Vegetated Concavarations: er Present? Yes	ve Surfac		1, 2, 4A and Salt Crust (B1) Aquatic Inverted Hydrogen Sulf Oxidized Rhized Presence of Recent Iron Resourced Stunted or Street (B1)	d 4B) 1) ebrates (B1 ide Odor (Cospheres al educed Iror eduction in essed Plant in Remarks	3) 3) 3) 3) ong Living (C4) Plowed S	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitand FAC-Neutral Tes Raised Ant Mour	tors (2 or more require eaves (B9) (MLRA 1, ns (B10) er Table (C2) e on Aerial Imagery (C sition (D2) d (D3) et (D5) nds (D6) (LRR A)
DROLOGY  /etland Hydrimary Indica Surface High Wassaturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-S Sparsely ield Observ urface Water /ater table Paturation Pri	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) Stained Leaves (B9) y Vegetated Concavorations: er Present? Yes Present? Yes Present? Yes	ve Surfac	  ee (B8)	1, 2, 4A and Salt Crust (B1) Aquatic Inverted Hydrogen Sulfor Oxidized Rhize Presence of Recent Iron Resourced or Structed or Structed or Structed Other (Explain Depth (inches	d 4B) 1) ebrates (B1 ide Odor (Coppheres all educed Iron eduction in essed Plant in Remarks es): >16"	3) 3) 3) 3) ong Living (C4) Plowed S	g Roots (C3)	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitand FAC-Neutral Tes Raised Ant Mour	tors (2 or more require eaves (B9) (MLRA 1, ns (B10) er Table (C2) e on Aerial Imagery (C sition (D2) d (D3) et (D5) nds (D6) (LRR A)
pype: epth (inches marks:  DROLOGY /etland Hyd rimary Indica Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-S Sparsely ield Observ urface Water /ater table Paturation Proncludes cap	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Stained Leaves (B9) y Vegetated Concavorations: er Present? Yes Present? Yes ersent? Yes positions (A3)	ve Surfac	ee (B8)  No X No X No X No X	1, 2, 4A and Salt Crust (B1) Aquatic Inverted Hydrogen Sulf Oxidized Rhize Presence of Recent Iron Restructed or Structed or Structed or Structed Other (Explain Depth (inches Depth (in	d 4B)  1) ebrates (B1 ide Odor (Coppheres all educed Iron eduction in essed Plant in Remarks es):  >16" >16"	9) (excep 3) ong Living n (C4) Plowed S s (D1) (L s)	g Roots (C3) oils (C6) RR A) Wetland Hydr	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hur	tors (2 or more require eaves (B9) (MLRA 1, as (B10) er Table (C2) e on Aerial Imagery (Continuo (D2) d (D3) et (D5) ands (D6) (LRR A) ammocks (D7)
pype: epth (inches marks:  DROLOGY /etland Hyd rimary Indica Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Water-S Sparsely ield Observ urface Water /ater table Paturation Proncludes cap	drology Indicators: eators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) Stained Leaves (B9) y Vegetated Concavorations: er Present? Yes Present? Yes Present? Yes	ve Surfac	ee (B8)  No X No X No X No X	1, 2, 4A and Salt Crust (B1) Aquatic Inverted Hydrogen Sulf Oxidized Rhize Presence of Recent Iron Restructed or Structed or Structed or Structed Other (Explain Depth (inches Depth (in	d 4B)  1) ebrates (B1 ide Odor (Coppheres all educed Iron eduction in essed Plant in Remarks es):  >16" >16"	9) (excep 3) ong Living n (C4) Plowed S s (D1) (L s)	g Roots (C3) oils (C6) RR A) Wetland Hydr	Secondary Indicat Water-Stained Le 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visible Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hur	tors (2 or more require eaves (B9) (MLRA 1, as (B10) er Table (C2) e on Aerial Imagery (Continuo (D2) d (D3) et (D5) ands (D6) (LRR A) ammocks (D7)

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County	: Tillamook			Sampling D	Date:	8/22/2014
•	Tillamook County			, ,			State: OR		Point: P-16	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop		diked floodplain		_		-	, none): flat		Slope (%):	0-1%
` .	Columbia Plateau (				,		Long:			: NAD27
Soil Map Unit Nar		uille silt loam, diked	_				NWI Classification:		-	
•	rologic conditions on			/ear?	Yes			(If no, explain	in Remarks	)
Are Vegetation	, Soil				·-		ormal Circumstances	_		
Are Vegetation		, or Hydrology					ed, explain any answ			
, as regulation	,			riatarany pr		(	ou, onpium uny unon		,	
SUMMARY O	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant features	s, etc.	
	=									
Hydrophytic Vege		Yes X No		Is the S	ampled Area	1				
Hydric Soil Prese		Yes X No			a Wetland?		Yes X	No		
Wetland Hydrolog		Yes X No	-							
Plot located in ag	ricultural field, approx	kimately 40 feet no	rth of old bu	ilding.				,		
VEGETATION										
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet:			
L "			% Cover		Status?		f Dominant Species			
Tree Stratum (U	Jse scientific names.)	)					DBL, FACW, or FAC			
1					<del></del>			<u> </u>	1	_(A)
2					<del></del>		ber of Dominant cross All Strata:		_	
3					<del></del>	Opecies A	CIOSS All Strata.		1	_(B)
4				-			Dominant Species			(A (B)
		Total Cover:				Are OBL,	FACW, or FAC:	1	100%	_(A/B)
Shrub Stratum						Provalono	ce Index Workshee	4.		
1							al % Cover of:		Itiply by:	
2			-	-		OBL spec		x1 =	0	-
3		<del>-</del>				FACW spec		x2 =	0	-
4						FAC spec	-	x3 =	0	=
5						FACU spe		x4 =	0	_
o		Total Cover:				UPL speci		x5 =	0	-
Herb Stratum		Total Gover.				Column To		(A)	0	(B)
Phalaris arund	inacea		100	Υ	FACW		lence Index = B/A =	- ' '		_(5)
2.										_
3.						Hydrophy	tic Vegetation Indi	cators:		
4.		_				X	Dominance Test is			
5.		_					Prevalence Index is			
6.							Morphological Ada		de cunnortin	ıa
7.							data in Remarks or			g
8.							Problematic Hydro	•		1)
		Total Cover:	100		-		, ,	, 0	` '	,
Woody Vine St	ratum					1Indicators	s of hydric soil and w	etland hydrolo	ay must be	
1.						present.	, , , , , , , , ,	,,,,,,	3,	
2.						Uvdranh	rtio.			
		Total Cover:	100			Hydrophy Vegetatio				
% Ba	re Ground in Herb St		Cover of Bi	otic Crust	0	Present?	••	Yes X	No	
	ated just outside mov									
	,	<b>5</b>								

				_ 1	. 2	_				
nches) Color (mois		Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u> </u>		Remark	S
10YR 3/3	100					SiL				
-16 2.5Y 3/2		7.5YR 3/4	40	С	M	SiL		some grav	els, iron piece	es
							<u> </u>			
ype: C=Concentration, D	D=Depletion, R	M=Reduced Matri	x, CS=Cov	ered or C	Coated Sa	nd Grains. <sup>2</sup> l	ocatio	n: PL=Pore	Lining, M=Ma	atrix.
ydric Soil Indicators: (A	Applicable to a			-		Indicators			Hydric Soils <sup>3</sup> :	
Histosol (A1)			Redox (S	•					A10) ( <b>LRR B</b> )	
Histic Epipedon (A2)			ed Matrix (						Material (TF2)	
Black Histic (A3)	`		Mucky Mi			MLRA 1)	(	other (Explai	in in Remarks	)
Hydrogen Sulfide (A4			Gleyed M		)					
Depleted Below Dark Thick Dark Surface (A			ed Matrix ( Dark Surfa			<sup>3</sup> India	atore o	f hydronhyti	c vegetation a	and
Sandy Muck Mineral (	-		ed Dark Sun	, ,	7)				ist be present	
Sandy gleyed Matrix (	•		Depression		' )				problematic.	
	•	110007	Воргосок	(1 0)			111000		problematic.	
estrictive Laver (it brese										
	,									
ype: epth (inches):		ors were ignored i	n recordinç	g data.	Ну	rdric Soil Pre	esent?		Yes X	_ No
ype: epth (inches): narks: Iron pieces have le	ached and col	ors were ignored i	n recordinç	g data.	Ну	rdric Soil Pre	esent?		Yes X	No
pype: epth (inches): narks: Iron pieces have le  DROLOGY /etland Hydrology Indica	ached and col		n recordinç	g data.	Ну	rdric Soil Pre		econdary Ind		
ppe: epth (inches): narks: Iron pieces have le process have le process have le	ached and col	ufficient)	n recordino				Se		Yes X	nore require
ppe: epth (inches):  parks: Iron pieces have le  proces  proce	ached and col	ufficient) Water		eaves (B9			Se		licators (2 or r	nore require
ppe: epth (inches):  parks: Iron pieces have le  proposed by the proposed by t	ached and col	ufficient) Water 1, 2	Stained Le	eaves (B9			SeeV	Vater-Staine	licators (2 or r	nore require
ppe: epth (inches):  parks: Iron pieces have le  proposed by the proposed by t	ached and col	ufficient) Water1, 2	Stained Le	eaves (B9	(except		SeV	Vater-Staine  4A and 4I  Orainage Pat  Ory-Season \	licators (2 or r d Leaves (B9 B) tterns (B10) Water Table (	nore require ) (MLRA 1, 2
ppe: epth (inches):  parks: Iron pieces have le  proposed by the proposed by t	ators:	ufficient) Water 1, 3 Salt C Aquati Hydro	Stained Le 2, <b>4A and 4</b> rust (B11) c Invertebr gen Sulfide	eaves (B9 4 <b>B</b> ) rates (B13 e Odor (C	9) (except 3)	MLRA .	Se	Vater-Staine  4A and 4I  Orainage Pat  Ory-Season Vistaturation Vis	licators (2 or r d Leaves (B9 B) tterns (B10) Water Table (4 sible on Aeria	nore require ) (MLRA 1, 2
ppe: epth (inches):  parks: Iron pieces have le  proposition by the proposition of the period of the proposition (inches):  proposition pieces have le  proposition pieces	ators: e indicator is su )	ufficient)  Water 1, 2 Salt C Aquati Hydro Oxidiz	Stained Le 2, <b>4A and 4</b> rust (B11) c Invertebr gen Sulfide ed Rhizosp	eaves (B9 4B) rates (B13 e Odor (Coheres ald	9) (except 3) 1) ong Living		SeV	Vater-Staine  4A and 4I  Orainage Pat  Ory-Season Vistaturation Vista	licators (2 or r d Leaves (B9 B) tterns (B10) Water Table (0 sible on Aeria Position (D2)	nore require ) (MLRA 1, 2
ppe: epth (inches):  parks: Iron pieces have le  proposition of the pr	ators: e indicator is su )	ufficient)  Water 1, 2 Salt C Aquati Hydro Oxidiz Prese	Stained Legand 4 2, 4A and 4 rust (B11) c Invertebrigen Sulfide ed Rhizospace of Red	eaves (B9 4B) rates (B13 e Odor (C oheres alo uced Iron	(C4)	MLRA .	SeV	Vater-Staine  4A and 4I  Orainage Pat  Ory-Season V  Saturation Vis  Geomorphic  Shallow Aqui	dicators (2 or r d Leaves (B9 B) tterns (B10) Water Table (6 sible on Aeria Position (D2) tard (D3)	nore require ) (MLRA 1, 2
ppe: epth (inches):  parks: Iron pieces have le  proposition of the pr	ators: e indicator is se	ufficient)  Water 1, 3 Salt C Aquati Hydro Oxidiz Prese	Stained Le 2, <b>4A and 4</b> rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Redu	eaves (B9 4B) rates (B13 e Odor (C oheres alo uced Iron uction in F	3) 1) ong Living (C4) Plowed So	Roots (C3)	Se   W	Vater-Staine  4A and 4I  Orainage Pate  Ory-Season Victorial  Geomorphic  Shallow Aquifactorial	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (0 sible on Aeria Position (D2) tard (D3) Test (D5)	nore required ) ( <b>MLRA 1, 2</b> C2) I Imagery (C
ppe: epth (inches):  narks: Iron pieces have le  proposition in the proposition (inches):  proposition in the prop	ators: e indicator is so  2)	ufficient)  Water 1, 2 Salt C Aquati Hydro Oxidiz Prese Recer Stunte	Stained Le 2, 4A and 4 rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress	eaves (B9  ates (B13  Odor (Coberes alouced Iron  uction in Fired Plants	3) 1) png Living (C4) Plowed Sos (D1) (LF	Roots (C3)	Se V C C C C S S X F F F F F	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Challow Aquita CAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Gotor Control Contr	nore require ) (MLRA 1, 2 C2) I Imagery (C
pe: epth (inches):  parks: Iron pieces have le  parks: Iro	ators: e indicator is su  (2) (4) (86) (89)	ufficient)  Water 1, 2 Salt C Aquati Hydro Oxidiz Prese Recer Stunte	Stained Le 2, <b>4A and 4</b> rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Redu	eaves (B9  ates (B13  Odor (Coberes alouced Iron  uction in Fired Plants	3) 1) png Living (C4) Plowed Sos (D1) (LF	Roots (C3)	Se V C C C C S S X F F F F F	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Challow Aquita CAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (0 sible on Aeria Position (D2) tard (D3) Test (D5)	nore require ) (MLRA 1, 2 C2) I Imagery (C
proper per per per per per per per per per	ators: e indicator is su  (2) (4) (86) (89)	ufficient)  Water 1, 2 Salt C Aquati Hydro Oxidiz Prese Recer Stunte	Stained Le 2, 4A and 4 rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress	eaves (B9  ates (B13  Odor (Coberes alouced Iron  uction in Fired Plants	3) 1) png Living (C4) Plowed Sos (D1) (LF	Roots (C3)	Se V C C C C S S X F F F F F	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Challow Aquita CAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Gotor Control Contr	nore require ) (MLRA 1, 2 C2) I Imagery (C
proper property in the property is a parsely vegetated Colors in the	ators: e indicator is su  (2) (4) (86) (89)	ufficient)  Water 1, 2 Salt C Aquati Hydro Oxidiz Prese Recer Stunte Other	Stained Le 2, 4A and 4 rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress	eaves (B9  ates (B13  e Odor (Cobheres alouced Iron action in Fired Plants Remarks	3) 1) png Living (C4) Plowed Sos (D1) (LF	Roots (C3)	Se V C C C C S S X F F F F F	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Challow Aquita CAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Gotor Control Contr	nore required ) (MLRA 1, 2 C2) I Imagery (C
High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Water-Stained Leaves Sparsely Vegetated Coileld Observations: Furface Water Present?	ached and col ached and col ators: e indicator is si  1)  2)  4)  86) s (B9) concave Surface Yes Yes	### Water  1, 2  Salt C  Aquati  Hydro  Oxidiz  Prese  Recer  Stunte  Other  be (B8)  No X  Dep  No X  Dep	Stained Le 2, 4A and 4 rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress (Explain in	eaves (B9  4B)  rates (B13  e Odor (Cobheres alouced Iron fuction in Faced Plants Remarks  : >16"	3) 1) png Living (C4) Plowed Sos (D1) (LF	MLRA  Roots (C3)  Dils (C6)  RRA)	Se V C C S S S S F F F	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Vistaturation Vistaturation Aquita AC-Neutral Raised Ant Marost-Heave	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Good of the content of	nore required ) (MLRA 1, 2 C2) I Imagery (C4 LRR A)
proper property of the propert	ached and col ached and col ators: e indicator is si  2) 4) 86) s (B9) concave Surfac	### Water  1, 2  Salt C  Aquati  Hydro  Oxidiz  Prese  Recer  Stunte  Other  be (B8)  No X  Dep  No X  Dep	Stained Le 2, 4A and 4 rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress (Explain in	eaves (B9  4B)  rates (B13  e Odor (Cobheres alouced Iron fuction in Faced Plants Remarks  : >16"	3) 1) png Living (C4) Plowed Sos (D1) (LF	Roots (C3)	Se V C C S S S S F F F	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Vistaturation Vistaturation Aquita AC-Neutral Raised Ant Marost-Heave	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Good of the content of	nore required ) (MLRA 1, 2 C2) I Imagery (C
proper peth (inches):	ached and col ached and col ached and col ators: e indicator is si  2)  4)  86) s (B9) concave Surfact Yes Yes Yes Yes Yes	Water	Stained Leader, 4A and 4 rust (B11) or Invertebrate of Red to Iron Reduction of Reduction of Stress (Explain in the (inches) the (inches) of t	eaves (B9  ates (B13  Odor (Coberes alouced Iron action in Fised Plants Remarks  : >16" : >16"	3) 1) 2) (except 3) 1) 2) ong Living 1 (C4) 2) lowed So 25 (D1) (LF 36)	MLRA  Roots (C3)  Dils (C6)  RR A)  Wetland Hy	Se   V   C   C   C   C   C   C   C   C   C	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Vistaturation Vistaturation Aquita AC-Neutral Raised Ant Marost-Heave	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Good of the content of	nore required (MLRA 1, 2 C2) I Imagery (C
proper property of the propert	ached and col ached and col ached and col ators: e indicator is si  2)  4)  86) s (B9) concave Surfact Yes Yes Yes Yes Yes	Water	Stained Leader, 4A and 4 rust (B11) or Invertebrate of Red to Iron Reduction of Reduction of Stress (Explain in the (inches) the (inches) of t	eaves (B9  ates (B13  Odor (Coberes alouced Iron action in Fised Plants Remarks  : >16" : >16"	3) 1) 2) (except 3) 1) 2) ong Living 1 (C4) 2) lowed So 25 (D1) (LF 36)	MLRA  Roots (C3)  Dils (C6)  RR A)  Wetland Hy	Se   V   C   C   C   C   C   C   C   C   C	Vater-Staine  4A and 4I  Orainage Pate Ory-Season Vistaturation Vistaturation Vistaturation Vistaturation Aquita AC-Neutral Raised Ant Marost-Heave	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Good of the content of	nore required ) (MLRA 1, 2 C2) I Imagery (C

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook			Sampling I	Date:	8/22/2014
•	Tillamook County			, ,			State: OR		Point: P-17	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop		diked floodplain		_		-	, none): flat		Slope (%):	0-1%
` .	Columbia Plateau (I			_	`		Long:			NAD27
Soil Map Unit Nar		uille silt loam, diked	_				NWI Classification:		_	
•	rologic conditions on			/ear?	Yes			(If no, explain	n in Remarks	)
Are Vegetation	, Soil				_		ormal Circumstance	='		
Are Vegetation		, or Hydrology					ed, explain any ansv			
, as regulation	,	,,		aca.ay p.		(	ou, explain any aner		,	
SUMMARY O	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant feature	s, etc.	
		<del>-</del>		1						
Hydrophytic Vege		Yes X No		Is the S	ampled Area	,				
Hydric Soil Prese			<u>X</u>		a Wetland?	-	Yes	No X		
Wetland Hydrolog	y Present?	Yes No	<u> X</u>							
Plot located appro	oximately 10 feet sou	th of P-16 on slope	up to old b	uilding found	lation.					
VEGETATION										
VEGETATION										
			Absolute	Dominant	Indicator	Dominano	ce Test worksheet:			
Tree Stratum (L	Jse scientific names.)	)	% Cover	Species?	Status?	Number of	f Dominant Species			
1.	,					That Are 0	DBL, FACW, or FAC	:	1	(A)
2.		-				Total Num	ber of Dominant	-		_ ` '
3.		-					cross All Strata:		1	(B)
4.		-				Porcent of	Dominant Species	That		_ ` '
		Total Cover:	<del></del>				FACW, or FAC:		100%	(A/B)
			-			,				_( /
Shrub Stratum						Prevalenc	e Index Workshee	t:		
1.						Tota	al % Cover of:	Mu	ıltiply by:	
2.						OBL spec	ies	x1 =	0	-
3.						FACW spe		x2 =	0	-
4.						FAC spec		x3 =	0	-
5.						FACU spe		x4 =	0	-
		Total Cover:				UPL speci	ies	x5 =	0	-
Herb Stratum						Column To	otals: 0	(A)	0	(B)
1. Phalaris arund	inacea		100	Υ	FACW	Preva	lence Index = B/A =	#DI	V/0!	
2.										-
3.						Hydrophy	tic Vegetation Indi	cators:		
4.						Х	Dominance Test is	>50%		
5.						#DIV/0!	Prevalence Index i	s ≤3.0 <sup>1</sup>		
6.							Morphological Ada	ntation <sup>1</sup> (Prov	ide supportin	α
7.							data in Remarks or			9
8.							Problematic Hydro	phytic Vegeta	tion <sup>1</sup> (Explain	1)
		Total Cover:	100							
Woody Vine St	<u>ratum</u>					<sup>1</sup> Indicators	s of hydric soil and w	etland hydrolo	ogy must be	
1						present.				
2.						Hydrophy	wtic			
		Total Cover:	100	-		Vegetatio				
% Ba	re Ground in Herb St	ratum %	Cover of Bi	otic Crust	0	Present?		Yes X	No	
Remarks:						1				
. tomaino.										

Depth Mat	irix	Re	dox Featu	ıres			
(inches) Color (mois	st) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16 10YR 3/3	100					gravelly SiL	Looks like fill material
							<u> </u>
							<u> </u>
						-	· -
							· -
<sup>1</sup> Type: C=Concentration, D	D=Depletion, RN		, CS=Cov	ered or Coa	ted Sar	nd Grains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (A	Applicable to a	II LRRs, unless o	therwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)			Redox (S5	-			2 cm Muck (A10) ( <b>LRR B</b> )
Histic Epipedon (A2)			d Matrix (S				Red Parent Material (TF2)
Black Histic (A3)		Loamy	Mucky Mir	neral (F1) (	except	MLRA 1)	Other (Explain in Remarks)
Hydrogen Sulfide (A4)	)	Loamy	Gleyed Ma	atrix (F2)			
Depleted Below Dark	Surface (A11)	Deplete	d Matrix (	F3)			
Thick Dark Surface (A	<b>\12</b> )	Redox [	Dark Surfa	ace (F6)		<sup>3</sup> Indicato	rs of hydrophytic vegetation and
Sandy Muck Mineral (	S1)	Deplete	d Dark Su	urface (F7)		wetlan	d hydrology must be present,
Sandy gleyed Matrix (	S4)	Redox [	Depressio	ns (F8)		unles	ss disturbed or problematic.
Restrictive Layer (if prese	ent):						
, , ,							
Type:							
Type: Depth (inches):		<u></u>			Ну	dric Soil Prese	nt? Yes No <u>X</u>
Type:		<u> </u>			Ну	dric Soil Presei	nt? Yes No <u>X</u>
Type: Depth (inches):					Ну	dric Soil Presei	nt? Yes No <u>X</u>
Type: Depth (inches): emarks:					Ну	dric Soil Presei	nt? Yes No <u>X</u>
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indica		Finiont)			Ну	dric Soil Prese	
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indica Primary Indicators (any one			Stained Le	payes (BQ) (			Secondary Indicators (2 or more required
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indicators (any one Surface Water (A1)	e indicator is su	Water-S		eaves (B9) (			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2)	e indicator is su	Water-S 1, 2,	4A and 4				Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B)
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3)	e indicator is su	Water-S <b>1, 2,</b> Salt Cru	<b>4A and 4</b> ust (B11)	IB)			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10)
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic	<b>4A and 4</b> ust (B11) Invertebra	<b>IB</b> ) ates (B13)			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydroge	<b>4A and 4</b> ust (B11) Invertebra en Sulfide	ates (B13) Odor (C1)	except	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
Type: Depth (inches): emarks:  YDROLOGY  Wetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidizer	<b>4A and 4</b> ust (B11) Invertebraten Sulfide d Rhizosp	ates (B13) Odor (C1) oheres along	except g Living		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B4) Drift Deposits (B3) Algal Mat or Crust (B4)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidizer	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu	ates (B13) Odor (C1) Oheres alonguced Iron (C	except g Living	MLRA	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
Type: Depth (inches): emarks:  YDROLOGY Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	e indicator is su	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presenc	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu	ates (B13) Odor (C1) Oheres along uced Iron (Cuction in Plo	except g Living (4) wed So	MLRA Roots (C3) iils (C6) X	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B	e indicator is su  2)  32)  4)  B6)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidizer Presenc Recent Stunted	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu Iron Redu or Stress	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Placed Plants (	except g Living (4) wed So	MLRA Roots (C3) iils (C6) X	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B4) Water-Stained Leaves	e indicator is su  2)  32)  4)  B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presenc Recent Stunted Other (E	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu Iron Redu or Stress	ates (B13) Odor (C1) Oheres along uced Iron (Cuction in Plo	except g Living (4) wed So	MLRA Roots (C3) iils (C6) X	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (E4) Water-Stained Leaves Sparsely Vegetated C	e indicator is su  2)  32)  4)  B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidize Presenc Recent Stunted Other (E	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu Iron Redu or Stress	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Placed Plants (	except g Living (4) wed So	MLRA Roots (C3) iils (C6) X	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B4) Water-Stained Leaves	e indicator is su  2)  32)  4)  B6) s (B9)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidizee Presenc Recent Stunted Other (E	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu Iron Redu or Stress	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Placed Plants (Remarks)	except g Living (4) wed So	MLRA Roots (C3) iils (C6) X	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B4 Water-Stained Leaves Sparsely Vegetated C6  Field Observations: Surface Water Present? Water table Present?	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface Yes Yes	Water-S	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu Iron Redu or Stress Explain in in (inches):	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Placed Plants (Remarks)	except g Living (4) wed So	MLRA  Roots (C3)  iils (C6)  R A)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (EWater-Stained Leaves Sparsely Vegetated Cofficient (A) Field Observations: Surface Water Present? Water table Present? Saturation Present?	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface Yes	Water-S	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu Iron Redu or Stress Explain in	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Placed Plants (Remarks)	except g Living (4) wed So	MLRA  Roots (C3)  iils (C6)  R A)	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B4 Water-Stained Leaves Sparsely Vegetated C7  Field Observations: Surface Water Present? Water table Present? Saturation Present? (includes capillary fringe)	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface  Yes Yes Yes Yes Yes	Water-S	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu or Stress Explain in in (inches): in (inches):	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Ploted Plants (Remarks)	except g Living (4) wed So (21) (LR	MLRA  Roots (C3)  iils (C6)  R A)  Wetland Hydro	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (EWater-Stained Leaves Sparsely Vegetated Cofficient (A) Field Observations: Surface Water Present? Water table Present? Saturation Present?	e indicator is su  2)  32)  4)  B6) s (B9) Concave Surface  Yes Yes Yes Yes Yes	Water-S	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu or Stress Explain in in (inches): in (inches):	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Ploted Plants (Remarks)	except g Living (4) wed So (21) (LR	MLRA  Roots (C3)  iils (C6)  R A)  Wetland Hydro	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Type: Depth (inches): emarks:   YDROLOGY  Wetland Hydrology Indicators (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (B4 Water-Stained Leaves Sparsely Vegetated C7  Field Observations: Surface Water Present? Water table Present? Saturation Present? (includes capillary fringe)	e indicator is su  2)  32)  4)  B6)  S (B9)  Concave Surface  Yes Yes Yes Yes Yes Yes And The surface  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	Water-S	4A and 4 ust (B11) Invertebra en Sulfide d Rhizosp de of Redu or Stress Explain in in (inches): in (inches):	ates (B13) Odor (C1) Oheres alonguced Iron (Cuction in Ploted Plants (Remarks)	except g Living (4) wed So (21) (LR	MLRA  Roots (C3)  iils (C6)  R A)  Wetland Hydro	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	: Tillamook			Sampling	Date:	8/22/2014
•	Tillamook County			. , ,			State: OR		Point: P-18	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop		diked floodplain		_			, none): flat		Slope (%):	0-1%
` .	Columbia Plateau (				,		Long:			n: NAD27
Soil Map Unit Nar		uille silt loam, diked	_				NWI Classification:		_	
•	rologic conditions on			vear?	Yes		No		ain in Remarks	3)
Are Vegetation	, Soil				·-		ormal Circumstance	_		
Are Vegetation		, or Hydrology					ed, explain any ansv			
, ao vogotation	, con			riatarany pr	obiomatio.	(ii nood	oa, oxpiam any anot	voro in reome		
SUMMARY O	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, import	ant featur	es, etc.	
Hydrophytic Vege	tation Present?	Yes X No	<u> </u>							
Hydric Soil Prese			Х	Is the S	ampled Area	1	Yes	No X		
Wetland Hydrolog			X X	within	a Wetland?			_ <del>                                     </del>	<del></del>	
	ge of N-S road, south		•							
	<b>9</b>									
VEGETATION										
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet	:		
Tree Stratum (L	Jse scientific names.)	)	% Cover	Species?	Status?		f Dominant Species			
1.					- ·	That Are (	OBL, FACW, or FAC	<b>;</b>	1	(A)
2.						Total Num	ber of Dominant			_
3.						Species A	cross All Strata:		1	(B)
4						Percent of	f Dominant Species	That		
		Total Cover:	:				FACW, or FAC:		100%	_(A/B)
Shrub Stratum						Prevalence	ce Index Workshee	t:		
1						-	al % Cover of:	N	fultiply by:	_
2						OBL spec	ies	_x1 =	0	_
3						FACW spe		_x2 =	0	
4						FAC spec		_x3 =	0	_
5						FACU spe		_x4 =	0	_
		Total Cover:	·			UPL speci		_x5 =	0	<b>-</b>
Herb Stratum					E4.0	Column To		_(A)	0	(B)
1. Lolium perenne			80	<u>Y</u>	FAC	Preva	lence Index = B/A =	#L	DIV/0!	_
2. Agrostis capilla			10	N	FAC					
3. Festuca arundi	nacea		5	N	FAC		tic Vegetation Ind			
4						X	Dominance Test is			
_						#DIV/0!	Prevalence Index			
6. 7.							Morphological Adadata in Remarks o			ng
8.								•		m)
o		Total Cover					Problematic Hydro	priytic veget	ation (Explair	11)
Woody Vino St	ratum	Total Cover	95			<sup>1</sup> Indicators	af budeia aail aad u	بملامه ما المراجع	alagur marrat ha	
Woody Vine St						present.	s of hydric soil and v	vetiana nyara	nogy must be	<i>!</i>
2.				· <del></del>		•				
<u> </u>		Total Cover	95	-		Hydrophy				
0/. Do	re Ground in Herb St		Cover of Bi		0	Vegetatio Present?	on	Yes X	No	
	ire Ground in Hein Si	atum%	OOVEI OI BI	ouc oruși		riesellt?		169		
Remarks:										

nches) Color (m	noist) %	6 Col	or (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		R	lemarks	
-8 10YR 2/2		00					gravelly SiL	grav	els, large cob		alt chunk
					<u> </u>						
ype: C=Concentration	n, D=Depletion	n, RM=Red	luced Matrix	c, CS=Cov	vered or C	oated Sar	nd Grains. <sup>2</sup> Lo	cation: PL	=Pore Lining	, M=Matrix	
ydric Soil Indicators:	(Applicable	to all LRR					Indicators f		-		
Histosol (A1)	2)	_		Redox (S	•		_		uck (A10) ( <b>L</b> l	•	
Histic Epipedon (A:	2)	_		d Matrix (	-				rent Material	,	
Black Histic (A3)		_		-	lineral (F1)		MLRA 1) _	Other (I	Explain in Re	emarks)	
_ Hydrogen Sulfide (	•	_		-	//atrix (F2)						
Depleted Below Da	•			ed Matrix			31	6 la		tation and	
_ Thick Dark Surface		_		Dark Surf				=	phytic veget		
_ Sandy Muck Miner		_			Surface (F7	)		-	gy must be p		
_ Sandy gleyed Matr		_	Redox	Depression	ons (F8)		un	ess disturbe	ed or problen	natic.	
estrictive Layer (if pro	•										
	والماكل ماكا والمراجع المرا										
	id asphait chu	INKS				ш.,	dria Sail Bras	ont?	Voc		No Y
epth (inches): 8"	id asphait chu	INKS				Ну	dric Soil Pres	ent?	Yes_		No X
epth (inches): 8" narks: Road fill  DROLOGY		INKS				Ну	dric Soil Pres	ent?	Yes_		No X
epth (inches): 8"  narks: Road fill  DROLOGY  etland Hydrology Ind	licators:		2)			Ну	dric Soil Pres			(2 or more	
epth (inches): 8"  narks: Road fill  PROLOGY  etland Hydrology Indicators (any of	licators:			Stained L	eaves (B9			Seconda	ry Indicators		require
epth (inches): 8"  narks: Road fill  PROLOGY  etland Hydrology Indicators (any of Surface Water (A1)	licators:		Water-		eaves (B9			Seconda Water-S	ry Indicators Stained Leave		require
epth (inches): 8"  PROLOGY  etland Hydrology Indicators (any of Surface Water (A1)  High Water Table (	licators:		Water-	, 4A and	4B)			Seconda Water-S	ry Indicators Stained Leave	es (B9) ( <b>M</b> l	require
epth (inches): 8"  arks: Road fill  PROLOGY  etland Hydrology Indicators (any of the control of	licators:		Water- 1, 2 Salt Cr	, <b>4A and</b> ust (B11)	4B)	) (except		Seconda Water-S 4A a Drainag	ry Indicators Stained Leave Ind 4B) se Patterns (E	es (B9) ( <b>M</b> B10)	require
epth (inches): 8"  PROLOGY  etland Hydrology Indicators (any of the second state of th	licators: one indicator i ) A2)		Water- 1, 2  Salt Cr  Aquation	, <b>4A and</b> ust (B11) c Inverteb	<b>4B</b> ) rates (B13	) (except		Seconda Water-S 4A a Drainag Dry-Sea	ry Indicators Stained Leave and 4B) he Patterns (Bason Water T	es (B9) ( <b>M</b> l 310) 「able (C2)	require
PROLOGY  etland Hydrology Indicators (any of Surface Water (A1)  High Water Table ( Saturation (A3)  Water Marks (B1)  Sediment Deposits	licators: one indicator i ) A2)		Water-  1, 2  Salt Cr  Aquation  Hydrog	, <b>4A and</b> ust (B11) c Invertebren Sulfide	<b>4B</b> ) rates (B13 e Odor (C1	) (except	MLRA _	Seconda Water-S 4A a Drainag Dry-Sea Saturat	ry Indicators Stained Leave Ind 4B) The Patterns (Indicated the Patterns (Indi	es (B9) ( <b>M</b> l B10) Fable (C2) n Aerial Ima	require
epth (inches): 8"  PROLOGY  etland Hydrology Indicators (any of the control of th	licators: one indicator i ) A2) (B2)		Water-  1, 2  Salt Cr  Aquation  Hydrog  Oxidize	, <b>4A</b> and aust (B11) c Invertebour Sulfider Rhizos	<b>4B</b> ) rates (B13 e Odor (C1 pheres alo	) (except		Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo	ry Indicators Stained Leave Ind 4B) The Patterns (Eason Water Ton Visible or	es (B9) ( <b>M</b> l B10) Fable (C2) In Aerial Ima In (D2)	require
epth (inches): 8"  PROLOGY  etland Hydrology Indicators (any of the second state of th	licators: one indicator i ) A2) (B2)		Water-  1, 2  Salt Cr  Aquation  Hydrog  Oxidize  Presen	, <b>4A</b> and aust (B11) c Invertebren Sulfide ed Rhizos ce of Red	arates (B13 e Odor (C1 pheres alo	) (except s) 1) ong Living (C4)	MLRA	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow	ry Indicators Stained Leave and 4B) He Patterns (Beason Water Toon Visible or Triphic Position Aquitard (Di	es (B9) ( <b>M</b> l B10) Fable (C2) In Aerial Ima In (D2) 3)	require
PROLOGY  Tetland Hydrology Indicators (any of the second o	licators: one indicator i ) A2) (B2)		Water-  1, 2  Salt Cr  Aquation  Hydrog  Oxidize  Present  Recent	, 4A and ust (B11) c Inverteble en Sulfide ed Rhizos ce of Red	<b>4B</b> ) rates (B13 e Odor (C1 pheres alo	(C4)	MLRA Roots (C3) ills (C6)	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne	ry Indicators Stained Leave Ind 4B) The Patterns (Eason Water Ton Visible or	es (B9) (Mil B10) Fable (C2) n Aerial Ima n (D2) 3)	required LRA 1, 2
epth (inches): 8"  PROLOGY  etland Hydrology Indicators (any of the control of th	licators: one indicator ) A2) (B2) (B4) s (B6)		Water-  1, 2  Salt Cr  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted	, 4A and ust (B11) c Invertebren Sulfider ed Rhizos ce of Red to r Stress	rates (B13 e Odor (C1 pheres alo duced Iron luction in P sed Plants	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA Roots (C3) ills (C6)	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne	ry Indicators Stained Leave and 4B) The Patterns (It The Passon Water The Thic Position The Aquitard (Dieutral Test (Dieutral	es (B9) (Mi B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR	require LRA 1, 2
epth (inches): 8"  PROLOGY  etland Hydrology Indicators (any of the second state of th	licators: one indicator i ) A2) (B2) (B4) s (B6) ves (B9)	s sufficient	Water-  1, 2  Salt Cr  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted	, 4A and ust (B11) c Invertebren Sulfider ed Rhizos ce of Red to r Stress	rates (B13 e Odor (C1 pheres alo duced Iron luction in P	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA Roots (C3) ills (C6)	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne	ry Indicators Stained Leave Ind 4B) The Patterns (Exason Water Toon Visible or The Position Position The Aquitard (Disputral Test (Disputra Test	es (B9) (Mi B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR	require LRA 1, 2
epth (inches): 8"  PROLOGY  Setland Hydrology Indicators (any of the control of t	licators: one indicator i ) A2) (B2) (B4) s (B6) ves (B9)	s sufficient	Water-  1, 2  Salt Cr  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted	, 4A and ust (B11) c Invertebren Sulfider ed Rhizos ce of Red to r Stress	rates (B13 e Odor (C1 pheres alo duced Iron luction in P sed Plants	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA Roots (C3) ills (C6)	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne	ry Indicators Stained Leave Ind 4B) The Patterns (Exason Water Toon Visible or The Position Position The Aquitard (Disputral Test (Disputra Test	es (B9) (Mi B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR	required LRA 1, 2
principle (inches): 8"  Paraks: Road fill  Paraks: Road Haden (A1)  Paraks: Road Haden (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust  Iron Deposits (B5)  Surface Soil Crack:  Water-Stained Lea  Sparsely Vegetated  Paraks: Road fill  Paraks	licators: one indicator i ) A2) (B2) (B4) s (B6) ves (B9) d Concave Su	s sufficient	Water-  1, 2  Salt Cr  Aquation Hydrog Oxidize Presen Recent Stunted Other (	, 4A and ust (B11) c Invertebren Sulfider ed Rhizos ce of Red dror Stress Explain in	rates (B13) e Odor (C1) pheres alo duced Iron luction in P sed Plants n Remarks	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA Roots (C3) ills (C6)	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne	ry Indicators Stained Leave Ind 4B) The Patterns (Exason Water Toon Visible or The Position Position The Aquitard (Disputral Test (Disputra Test	es (B9) (Mi B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR	required LRA 1, 2
High Water Table ( Saturation (A3)  Water Marks (B1)  Sediment Deposits  Drift Deposits (B3)  Algal Mat or Crust  Iron Deposits (B5)  Surface Soil Crack  Water-Stained Lea  Sparsely Vegetated  ield Observations:  urface Water Present?  //ater table Present?	licators: one indicator i ) A2) (B2) (B4) s (B6) ves (B9) d Concave Su Yes Yes	s sufficient	Water-  1, 2  Salt Cr  Aquation Hydrog Oxidize Presen Recent Stunted Other (	, 4A and ust (B11) c Invertebre Sulfide ed Rhizos ce of Red dor Stress Explain in the (inches)	rates (B13 e Odor (C1 pheres alo duced Iron luction in P sed Plants in Remarks  ):	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne Raised Frost-H	ry Indicators Stained Leave Ind 4B) The Patterns (Exactle on Visible or Triphic Position Tr	es (B9) (Mil B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR pocks (D7)	required LRA 1, 2 agery (C
PROLOGY  Vetland Hydrology Indicators (any of the second o	licators: one indicator i ) A2) (B2) (B4) s (B6) ves (B9) d Concave Su Yes Yes Yes Yes Yes	s sufficient	Water-  1, 2  Salt Cr  Aquation Hydrog Oxidize Presen Recent Stunted Other (	, 4A and ust (B11) c Invertebren Sulfider ed Rhizos ce of Red dror Stress Explain in	rates (B13 e Odor (C1 pheres alo duced Iron luction in P sed Plants in Remarks  ):	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA Roots (C3) ills (C6)	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne Raised Frost-H	ry Indicators Stained Leave and 4B) The Patterns (Eason Water The Transport of Position of Aquitard (Dieutral Test (Dieutral Test (Dieutral Mounds eave Hummonds)	es (B9) (Mi B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR	required LRA 1, 2
PROLOGY  Vetland Hydrology Indicators (any of surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Surface Soil Crack Water-Stained Lea Sparsely Vegetated eld Observations: urface Water Present? Vater table Present?	licators: one indicator i ) (B2) (B4) s (B6) ves (B9) d Concave Su Yes Yes Yes Yes Yes	s sufficient	Water-  1, 2  Salt Cr  Aquatic  Hydrog  Oxidize  Presen  Recent  Stuntec  Other (  Dept  Dept	, 4A and ust (B11) c Invertebrate Sulfider ed Rhizos ce of Red d or Stress Explain in the (inches) h (inches)	rates (B13 e Odor (C1 pheres alo duced Iron luction in P sed Plants n Remarks  ): > > > > > 8"  ): > 8"	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne Raised Frost-H	ry Indicators Stained Leave and 4B) The Patterns (Eason Water The Transport of Position of Aquitard (Dieutral Test (Dieutral Test (Dieutral Mounds eave Hummonds)	es (B9) (Mil B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR pocks (D7)	require LRA 1, 2
epth (inches): 8"  PROLOGY  etland Hydrology Indicators (any of the second state of th	licators: one indicator ) (B2) (B4) s (B6) ves (B9) d Concave Su Yes Yes Yes Yes Yes Jestream gauge	s sufficient	Water-  1, 2  Salt Cr  Aquatic  Hydrog  Oxidize  Presen  Recent  Stuntec  Other (  Dept  Dept	, 4A and ust (B11) c Invertebrate Sulfider ed Rhizos ce of Red d or Stress Explain in the (inches) h (inches)	rates (B13 e Odor (C1 pheres alo duced Iron luction in P sed Plants n Remarks  ): > > > > > 8"  ): > 8"	) (except 1) 1) ong Living (C4) Plowed So s (D1) (LR	MLRA	Seconda Water-S 4A a Drainag Dry-Sea Saturat Geomo Shallow FAC-Ne Raised Frost-H	ry Indicators Stained Leave and 4B) The Patterns (Eason Water The Transport of Position of Aquitard (Dieutral Test (Dieutral Test (Dieutral Mounds eave Hummonds)	es (B9) (Mil B10) Fable (C2) In Aerial Ima In (D2) 3) (D5) (D6) (LRR pocks (D7)	require LRA 1, 2

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	: Tillamook			Sampling D	)ate:	8/22/2014
•	Tillamook County			, ,			State: OR		Point: P-19	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop		diked floodplain		_		-	, none): flat		Slope (%):	0-1%
` .	Columbia Plateau (			_	,		Long:		_	NAD27
Soil Map Unit Nar		uille silt loam, diked	_				NWI Classification:		-	-
•	rologic conditions on			/ear?	Yes			(If no, explain	in Remarks	)
Are Vegetation	, Soil				·-		ormal Circumstances			
Are Vegetation		, or Hydrology					ed, explain any answ			
, ao vogotation	, con			natarany pr	obiomatio.	(11 110001	ou, explain any allen	oro iir r tomant	0.)	
SUMMARY O	FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant features	, etc.	
	1	V. V. N.								
Hydrophytic Vege		Yes X No	-	Is the Sa	ampled Area	3	Vac v	Na		
Hydric Soil Prese		Yes X No	-	within	a Wetland?		Yes X	No		
Wetland Hydrolog		Yes X No								
Plot located at en	d of N-S road, at edg	e of wetland.								
VEGETATION										
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet:			
Troo Stratum (I	Jse scientific names.)	<b>\</b>	% Cover		Status?	Number o	f Dominant Species			
1	ose scientific names.,	)					DBL, FACW, or FAC	:	1	(4)
1						Total Num	ber of Dominant			_(A)
2							cross All Strata:		1	(B)
J						·				_(D)
4		Total Cover:					f Dominant Species <sup>·</sup> FACW, or FAC:		00%	(A/B)
		Total Cover.				Ale OBL,	FACVI, OI FAC.		00 /6	_(A/D)
Shrub Stratum						Prevalenc	e Index Worksheet	·-		
1							al % Cover of:		tiply by:	
2						OBL spec		x1 =	0	-
3						FACW spe		x2 =	0	=
4						FAC spec	-	x3 =	0	-
5.						FACU spe		x4 =	0	-
J		Total Cover:				UPL speci		x5 =	0	-
Herb Stratum						Column To		(A)	0	(B)
Phalaris arund	inacea		100	Υ	FACW		lence Index = B/A =			_(-/
2.										-
3.						Hydrophy	tic Vegetation Indi	cators:		
4.		,				X	Dominance Test is			
5.			-				Prevalence Index is			
6.							Morphological Ada		do ounnortin	~
7		,				-	data in Remarks or			y
8.							Problematic Hydro	•	,	1)
		Total Cover:	100				, ,	, ,	` '	,
Woody Vine St	ratum					1Indicators	s of hydric soil and w	etland hydrolo	av must be	
4						present.			9,	
2.		-			-	I leader alea	-4! -			
		Total Cover:	100			Hydrophy Vegetatio				
% Ba	re Ground in Herb St		Cover of Bi	otic Crust	0	Present?	11	Yes X	No	
	ated just south of mo							-	· · · —	
. Comanto. 1 lot loc	atou just south of Mil	ay noid.								

(inches)	Color (moist)	%	Color (	moist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture			Remarks	
	10YR 3/2	100	00101 (	70	Турс		SiL			Remains	
	10YR 3/2	95	10YR 3/4		5 C	M	gravelly SiL				
0.10	10111 0/2		101110	<u> </u>	<u> </u>		gravery or				
							_				
<sup>1</sup> Type: C=Co	oncentration, D=Dep	oletion, RI	M=Reduce	ed Matrix, CS=C	overed or 0	Coated S	and Grains. <sup>2</sup> Lo	ocation: F	PL=Pore Lini	ng, M=Matrix	
Hydric Soil I	Indicators: (Applic	able to a	ıll LRRs, ı	unless otherwis	se noted.)		Indicators f	for Proble	ematic Hydr	ic Soils³:	
Histoso	l (A1)			Sandy Redox	(S5)		_	2 cm	Muck (A10)	(LRR B)	
Histic E	pipedon (A2)			Stripped Matrix	k (S6)		_	Red I	Parent Mater	rial (TF2)	
Black H	listic (A3)			Loamy Mucky	Mineral (F1	) (excep	t MLRA 1)	Other	r (Explain in	Remarks)	
· ·	en Sulfide (A4)			Loamy Gleyed	-	2)					
	ed Below Dark Surfa	ce (A11)		Depleted Matri			2				
	Park Surface (A12)		<u>X</u>	Redox Dark Su	. ,			•	drophytic ve	_	
	Muck Mineral (S1)			Depleted Dark	-	7)		-	logy must be	-	
	gleyed Matrix (S4)			Redox Depres	sions (F8)		un	less distu	rbed or prob	lematic.	
Restrictive L	Layer (if present):										
Type:											
Type: Depth (inche	s):		<u> </u>			н	ydric Soil Pres	sent?	Yes	s <u>X</u>	No
Type: Depth (inche Remarks:	s):					Н	ydric Soil Pres	sent?	Yes	s <u>X</u>	No
Type: Depth (inche Remarks:	drology Indicators:					Н	ydric Soil Pres	sent?	Yes	s <u>X</u>	No
Type: Depth (inche Remarks:  IYDROLOGY Wetland Hyd			ufficient)			Н	ydric Soil Pres			s X  Dors (2 or more	
Type: Depth (inche demarks:  SYDROLOGY Wetland Hyder Primary Indice	drology Indicators:		ufficient)	Water-Stained	Leaves (B9			Secon	dary Indicato		e required)
Type: Depth (inche emarks:  YDROLOGY Wetland Hyd Primary Indic Surface	drology Indicators: cators (any one indic		ufficient)	1, 2, 4A an	d 4B)			Secon Wate	dary Indicator-Stained Le	ors (2 or more aves (B9) ( <b>M</b>	e required)
Type: Depth (inche emarks:  YDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati	drology Indicators: cators (any one indice water (A1) fater Table (A2) ion (A3)		ufficient)	<b>1, 2, 4A and</b> Salt Crust (B1	<b>d 4B</b> ) 1)	9) (excep		Secon Wate 4,4	dary Indicato r-Stained Le A and 4B) age Patterns	ors (2 or more vaves (B9) ( <b>M</b> s (B10)	e required)
Type: Depth (inche emarks:  YDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati Water M	drology Indicators: cators (any one indice water (A1) cater Table (A2) ion (A3) Marks (B1)		ufficient)	1, 2, 4A and Salt Crust (B12 Aquatic Inverte	<b>d 4B</b> ) 1) ebrates (B1	9) ( <b>exce</b> p		Secon Wate 44 Drain Dry-S	dary Indicator- r-Stained Le A and 4B) age Patterns Season Wate	ors (2 or more aves (B9) ( <b>M</b> s (B10) er Table (C2)	e required) LRA 1, 2,
Type: Depth (inche emarks:  YDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati Water M. Sedime	drology Indicators: cators (any one indice water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		ufficient)	1, 2, 4A and Salt Crust (B17 Aquatic Inverted Hydrogen Sulfi	d 4B) 1) ebrates (B1: ide Odor (C	9) ( <b>excer</b> 3)	ot MLRA	Secon Wate 44 Drain Dry-S	dary Indicator-Stained Le A and 4B) Lage Patterns Season Wateration Visible	ors (2 or more eaves (B9) ( <b>M</b> s (B10) er Table (C2) e on Aerial Im	e required) LRA 1, 2,
Type: Depth (inche demarks:    YDROLOGY	drology Indicators: cators (any one indice water (A1) fater Table (A2) ion (A3) warks (B1) ent Deposits (B2)		ufficient)	1, 2, 4A and Salt Crust (B1: Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo	d 4B) 1) ebrates (B1: ide Odor (C ospheres al	9) ( <b>excer</b> 3) 31) ong Livin	ot MLRA	Secon Wate 4,4 Drain Dry-S Satur Geon	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Positi	ors (2 or more eaves (B9) ( <b>M</b> s (B10) er Table (C2) e on Aerial Im tion (D2)	e required) LRA 1, 2,
Type: Depth (inche Remarks:  IYDROLOGY Wetland Hyd Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M	drology Indicators: cators (any one indicators) water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)		ufficient)	1, 2, 4A and Salt Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re	d 4B)  brates (B13)  de Odor (Cospheres alled	3) ( <b>excep</b> 3) (:1) ong Livin	ot MLRA	Secon Wate 44 Drain Dry-S Satur Geon Shall	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Position	ors (2 or more aves (B9) ( <b>M</b> s (B10) er Table (C2) e on Aerial Im tion (D2) (D3)	e required) LRA 1, 2,
Type: Depth (inche Remarks:  HYDROLOGY Wetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De	drology Indicators: cators (any one indicators (any one indicators) water (A1) cater Table (A2) cion (A3) warks (B1) cent Deposits (B2) ceposits (B3) ceposits (B3) ceposits (B4) ceposits (B5)		ufficient)	1, 2, 4A and Salt Crust (B1° Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Re	d 4B)  betrates (B1: ide Odor (Cospheres ale educed Iron eduction in l	9) (excep 3) :1) ong Livin n (C4) Plowed S	g Roots (C3)	Secon Wate 44 Drain Dry-S Satur Geon Shall	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Positiow Aquitard Neutral Test	ors (2 or more aves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3)	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  IYDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Surface	drology Indicators: cators (any one indice Water (A1) fater Table (A2) fon (A3) Marks (B1) fint Deposits (B2) feposits (B3) flat or Crust (B4) flat or Crust (B5) flat Soil Cracks (B6)	cator is su	ufficient)	1, 2, 4A and Salt Crust (B1: Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Ro Stunted or Stre	d 4B)  abrates (B1: abrates (Cospheres alreduced Iron abrates (B1: abr	3) (exception) (1) (1) (1) (1) (1) (1) (2) (2) (2) (3) (4) (4) (5) (6) (6) (7) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicator- r-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Position ow Aquitard Neutral Test	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  IYDROLOGY Wetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Water-S	drology Indicators: cators (any one indicators) water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9)	cator is su		1, 2, 4A and Salt Crust (B1° Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Re	d 4B)  abrates (B1: abrates (Cospheres alreduced Iron abrates (B1: abr	3) (exception) (1) (1) (1) (1) (1) (1) (2) (2) (2) (3) (4) (4) (5) (6) (6) (7) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Positiow Aquitard Neutral Test	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  IYDROLOGY Wetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Water-S Sparsel	drology Indicators: cators (any one indice water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) e Soil Cracks (B6) Stained Leaves (B9) ly Vegetated Concar	cator is su		1, 2, 4A and Salt Crust (B1: Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Ro Stunted or Stre	d 4B)  abrates (B1: abrates (Cospheres alreduced Iron abrates (B1: abr	3) (exception) (1) (1) (1) (1) (1) (1) (2) (2) (2) (3) (4) (4) (5) (6) (6) (7) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicator- r-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Position ow Aquitard Neutral Test	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  HYDROLOGY Wetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Water-S	drology Indicators: cators (any one indicators (any one indicators (any one indicators) water Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ly Vegetated Concarvations:	ve Surfac		1, 2, 4A and Salt Crust (B1: Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Ro Stunted or Stre	d 4B)  1)  brates (B1: ide Odor (Cospheres alreduced Iron eduction in lessed Plant in Remarks	3) (exception) (1) (1) (1) (1) (1) (1) (2) (2) (2) (3) (4) (4) (5) (6) (6) (7) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicator- r-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Position ow Aquitard Neutral Test	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  HYDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati Water M. Sedime Drift De Algal M. Iron De Surface Water-S Sparsel Field Observ Surface Water table F	drology Indicators: cators (any one indicators) water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ly Vegetated Concar vations: er Present? Yes Present? Yes	ve Surfac	ee (B8)	1, 2, 4A and Salt Crust (B1: Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Ro Stunted or Stre Other (Explain  Depth (inches	d 4B)  1)  brates (B1: ide Odor (Coppheres alreduced Ironeduction in Persed Plant in Remarks  es):  >>16"	3) (exception) (1) (1) (1) (1) (1) (1) (2) (2) (2) (3) (4) (4) (5) (6) (6) (7) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	g Roots (C3) Soils (C6)	Secon Wate 4/4 Drain Dry-S Satur Geon Shall (FAC- Raise Frost	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Positiow Aquitard Neutral Tested Ant Mount-Heave Hum	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR amocks (D7)	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  HYDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati Water N Sedime Drift De Algal M Iron De Surface Water-S Sparsel  Field Observ Surface Water table F Saturation Prince	drology Indicators: cators (any one indicators) water (A1) fater Table (A2) fon (A3) Marks (B1) fint Deposits (B2) posits (B3) flat or Crust (B4) posits (B5) flat or Cracks (B6) Stained Leaves (B9) fly Vegetated Concar vations: for Present? for Yes fresent? for Water (A1) for Water (A2) for Water (A2) for Water (A3) for	ve Surfac	ee (B8)	1, 2, 4A and Salt Crust (B1: Aquatic Inverted Hydrogen Sulfi Oxidized Rhizo Presence of Recent Iron Restanted or Street Other (Explain Depth (inches	d 4B)  1)  brates (B1: ide Odor (Coppheres alreduced Ironeduction in Persed Plant in Remarks  es):  >>16"	3) (exception) (1) (1) (1) (1) (1) (1) (2) (2) (2) (3) (4) (4) (5) (6) (6) (7) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	g Roots (C3)	Secon Wate 4/4 Drain Dry-S Satur Geon Shall (FAC- Raise Frost	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Positiow Aquitard Neutral Tested Ant Mount-Heave Hum	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  HYDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati Water N Sedime Drift De Algal M Iron De Surface Water-S Sparsel  Field Observ Surface Water table F Saturation Pr (includes cap	drology Indicators: cators (any one indicators) water (A1) fater Table (A2) fon (A3) Marks (B1) fint Deposits (B2) posits (B3) flat or Crust (B4) posits (B5) flat or Cracks (B6) Stained Leaves (B9) fly Vegetated Concar vations: for Present? for Yes fresent? for Water (A1) for Water (A2) for Water (A2) for Water (A3) for	ve Surfac	ee (B8)  No X No X No X	1, 2, 4A and Salt Crust (B1: Aquatic Inverted Hydrogen Sulfi Oxidized Rhizor Presence of Recent Iron Results Stunted or Street Other (Explain Depth (inched	d 4B)  abrates (B1: abrates (B1	3) 3) 3) ong Livin 1 (C4) Plowed S 5 (D1) (L 6)	g Roots (C3) Soils (C6)  RR A)  Wetland Hyd	Secon Wate 4/ Drain Dry-S Satur Geon Shall FAC- Raise Frost	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Positiow Aquitard Neutral Tested Ant Mount-Heave Hum	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR amocks (D7)	e required) LRA 1, 2, agery (C9)
Type: Depth (inche Remarks:  HYDROLOGY Wetland Hyd Primary Indic Surface High W. Saturati Water N Sedime Drift De Algal M Iron De Surface Water-S Sparsel  Field Observ Surface Water table F Saturation Pr (includes cap	drology Indicators: cators (any one indicators) water (A1) fater Table (A2) fon (A3) Marks (B1) font Deposits (B2) feposits (B3) fat or Crust (B4) fiposits (B5) for Soil Cracks (B6) Stained Leaves (B9) fly Vegetated Concar vations: for Present? for Present? for Stained Yes fresent?	ve Surfac	ee (B8)  No X No X No X	1, 2, 4A and Salt Crust (B1: Aquatic Inverted Hydrogen Sulfi Oxidized Rhizor Presence of Recent Iron Results Stunted or Street Other (Explain Depth (inched	d 4B)  abrates (B1: abrates (B1	3) 3) 3) ong Livin 1 (C4) Plowed S 5 (D1) (L 6)	g Roots (C3) Soils (C6)  RR A)  Wetland Hyd	Secon Wate 4/ Drain Dry-S Satur Geon Shall FAC- Raise Frost	dary Indicator-Stained Le A and 4B) age Patterns Season Wateration Visible norphic Positiow Aquitard Neutral Tested Ant Mount-Heave Hum	ors (2 or more eaves (B9) (M s (B10) er Table (C2) e on Aerial Im tion (D2) (D3) e (D5) ds (D6) (LRR amocks (D7)	e required) LRA 1, 2, agery (C9)

Project/Site: Tillamook - Southern Flow Corridor  Applicant/Owner: Tillamook County  Investigator(s): Greta Presley and Shane Latimer  Landform (hillslope, terrace, etc.): diked floodplain  Subregion (LRR): Columbia Plateau (LRR B)  Soil Map Unit Name: (102A) Fluvaquents-Histosols  Are climatic / hydrologic conditions on the site typical for	Lat: complex, dik	_ Sect _ Local	relief (conca	State: OR ip, Range: 1S 10W Sec 23 ive, convex, none): flat 45.4700 Long:  NWI Classification:  No	-123.87524 Datum	0-1% : NAD27
Are Vegetation , Soil , or Hydrology Are Vegetation , Soil , or Hydrology  SUMMARY OF FINDINGS – Attach site map		significantly naturally pro	disturbed?	Are "Normal Circumstance (If needed, explain any ansv	vers in Remarks.)	No
	o X o X	within a	ampled Area a Wetland?	Yes	No X	
VEGETATION						
Tree Stratum (Use scientific names.) 1.	Absolute % Cover	Dominant Species?	Indicator Status?	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC		_(A)
2				Total Number of Dominant Species Across All Strata:	3	(B)
4. Total Cover	:			Percent of Dominant Species Are OBL, FACW, or FAC:	-	_(A/B)
Shrub Stratum  1. 2. 3. 4. 5.	<u></u>			Prevalence Index Workshee Total % Cover of:  OBL species FACW species FAC species FACU species FACU species	t:  Multiply by:  x1 = 0  x2 = 0  x3 = 0  x4 = 0	- - -
Total Cover  Herb Stratum  1. Agrostis capillaris 2. Alopecurus pratensis	40	Y Y	FAC FAC	UPL species Column Totals:  Prevalence Index = B/A =	x5 = 0 (A) 0 #DIV/0!	_ _ _(B) _
3. Aira elegans 4. Holcus lanatus 5. Juncus effusus 6	20 10 5	Y	NOL FAC FACW	data in Remarks of	>50%	
Total Cover <u>Woody Vine Stratum</u> 1.				<sup>1</sup> Indicators of hydric soil and w present.		,
2Total Cover			0	Hydrophytic Vegetation Present?	Yes <u>X</u> No	

inches) C	Color (moist)	%	Color (moist	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	RE	emarks
-6 10YF	₹ 3/3	100					SiL		
-16 10YF	R 2/1	100		_	·		gravelly sand	likely slough spoils	S
ype: C=Conce	ntration, D=Dep	oletion, RM	1=Reduced Ma	trix, CS=Co	vered or Co	oated Sar	nd Grains. <sup>2</sup> Loc	ation: PL=Pore Lining,	M=Matrix.
ydric Soil Indic	ators: (Applic	able to al	I LRRs, unles	otherwise	noted.)		Indicators fo	r Problematic Hydric S	Soils <sup>3</sup> :
Histosol (A1	)		San	ly Redox (S	55)			2 cm Muck (A10) (LR	•
Histic Epipe				ped Matrix (	-			Red Parent Material (	
Black Histic				ny Mucky M		(except	MLRA 1)	Other (Explain in Rer	marks)
_ Hydrogen S	. ,			ny Gleyed N					
_	elow Dark Surfa	ce (A11)		eted Matrix	` '		2		
	Surface (A12)			ox Dark Sur	. ,			rs of hydrophytic vegeta	
_	(Mineral (S1)			eted Dark S		)		d hydrology must be pro	
	ed Matrix (S4)		Red	x Depressi	ons (F8)		unle	ss disturbed or problem	atic.
estrictive Lave	r (if present):								
•									
rpe:									
vpe: epth (inches):						Ну	dric Soil Prese	nt? Yes_	<u>No X</u>
rpe: epth (inches): narks:	pay Indicators:					Ну	dric Soil Prese	nt? Yes_	No <u>X</u>
pe: epth (inches): earks: eROLOGY etland Hydrolo			ificient)			Ну	dric Soil Prese		
rpe: epth (inches): narks:  PROLOGY etland Hydrolo imary Indicators	s (any one indic			er-Stained L	eaves (B9)			Secondary Indicators (	(2 or more require
pe: epth (inches): earks: eROLOGY etland Hydrolo	s (any one indic ter (A1)		Wate	er-Stained L , <b>2</b> , <b>4A and</b>					(2 or more require
pe: epth (inches): earks: eROLOGY etland Hydrolo imary Indicators Surface War	s (any one indic ter (A1) Table (A2)		Wate		4B)			Secondary Indicators ( Water-Stained Leave	(2 or more require
PROLOGY etland Hydrolo imary Indicators Surface Wat High Water	s (any one indic ter (A1) Table (A2) A3)		Wate 1 Salt	2, 4A and	4B)	(except		Secondary Indicators ( Water-Stained Leave 4A and 4B)	(2 or more require es (B9) ( <b>MLRA 1,</b> 2
PROLOGY etland Hydrolo imary Indicators Surface Wat High Water Saturation ( Water Marks	s (any one indic ter (A1) Table (A2) A3)		Wate Salt Aqua	, <b>2, 4A and</b> Crust (B11)	<b>4B</b> ) orates (B13)	(except		Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B	(2 or more require es (B9) ( <b>MLRA 1,</b> 2 310) able (C2)
PROLOGY etland Hydrolo imary Indicators Surface Wat High Water Saturation ( Water Marks	s (any one indic ter (A1) Table (A2) A3) s (B1) eposits (B2)		Wate 1 Salt Aqua	, <b>2, 4A and</b> Crust (B11) atic Inverteb ogen Sulfid	<b>4B</b> ) orates (B13) e Odor (C1	(except		Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta	(2 or more require es (B9) ( <b>MLRA 1,</b> 2 810) able (C2) Aerial Imagery (C
PROLOGY etland Hydrolo imary Indicators Surface Wat High Water Saturation ( Water Marks	s (any one indic ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3)		Wate Salt Aqua Hyde Oxice	, <b>2, 4A and</b> Crust (B11) atic Inverteb ogen Sulfid	<b>4B</b> ) prates (B13) e Odor (C1 pheres alor	(except	MLRA	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on	(2 or more require es (B9) ( <b>MLRA 1,</b> 2 810) able (C2) Aerial Imagery (C
PROLOGY etland Hydrolo imary Indicators Surface War High Water Saturation ( Water Marks Sediment De Drift Deposit	s (any one indic ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3)		Wate 1 Salt Aqua Hyde Oxid	, <b>2, 4A and</b> Crust (B11) atic Inverteb ogen Sulfid	arates (B13) e Odor (C1 pheres alor duced Iron (	(except ) ) ng Living (C4)	MLRA	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position	(2 or more require es (B9) ( <b>MLRA 1,</b> 2 310) able (C2) Aerial Imagery (C 1 (D2)
PROLOGY etland Hydrolo imary Indicators Surface Wat High Water Saturation ( Water Marks Sediment Do Drift Deposit Algal Mat or	s (any one indic ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3)		Wate  1 Salt Aque Hyde Oxid Pres Rece Stur	, 2, 4A and Crust (B11) atic Inverteb ogen Sulfid- ized Rhizos ence of Rec ent Iron Red ted or Stres	rates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3)	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3)	(2 or more require es (B9) (MLRA 1, 2 able (C2) Aerial Imagery (C (D2)
Per Epth (inches):	s (any one indicater (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) s (B5) Cracks (B6) ed Leaves (B9)	cator is suf	Wate  1 Salt Aqua Hyde Oxic Pres Recc Stur Othe	, 2, 4A and Crust (B11) atic Inverteb ogen Sulfid- ized Rhizos ence of Rec ent Iron Red	rates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3)	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D8	(2 or more require es (B9) (MLRA 1, 2 810) able (C2) Aerial Imagery (C (D2) 3) 5) (D6) (LRR A)
PROLOGY etland Hydrologimary Indicators Surface Wat High Water Saturation ( Water Marks Sediment Do Drift Deposit Algal Mat or Iron Deposit Surface Soil Water-Stain Sparsely Ve	s (any one indicater (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) s (B5) Cracks (B6) ed Leaves (B9)	cator is suf	Wate  1 Salt Aqua Hyde Oxic Pres Recc Stur Othe	, 2, 4A and Crust (B11) atic Inverteb ogen Sulfid- ized Rhizos ence of Rec ent Iron Red ted or Stres	rates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3)	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D8 Raised Ant Mounds (	(2 or more require es (B9) (MLRA 1, 2 810) able (C2) Aerial Imagery (C (D2) 3) 5) (D6) (LRR A)
Presepth (inches):	s (any one indicater (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) s (B5) Cracks (B6) ed Leaves (B9) egetated Concar	ve Surface	Wate  1 Salt Aqui Hydr Oxio Pres Reco Stur Othe	, 2, 4A and Crust (B11) atic Inverteb ogen Sulfid- ized Rhizos ence of Rec ent Iron Red ted or Stres r (Explain in	prates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl sed Plants in Remarks)	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3)	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D8 Raised Ant Mounds (	(2 or more require es (B9) (MLRA 1, 2 810) able (C2) Aerial Imagery (C (D2) 3) 5) (D6) (LRR A)
ppe: epth (inches): narks:  DROLOGY retland Hydrologimary Indicators Surface Water Saturation (inches): Water Marks Sediment Do Drift Deposit Algal Mat or Iron Deposit Surface Soil Water-Stain Sparsely Verical Cobservation urface Water Pr	s (any one indicater (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) s (B5) Cracks (B6) ed Leaves (B9) egetated Concar ons: esent? Yes	ve Surface	Wate Salt Aqua Hyde Oxio Pres Reco Stur Other e (B8)	crust (B11) atic Inverteb ogen Sulfid ized Rhizos ence of Recent Iron Red ted or Stres r (Explain ir	prates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl sed Plants n Remarks)	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3)	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D8 Raised Ant Mounds (	(2 or more require es (B9) (MLRA 1, 2 810) able (C2) Aerial Imagery (C (D2) 3) 5) (D6) (LRR A)
ppe: epth (inches): narks:  DROLOGY  retland Hydrologimary Indicators Surface Wat High Water Saturation (a) Water Marks Sediment Do Drift Deposit Algal Mat or Iron Deposit Surface Soil Water-Stain	s (any one indicater (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) s (B5) Cracks (B6) ed Leaves (B9) egetated Concater ons: esent? Yesent?	ve Surface	Wate   Pres   Reco   Stur   Other   Ro   X   De No   X   De No	, 2, 4A and Crust (B11) atic Inverteb ogen Sulfid- ized Rhizos ence of Rec ent Iron Red ted or Stres r (Explain in	rates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl sed Plants n Remarks)  ): >16"	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA  Roots (C3)  iils (C6)  R A)	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ( Frost-Heave Hummon	(2 or more require es (B9) (MLRA 1, 2 810) able (C2) Aerial Imagery (C (D2) 3) 5) (D6) (LRR A)
pe: epth (inches): epth (inches): epth (inches): epth (inches): epth (inches): enarks:  DROLOGY fetland Hydrologitation Surface Water Saturation (inches) Surface Water Saturation (inches) Sediment Dougle Drift Deposite Algal Mat or Iron Deposite Surface Soil Water-Stain Sparsely Vereld Observation Sparsely Vereld Observation Fescional Surface Water Products of the Present Saturation Present	s (any one indicater (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) s (B5) Cracks (B6) ed Leaves (B9) egetated Concate ons: esent? Yes ent? Yes y fringe)	ve Surface	Wate	crust (B11) atic Inverteb ogen Sulfide ized Rhizos ence of Recent Iron Red ted or Stres r (Explain ir  pth (inches pth (inches	prates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl sed Plants n Remarks)  ): >16" >16"	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA  Roots (C3)  iils (C6)  R A)  Wetland Hydr	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ( Frost-Heave Hummore	(2 or more require es (B9) (MLRA 1, 2) (B10) (B10) (Aerial Imagery (C) (D2) (D2) (D6) (LRR A) (D6) (LRR A) (D6) (LRR A) (D6) (CS) (D7)
PROLOGY etland Hydrologimary Indicators Surface Wat High Water Saturation ( Water Marks Sediment Do Drift Deposit Algal Mat or Iron Deposit Surface Soil Water-Stain Sparsely Ve eld Observatio urface Water Pr ater table Presentation Presentation	s (any one indicater (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) s (B5) Cracks (B6) ed Leaves (B9) egetated Concate ons: esent? Yes ent? Yes y fringe)	ve Surface	Wate	crust (B11) atic Inverteb ogen Sulfide ized Rhizos ence of Recent Iron Red ted or Stres r (Explain ir  pth (inches pth (inches	prates (B13) e Odor (C1 spheres alor duced Iron ( duction in Pl sed Plants n Remarks)  ): >16" >16"	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA  Roots (C3)  iils (C6)  R A)  Wetland Hydr	Secondary Indicators ( Water-Stained Leave 4A and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ( Frost-Heave Hummore	(2 or more require es (B9) (MLRA 1, 2) (B10) (B10) (Aerial Imagery (C) (D2) (D2) (D6) (LRR A) (D6) (LRR A) (D6) (LRR A) (D6) (CS) (D7)

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County	: Tillamook			Sampling [	Date:	8/22/2014
•	Tillamook County			, ,			State: OR		Point: P-21	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop	•	diked floodplain		_		-	, none): flat		Slope (%):	0-1%
` .	Columbia Plateau (		Lat:	_	`		Long:			: NAD27
Soil Map Unit Nar		aquents-Histosols	_				NWI Classification:		=	
•	rologic conditions on	•			Yes			(If no, explain	in Remarks	)
Are Vegetation	, Soil				_		ormal Circumstance	-		
Are Vegetation		, or Hydrology					ed, explain any answ			
7110 Yogotation	, con			natarany pr	obiomatio.	(11 110001	ou, explain any anew	oro in ritornari		
SUMMARY O	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant features	s, etc.	
Hydrophytic Vege	etation Present?	Yes X No	<u> </u>							
Hydric Soil Prese		Yes X No			ampled Area	1	Yes X	No		
Wetland Hydrolog		Yes X No		within	a Wetland?		<u> </u>		<del></del>	
	eximately 20 feet nort			ultural field						
	·		· ·							
VEGETATION	1									
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet:			
Tree Stratum (L	Jse scientific names.)	)	% Cover	Species?	Status?		f Dominant Species			
1.	·					That Are (	DBL, FACW, or FAC	:	4	(A)
2.						Total Num	ber of Dominant			
3.						Species A	cross All Strata:		4	(B)
4.						Percent of	Dominant Species	That		
		Total Cover:	:			Are OBL,	FACW, or FAC:		100%	_(A/B)
Shrub Stratum							e Index Workshee			
1						-	al % Cover of:	-	ıltiply by:	=
2.						OBL spec		_x1 =	0	-
3. 4						FACW spe		x2 =		=
4						FAC spec FACU spe		x3 = x4 =	0	_
J		Total Cover:				UPL speci		x5 =	0	-
Herb Stratum		Total Gover	·			Column To		(A)	0	(B)
Alopecurus pra	atensis		30	Υ	FAC		lence Index = B/A =	- ' '	V/0!	_(D)
Holcus lanatus			30	Y	FAC	11044	ienee maex - B// t	#51	470.	=
Juncus effusus			20	Y	FACW	Hydronhy	rtic Vegetation Indi	cators:		
4. Lotus cornicula			20	Y	FAC	Х	Dominance Test is			
5.							Prevalence Index is			
6.		_			-		Morphological Ada		ide supportin	na.
7		-					data in Remarks or			y
8.							Problematic Hydro	phytic Vegetat	tion <sup>1</sup> (Explair	1)
		Total Cover:	100		-			, ,	` '	,
Woody Vine St	ratum					<sup>1</sup> Indicators	of hydric soil and w	etland hydrold	ogy must be	
1.						present.	•	,	0,	
2.						Hydrophy	rtic			
_		Total Cover:	100			Vegetatio				
% Ba	are Ground in Herb St	ratum %	Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks: Mown	or grazed					i				
	-									

Profile De	scription: (Describe	to the de	pth needed to do	ocument 1	the indica	ator or	confirm the abser	nce of indicators.)
Depth	Matrix		Re	edox Feat	ures			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u> %	Type <sup>1</sup>	Loc	<sup>2</sup> Texture	Remarks
0-6	10YR 3/2	100					SiCI	old organics, mottling at 6"
6-8	G2 5B 2.5/1	80	10YR 4/4	20	С	<u>m</u>	gravelly sand	mixed with clay
8-16	10YR 2/1						gravelly sand	
								<u> </u>
	· -	· ——				-		<u> </u>
	-						_	<del> </del>
			<u>,</u>					<u>-</u>
<sup>1</sup> Type: C=	Concentration, D=Dep	oletion, RN	M=Reduced Matrix	c, CS=Cov	ered or C	Coated	Sand Grains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
Hydric So	il Indicators: (Applic	able to a	II LRRs, unless o	therwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
	sol (A1)			Redox (S	•			2 cm Muck (A10) ( <b>LRR B</b> )
	Epipedon (A2)			d Matrix (	-			Red Parent Material (TF2)
	( Histic (A3)			•	•	, ,	pt MLRA 1)	Other (Explain in Remarks)
	ogen Sulfide (A4)			Gleyed M	•	)		
	eted Below Dark Surfa	ce (A11)		ed Matrix (	` '		31	of hydrophytict-ti
	Dark Surface (A12)			Dark Surf ed Dark S		7)		rs of hydrophytic vegetation and
	ly Muck Mineral (S1) ly gleyed Matrix (S4)			Depressio		<i>(</i> )		d hydrology must be present, ss disturbed or problematic.
	e Layer (if present):		1\edox	Depressio	) (1 0)		une	ss disturbed of problematic.
	c Layer (ii precent).							
Type: Depth (incl	hes):						Hydric Soil Presei	nt? Yes X No
Remarks: Sc							<b>,</b>	
HYDROLOG	SY.							
Wetland H	lydrology Indicators:	!						
	dicators (any one indic	cator is su						Secondary Indicators (2 or more required)
	ice Water (A1)					exce) (exce	ept MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
	Water Table (A2)		•	, 4A and 4	4B)			4A and 4B)
	ration (A3)			ust (B11)				Drainage Patterns (B10)
	er Marks (B1)			Invertebr	•	•		Dry-Season Water Table (C2)
	ment Deposits (B2)			en Sulfide				Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)			-		_	ing Roots (C3)	Geomorphic Position (D2)
	Mat or Crust (B4)			ce of Red		, ,	Soils (C6)	Shallow Aquitard (D3)
	Deposits (B5) ace Soil Cracks (B6)			d or Stress				FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
	er-Stained Leaves (B9)			Explain in		, ,		Frost-Heave Hummocks (D7)
	sely Vegetated Conca			Lxpiaiii iii	rtemarks	·)		_ 1 Tost-fleave Fluminocks (BT)
Field Obs							1	
	ater Present? Yes	3	No X Dept	h (inches)	:			
	e Present? Yes			h (inches)				
Saturation		s <u>X</u>	No Dept	h (inches)	: <u>6"</u>		Wetland Hydro	ology Present? Yes X No
	capillary fringe) corded Data (stream g	auge. mo	nitoring well. aeria	al photos.	previous	inspect	ions), if available:	
	· ·	,	,ge.ii, aoin	F.1.0.00,				
Remarks: At	base of slope							

Project/Site: Tillamook - Southern Flow Corridor		City/County:	Tillamook			Samplin	ng Date:	9/15/2014
Applicant/Owner: Tillamook County		, ,			State: OR	- Samplir	ng Point: P-22	
Investigator(s): Greta Presley and Shane Latimer		Sect	tion, Townshi	ip, Range:	1S 10W Sec 23	- ·		
Landform (hillslope, terrace, etc.): diked floodplain		_		-	none): concave		Slope (%):	0-1%
Subregion (LRR): NW Forests and Coasts (LRR A)	Lat:	_			Long:			NAD27
Soil Map Unit Name: (102A) Fluvaquents-Histosols					NWI Classification:			
Are climatic / hydrologic conditions on the site typical for			Yes >	 X			lain in Remarks	)
Are Vegetation, Soil, or Hydrology	-		_			='		
Are Vegetation, Soil, or Hydrology					d, explain any ansv			
Are vegetation, 30ii, or rigurology		riaturally pri	oblematic:	(II Heede	u, explain any ansv	vers in Neii	iaiks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	tions, tra	nsects, import	ant featu	res, etc.	
	o	Is the Sa	ampled Area	1				
Hydric Soil Present? Yes X No	D		a Wetland?	•	Yes X	No		
Wetland Hydrology Present? Yes X No	D							
Plot located at base of levee slope near wetland/upland b	ooundary.							
VEGETATION								
	Absolute	Dominant	Indicator	Dominano	e Test worksheet:	<u> </u>		
Tree Obstance (Use asignificance)	% Cover	Species?	Status?		Dominant Species			
Tree Stratum (Use scientific names.)			·		FACW, or FAC:	mat	4	(4)
1					•		1	_(A)
2					ber of Dominant cross All Strata:			<b>(D)</b>
3			·	Opcolco / to	oroso 7 in Otrata.		1	_(B)
4Total Cover:	:				Dominant Species FACW, or FAC:	That ——	100%	_(A/B)
Shrub Stratum				Prevalenc	e Index Workshee	t:		
1.					I % Cover of:		Multiply by:	
•				OBL speci		x1 =		_
2			-	FACW spe				=
o			· <del></del>	FAC speci		x3 =	0	_
4			·	FACU speci		_x3 = x4 =	0	_
J	.——		· <del></del>		-	- ' '		-
Total Covers	·			UPL specie		x5 =		- (D)
Herb Stratum	400		FACW	Column To	-	_(A)		_(B)
1. <u>Phalaris arundinacea</u>			FACVV	Preva	ence Index = B/A =	<u> </u>	:DIV/0!	=
2			-	Hydronby	tic Vegetation Indi	catore:		
3					Dominance Test is			
4			. ———		Prevalence Index i			
5			. ———					
6					Morphological Ada			g
7		-			data in Remarks o	•	,	
8					Problematic Hydro	phytic Vege	etation (Explain	)
Total Cover	100			1				
Woody Vine Stratum					of hydric soil and w	etland hyd	rology must be	
1		-		present.				
2				Hydrophy	tic			
Total Cover:				Vegetation	n			
% Bare Ground in Herb Stratum %	Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks: Partially mown.								

(inches)	Color (moist)	%	Color (m	noist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 3/3	100	<u> </u>	70	Туре	LUC	SiL	Itemarks
6-16	10YR 3/1	60	10YR 3/4		С	M	SiCl	
0-10	10110 3/1		7.5YR 3/4			PL	3101	
			7.011074		<del>-</del>	<u> </u>	_	
		. ——					_	
				<del></del>				_
							-	_
							_	
<sup>1</sup> Type: C=C	oncentration, D=Dep	oletion, R	M=Reduced	d Matrix, CS=Cov	vered or C	coated S	and Grains. <sup>2</sup> Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to a			-		Indicators f	or Problematic Hydric Soils <sup>3</sup> :
Histoso	` '			Sandy Redox (S			_	2 cm Muck (A10) ( <b>LRR B</b> )
	Epipedon (A2)			Stripped Matrix (			_	Red Parent Material (TF2)
	Histic (A3)			Loamy Mucky M			t MLRA 1)	Other (Explain in Remarks)
	gen Sulfide (A4)			Loamy Gleyed M		)	_	Very Shallow Dark Surface (TF12)
	ed Below Dark Surfa	ce (A11)		Depleted Matrix			^	
	Dark Surface (A12)			Redox Dark Surf				tors of hydrophytic vegetation and
	Muck Mineral (S1)			Depleted Dark S	,	7)		and hydrology must be present,
	gleyed Matrix (S4)			Redox Depression	ons (F8)		unl	ess disturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (inche	es):					н	ydric Soil Pres	ent? Yes X No _
Depth (inche						н	ydric Soil Pres	ent? Yes X No _
Depth (inche Remarks:						Н	ydric Soil Pres	ent? Yes X No
Depth (inche Remarks: HYDROLOGY Wetland Hy	,		ufficient)			н	ydric Soil Pres	ent? Yes X No _
Depth (inche Remarks: HYDROLOGY Wetland Hy Primary Indi	drology Indicators:			Water-Stained Lo	eaves (B9			
Depth (inches Remarks:  IYDROLOGY Wetland Hy Primary Indi Surface	drology Indicators:			Water-Stained Lo				Secondary Indicators (2 or more requ
Depth (inches and inches and inch	rdrology Indicators: cators (any one indic e Water (A1)							Secondary Indicators (2 or more requ Water-Stained Leaves (B9) ( <b>MLRA</b>
Depth (inche Remarks: HYDROLOGY Wetland Hy Primary Indi Surface High W Satura	rdrology Indicators: cators (any one indic e Water (A1) /ater Table (A2)		_	1, 2, 4A and	<b>4B</b> )	excep		Secondary Indicators (2 or more requ Water-Stained Leaves (B9) (MLRA 44 and 4B)
Depth (inche Remarks:  HYDROLOGY  Wetland Hy  Primary Indi  Surfact  High W  Satura  Water	rdrology Indicators: cators (any one indic e Water (A1) Vater Table (A2) tion (A3)			1, 2, 4A and Salt Crust (B11)	<b>4B</b> ) rates (B13	e) (excep		Secondary Indicators (2 or more requ Water-Stained Leaves (B9) (MLRA 1 4A and 4B) Drainage Patterns (B10)
Depth (inche Remarks:  HYDROLOGY  Wetland Hy  Primary Indi  Surface  High W  Satura  Water  Sedime	rdrology Indicators: cators (any one indic e Water (A1) Vater Table (A2) tion (A3) Marks (B1)		_	1, 2, 4A and 4 Salt Crust (B11) Aquatic Inverteb	<b>4B</b> ) rates (B13 e Odor (C	9) ( <b>excer</b> 3)	ot MLRA	Secondary Indicators (2 or more requivater-Stained Leaves (B9) (MLRA 44 and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Nemarks:  HYDROLOGY  Wetland Hy  Primary Indi  Surface  High W  Satura  Water  Sedime  Drift De	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)			1, 2, 4A and a Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide	<b>4B</b> ) rates (B13 e Odor (C pheres ald	9) (excep 3) 1) ong Livin	ot MLRA	Secondary Indicators (2 or more requestion Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery
HYDROLOGY Wetland Hy Primary Indi Surface High W Satura Water Sedime Drift De	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)			1, 2, 4A and a Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizos	<b>4B</b> ) rates (B13 e Odor (Copheres alcounted Iron	3) 1) ong Livin (C4)	g Roots (C3)	Secondary Indicators (2 or more requivater-Stained Leaves (B9) (MLRA 44 and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2) Shallow Aquitard (D3)
Depth (inche Remarks:    Semarks:   Semarks:	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vater Crust (B4)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebi Hydrogen Sulfide Oxidized Rhizos Presence of Red	4B) rates (B13 e Odor (C pheres ald luced Iron uction in F	3) 1) ong Livin (C4) Plowed S	g Roots (C3)	Secondary Indicators (2 or more requivater-Stained Leaves (B9) (MLRA 44 and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)
Depth (inche Remarks:  IYDROLOGY Wetland Hy Primary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De Surface	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4) eposits (B5)	cator is su		1, 2, 4A and a Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red	rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants	3) 1) 2) (exception of the control o	g Roots (C3)	Secondary Indicators (2 or more requivater-Stained Leaves (B9) (MLRA 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inche Remarks:  HYDROLOGY  Wetland Hy  Primary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water-	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4) eposits (B5) e Soil Cracks (B6)	cator is su	<u> </u>	1, 2, 4A and a Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress	rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants	3) 1) 2) (exception of the control o	g Roots (C3)	Secondary Indicators (2 or more requestate Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Depth (inche Remarks:  HYDROLOGY Wetland Hy Primary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water- Sparse Field Obser	rdrology Indicators: cators (any one indice Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vator Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar vations:	ve Surfac	X ————————————————————————————————————	1, 2, 4A and a Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	rates (B13 e Odor (C' pheres alc luced Iron uction in F sed Plants i Remarks	3) 1) 2) (exception of the control o	g Roots (C3)	Secondary Indicators (2 or more requestate Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Depth (inche Remarks:  Remarks:  RYDROLOGY  Wetland Hy  Primary Indi  Surface  High W  Satura  Water  Sedime  Drift De  Algal M  Iron De  Surface  Water-  Sparse  Field Obser  Surface Wat	rdrology Indicators: cators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicators) read (any one indic	ve Surfac	x 	1, 2, 4A and a Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress Other (Explain in Depth (inches)	rates (B13 e Odor (C' pheres alc luced Iron uction in F sed Plants Remarks	3) 1) 2) (exception of the control o	g Roots (C3)	Secondary Indicators (2 or more requestate Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Depth (inche Remarks:  RYDROLOGY  Wetland Hy  Primary Indi  Surface  High W  Satura  Water  Sedime  Drift De  Algal M  Iron De  Surface  Water-  Sparse  Field Obser	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vator Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar rvations: ter Present? Yes Present? Yes	ve Surfac	X ————————————————————————————————————	1, 2, 4A and a Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants Remarks	3) 1) 2) (exception of the control o	g Roots (C3)	Secondary Indicators (2 or more requestate Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Depth (inche Remarks:  Remarks:  RYDROLOGY  Wetland Hy  Primary Indi  Surface  High W  Satura  Water  Sedime  Drift De  Algal M  Iron De  Surface  Water-  Sparse  Field Obser  Surface Wat  Water table  Saturation F  (includes ca	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vator Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar rvations: ter Present? Yes Present? Yes pillary fringe)	ve Surfac	Ee (B8)  No X No X No X No X	1, 2, 4A and a Salt Crust (B11) Aquatic Inverteble Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress Other (Explain in  Depth (inches) Depth (inches)	rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants Remarks	O) (exception)  O) (exception)	g Roots (C3) soils (C6) X RR A)	Secondary Indicators (2 or more requestate Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Pepth (inche Remarks:  HYDROLOGY  Wetland Hy  Primary Indi  Surface  High W  Satura  Water  Sedime  Drift De  Algal M  Iron De  Surface  Water-  Sparse  Field Obser  Surface Wat  Water table  Saturation F  (includes ca	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vator Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar rvations: ter Present? Yes Present? Yes	ve Surfac	Ee (B8)  No X No X No X No X	1, 2, 4A and a Salt Crust (B11) Aquatic Inverteble Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress Other (Explain in  Depth (inches) Depth (inches)	rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants Remarks	O) (exception)  O) (exception)	g Roots (C3) Soils (C6) X RR A)	Secondary Indicators (2 or more requestate Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Depth (inche Remarks:  HYDROLOGY Wetland Hy Primary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water- Sparse Field Obser Surface Wat Water table Saturation F (includes ca	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vator Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar rvations: ter Present? Yes Present? Yes pillary fringe)	ve Surfaces	ee (B8)  No X No X No X No X Onitoring we	1, 2, 4A and a Salt Crust (B11) Aquatic Inverteble Hydrogen Sulfide Oxidized Rhizose Presence of Red Recent Iron Red Stunted or Stress Other (Explain in Depth (inches) Depth (inches) Depth (inches) ell, aerial photos,	rates (B13 e Odor (Crepheres alcoluced Iron uction in Fesed Plants a Remarks  : >16" : >16" previous i	B) (exception) 1) 2) (exception) 1) 2) (c4) 2) (c4) 2) (c4) 2) (c4) 3) (c4) 3) (c4) 4) (c4) 4) (c4) 5) (c4) 6)	g Roots (C3) soils (C6) _X RR A) Wetland Hyc	Secondary Indicators (2 or more requestance Water-Stained Leaves (B9) (MLRA 4A and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

Project/Site:	Tillamook - Southern Flow (	Corridor	City/County	: Tillamook			Sampling Da	ate:	9/15/2014
Applicant/Owner:	Tillamook County					State: OR	Sampling Po	oint: P-23	
Investigator(s):	Greta Presley and Shane La	atimer	Sec	tion, Townsh	ip, Range:	1S 10W Sec 22			
Landform (hillslop	e, terrace, etc.): diked	floodplain	 Loca	I relief (conca	ave, convex	, none): convex		Slope (%):	0-1%
Subregion (LRR):	Columbia Plateau (LRR B)	Lat	<del></del> :		45.47015	Long:			NAD27
Soil Map Unit Nar	ne: (102A) Fluvaquents-	-Histosols complex, d	iked			NWI Classification:			
Are climatic / hydi	ologic conditions on the site	typical for this time of	year?	Yes 2	X	No	(If no, explain i	n Remarks)	)
Are Vegetation	, Soil X, or Hy	ydrology	significantly	disturbed?	Are "N	ormal Circumstances	s" Present?	Yes	No X
Are Vegetation	, Soil, or Hy					ed, explain any answ			<u> </u>
SUMMARY O	FINDINGS – Attach s	site map showing	g sampling	point loca	ations, tra	ansects, importa	ant features,	etc.	
Hydrophytic Vege	tation Present? Yes X	( No							
Hydric Soil Prese	_			ampled Area	a	Yes X	No		
Wetland Hydrolog	<del>-</del>		_ within	a Wetland?		<del>//</del>			
	st end of the western most dr		-						
VEGETATION									
		Abaaluta	Dominant	Indicator	Dominan	ce Test worksheet:			
		Absolute % Cover	Dominant Species?	Indicator Status?					
Tree Stratum (U	Ise scientific names.)	70 00101	_ <del></del>			f Dominant Species DBL, FACW, or FAC			
1			_				·	1	_(A)
2			_			ber of Dominant cross All Strata:			
3				<del></del>	Openies A	CIOSS All Otlata.		1	_(B)
4	т.	atal Carran	_			Dominant Species		200/	(A /D)
	10	otal Cover:	=		Are OBL,	FACW, or FAC:	1	00%	_(A/B)
Shrub Stratum					Prevalenc	e Index Workshee	<u> </u>		
1.						al % Cover of:		ply by:	
2.				- (	OBL spec			0	-
3.					FACW spe	-	x2 =	0	•
4.					FAC spec	ies		0	•
5.					FACU spe	cies	x4 =	0	<u>.</u>
	To	otal Cover:	_		UPL speci	es	x5 =	0	<u>-</u>
Herb Stratum					Column To	otals: 0	(A)	0	(B)
1. Carex obnupta		100	<u> </u>	OBL	Preva	lence Index = B/A =	#DIV	<b>'0!</b>	=
2			_						
3			_		Hydrophy	rtic Vegetation Indi			
4					X	Dominance Test is			
5			_		#DIV/0!	Prevalence Index is	s ≤3.0'		
6			_			Morphological Ada			g
						data in Remarks or	-	•	
8	т.					Problematic Hydro	phytic Vegetation	ın (Explain	)
Moody Vino Ct		otal Cover: 100	<u>)</u>		1,	. 6 10 12 12 12 14 14 14			
Woody Vine St					present.	s of hydric soil and w	etiand nydrolog	y must be	
2.				_ (					
Z		otal Cover: 100	<u> </u>	<del></del>	Hydrophy				
% Ba	re Ground in Herb Stratum		_	n	Vegetatio Present?	n	Yes X	No	
	proom located within 30 feet of			atland	r resent:		1 C3 <u>/</u>		
Remarks. Scots i	oroom located within 30 leet t	or triis piot, but rooted	outside of we	ellanu.					

Profile Des	cription: (Describe	to the depth ne	eded to doc	ument t	he indicate	or or c	onfirm the absen	ce of indicators.)
Depth	Matrix		Red	ox Featı	ures		_	
(inches)	Color (moist)	% Colo	r (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	10YR 2/2	100					sand	some gravels
							_	
		<b>.</b>					_	
		<u> </u>						
<sup>1</sup> Type: C=0	Concentration, D=Dep	oletion, RM=Redu	uced Matrix,	CS=Cov	ered or Co	ated S	and Grains. <sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix.
Hydric Soi	I Indicators: (Applic	cable to all I RRs	s unless oth	erwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
	sol (A1)	ouble to all Little	Sandy Re				maioatoro for	2 cm Muck (A10) (LRR B)
	Epipedon (A2)		Stripped		-			Red Parent Material (TF2)
	Histic (A3)				neral (F1) (	excep	t MLRA 1) X	Other (Explain in Remarks)
	gen Sulfide (A4)	_	_	•	atrix (F2)	Сисор	····=·····/ <u>/··</u>	
	ted Below Dark Surfa		Depleted	•	` '			
	Dark Surface (A12)		Redox Da				<sup>3</sup> Indicators	s of hydrophytic vegetation and
	Muck Mineral (S1)	_			urface (F7)			I hydrology must be present,
	gleyed Matrix (S4)	_	Redox Do					s disturbed or problematic.
	Layer (if present):				- ( - /			P
Type:	, ,							
Depth (inch	es):					Н	ydric Soil Present	t? Yes X No
	blem area - dredge p	ile Soils are dist	irhed this ar	ea is lov	ver/less fill			
 	biem area - areage p	inc. cons are dist	arbea, triis ar	Ca 13 101	VCI/IC33 IIII	With 30		
HYDROLOG								
•	ydrology Indicators							
Primary Ind	licators (any one indic	cator is sufficient)						Secondary Indicators (2 or more required)
Surfac	ce Water (A1)	_	Water-St	ained Le	eaves (B9)	(excep	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
High V	Water Table (A2)			A and	<b>4B</b> )			4A and 4B)
Satura	ation (A3)		Salt Crus	t (B11)				Drainage Patterns (B10)
	Marks (B1)	_			ates (B13)			Dry-Season Water Table (C2)
Sedim	ent Deposits (B2)				Odor (C1)			Saturation Visible on Aerial Imagery (C9)
Drift D	eposits (B3)		Oxidized	Rhizosp	heres alon	g Livin	g Roots (C3)	Geomorphic Position (D2)
Algal I	Mat or Crust (B4)				uced Iron (			Shallow Aquitard (D3)
	eposits (B5)	_			uction in Plo		` '	FAC-Neutral Test (D5)
	ce Soil Cracks (B6)	<u>X</u>			sed Plants (	(D1) ( <b>L</b>	RR A)	Raised Ant Mounds (D6) (LRR A)
Water	-Stained Leaves (B9)	) <u>X</u>	Other (E)	cplain in	Remarks)			Frost-Heave Hummocks (D7)
Spars	ely Vegetated Conca	ve Surface (B8)						
Field Obse		N. V	5 "	<i></i>				
Water table	ater Present? Yes Present? Yes			(inches): (inches):				
Saturation I				(inches):			Wetland Hydro	logy Present? Yes X No
	apillary fringe)			(,			,	<u> </u>
Describe Rec	orded Data (stream g	gauge, monitoring	well, aerial p	ohotos, ¡	previous ins	spectio	ns), if available:	
Remarks: Soi	ls/sand moist despite	long absence of	nrecinitation	/late cur	nmer timing	n Soot	's broom pearby is	stressed and dving
remains. 301	is/sand moist despite	, long absence of	Precipitation	nate Sul	mner unning	y. 000l	3 DIOUTH HEALDY IS	oncooca and aying.

Project/Site: Tillamook - Southern Flow Corridor		Citv/Countv	: Tillamook				Samplin	g Date:		9/15/2014
Applicant/Owner: Tillamook County		. , ,			State: OR		•	g Point:		
investigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	nip, Range:	1S 10W Sec			<b>J</b>		
Landform (hillslope, terrace, etc.): diked floodplain		_		-	none): conca			Slope	e (%):	0-1%
Subregion (LRR): NW Forests and Coasts (LRR A)		-	`		Long:					NAD27
Soil Map Unit Name: (102A) Fluvaquents-Histosols					NWI Classifica					-
Are climatic / hydrologic conditions on the site typical for			Yes			-	(If no, expl	ain in Re	marks	)
Are Vegetation, Soil, or Hydrology	-		_							
Are Vegetation, Soil, or Hydrology					d, explain an					
<del></del>					·			·		
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	ations, tra	nsects, im	porta	nt featur	es, etc	•	
Hydrophytic Vegetation Present? YesNo	X	lo the C	amalad Aras	_						
Hydric Soil Present? YesNo	X		ampled Area a Wetland?	d	Yes		No X		_	
Wetland Hydrology Present? YesNo	X		u 11011u11u1							
Approximately 12 feet south of P-10; 10 feet west of dirt r	oad.	<u> </u>								
, , , , , , , , , , , , , , , , , , , ,										
VEGETATION										
		5		Daminana	- T+	-11-				
	Absolute % Cover	Dominant Species?	Indicator Status?		e Test works		Th at			
Tree Stratum (Use scientific names.)	70 00701	Орсскоз:	Otatus:		Dominant Sp ACW, or FAC		ınat			
1				AIC OBL, I	ACVV, OI I AC	<b>.</b>		1		_(A)
2					ber of Domina					
3				Species A	cross All Strat	ia:		4		_(B)
4				Percent of	Dominant Sp	ecies T	hat			
Total Cover:				Are OBL, F	FACW, or FAC	C:		25%		_(A/B)
Shrub Stratum				Provalence	e Index Worl	kshoot				
1. Cytisus scoparius	30	Y	UPL		I % Cover of:			Multiply b		
o				OBL speci			x1 =	5		-
3				· ·	cies		x2 =			_
o				FAC speci			x2 = x3 =			_
t				FAC speci			x3 = x4 =	320		_
o Total Cover:	30			UPL specie			x4 = x5 =	175		_
				Column To			-	620		- (D)
<u>Herb Stratum</u> 1. <i>Tanacetum vulgare</i>	60	Υ	FACU		ence Index =		(A)	3.9		_(B)
2. Holcus lanatus	<u>60</u>	Y	FAC	Fieva	ence muex -	D/A		3.9		=
		Y	FACU	Hydronby	tio Vocatatio	n India	otoro			
3. Anthoxanthum odoratum			UPL	Hydropny	tic Vegetatio					
4. Epilobium brachycarpum	5	<u>n</u>	OBL		Dominance   Prevalence					
5. Carex obnupta	5	<u>n</u>	OBL							
j	·				Morphologica					g
<u></u>			<del></del>		data in Rema				,	
B			<del></del>		Problematic	Hydrop	hytic Vege	etation' (E	Explain	)
Total Cover:	110									
Woody Vine Stratum					of hydric soil	and we	etland hydr	ology mu	ıst be	
1				present.						
2				Hydrophy	tic					
Total Cover:				Vegetation	า					
% Bare Ground in Herb Stratum%	Cover of Bio	otic Crust	0	Present?			Yes	No	Х	
Remarks:										

Profile De	scription: (Describ	e to the dep	h needed to do	cument	the indicate	or or co	onfirm the absence	ee of indicators.)
Depth	Matrix		Re	dox Feat			•	
(inches)	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	10YR 3/3	100					sand, gravels	dredge pile
							·	
							·	
							<u> </u>	
							·	
<sup>1</sup> Type: C=	Concentration, D=De	epletion, RM=	Reduced Matrix,	CS=Cov	vered or Coa	ated Sa	nd Grains. <sup>2</sup> Locat	ion: PL=Pore Lining, M=Matrix.
Hydric So	il Indicators: (Appl	icable to all	LRRs, unless of	herwise	noted.)		Indicators for F	Problematic Hydric Soils <sup>3</sup> :
-	sol (A1)			Redox (S	-			2 cm Muck (A10) ( <b>LRR B</b> )
Histic	Epipedon (A2)			l Matrix (				Red Parent Material (TF2)
Black	Histic (A3)		Loamy I	Mucky M	ineral (F1) (	except	MLRA 1)	Other (Explain in Remarks)
Hydro	ogen Sulfide (A4)		Loamy (	Gleyed M	latrix (F2)			Very Shallow Dark Surface (TF12)
Deple	eted Below Dark Sur	face (A11)	Deplete	d Matrix	(F3)			
Thick	Dark Surface (A12)		Redox [	Dark Surf	ace (F6)		<sup>3</sup> Indicators	of hydrophytic vegetation and
Sand	y Muck Mineral (S1)		Deplete	d Dark S	urface (F7)		wetland	hydrology must be present,
Sand	y gleyed Matrix (S4)		Redox [	Depression	ons (F8)		unless	disturbed or problematic.
Restrictive	e Layer (if present)							
Type:								
Depth (incl	nes):		_			Hy	dric Soil Present	? Yes No X
	pland dredge pile.							
HYDROL OC	·v							
HYDROLOG Wotland H	lydrology Indicator	e:						
	dicators (any one inc		cient)					Secondary Indicators (2 or more required)
	ce Water (A1)	ilcator is sum		tained L	eaves (B9) (	excent		Water-Stained Leaves (B9) (MLRA 1, 2,
	Water Table (A2)			4A and		слосрі		4A and 4B)
	ation (A3)			st (B11)	7 <b>5</b> )			Drainage Patterns (B10)
	r Marks (B1)				rates (B13)			Dry-Season Water Table (C2)
	nent Deposits (B2)				e Odor (C1)			Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)					a Livino	Roots (C3)	Geomorphic Position (D2)
	Mat or Crust (B4)				luced Iron (0	-		Shallow Aquitard (D3)
	Deposits (B5)				uction in Plo		oils (C6)	FAC-Neutral Test (D5)
	ce Soil Cracks (B6)				sed Plants (		` '	Raised Ant Mounds (D6) (LRR A)
	r-Stained Leaves (B	9)			Remarks)	, ,	· —	Frost-Heave Hummocks (D7)
	sely Vegetated Conc	-			,			. ,
Field Obse								
Surface Wa	ater Present? Ye	es N		(inches)				
Water table				(inches)			Matlemal Hardwell	and Brassetta Vac No V
Saturation (includes of	Present? Your apillary fringe)	es N	lo X Depth	(inches)	. <u>&gt; 10"</u>	_	Wetland Hydrol	ogy Present? Yes No X
_ `	corded Data (stream	gauge, moni	oring well, aerial	photos,	previous ins	pection	ns), if available:	
				. ,	-	-	•	
Remarks: Up	oland dredge pile dor	ninated by So	otch broom.					

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook			Sampling D	ate:	9/16/2014
•	Tillamook County			, ,			State: OR	Sampling P		
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop	•	diked floodplain		_		-	, none): convex		Slope (%):	0-1%
` .	Columbia Plateau (I		Lat:	_	`		Long:		-	NAD27
Soil Map Unit Nan		aquents-Histosols	_				NWI Classification:		-	
•	ologic conditions on	•			Yes 2		No	(If no, explain	in Remarks	)
Are Vegetation	, Soil				_		ormal Circumstance	-		
Are Vegetation		, or Hydrology	-				ed, explain any ansv			
3				, ,		(	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		- /	
SUMMARY OF	FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant features	, etc.	
Hydrophytic Vege	tation Present?	Yes X N	0							
Hydric Soil Preser		Yes X N	0		ampled Area	1	Yes X	No		
Wetland Hydrolog	y Present?	Yes X N	0	within	a Wetland?			<del></del>		
	eximately 50 feet sout									
VEGETATION										
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet:			
Tree Stratum (I	lse scientific names.)		% Cover	Species?	Status?	Number of	f Dominant Species			
Picea sitchensi	•		60	Y	FAC		DBL, FACW, or FAC	:	4	(A)
2.	<u> </u>					Total Num	ber of Dominant	-	-	_(/ (/
3							cross All Strata:		4	(B)
4.						Porcont of	Dominant Species			_(-/
_		Total Cover	: 60		-		FACW, or FAC:		00%	(A/B)
										_
Shrub Stratum						Prevalenc	e Index Workshee	t:		
1. Salix hookeran	а		70	Y	FACW	Tota	al % Cover of:	Mul	tiply by:	_
2. Rubus spectab	ilis		25	Y	FAC	OBL spec	ies	x1 =	0	=
3. Lonicera involu	crata		10	N	FAC	FACW spe	ecies	x2 =	0	_
4						FAC spec		_x3 =	0	_
5				-	-	FACU spe		_x4 =	0	=
		Total Cover	: 105			UPL speci		x5 =	0	
Herb Stratum				.,	ODI	Column To		(A)	0	_(B)
1. Carex obnupta			90	Y	OBL	Preva	lence Index = B/A =	#DIV	//0!	=
2. 3.						I leader ale				
3. 4.					· <del></del>		tic Vegetation Indi Dominance Test is			
5.					- ——	X	Prevalence Index i			
6.					· ———	#DIV/U:				
7					·		Morphological Ada data in Remarks or			g
8.							Problematic Hydro	•	,	)
o		Total Cover	: 90		· <del></del>		1 Toblematic Hydro	priytic vegetati	on (Explain	)
Woody Vine St	ratum_	Total Gover				<sup>1</sup> Indicators	s of hydric soil and w	etland hydrolog	gy must be	
						present.				
2						Hydrophy				
۵, ۵		Total Cover			•	Vegetatio	n			
	re Ground in Herb St	ratum <u> </u>	Cover of Bio	Duc Crust	0	Present?		Yes X	No	
Remarks:										

Profile Des	scription: (Describe	to the de	epth needed to c	locument	the indic	ator or	confirm the abser	nce of indicators.)
Depth	Matrix		F	Redox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc	Texture	Remarks
1-0								Organics
0-8	2.5Y 3/2	90	10YR 3/6	10		M	SiL	
8-16	2.5Y 3/1	60	7.5YR 3/4	35		<u>M</u>	SiCI	
			5YR 3/4	5	С	M		
					-			· -
<sup>1</sup> Type: C=0	Concentration, D=Dep	letion, RI	M=Reduced Matr	ix, CS=Co	vered or C	Coated	Sand Grains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soi	il Indicators: (Application	able to a	II LRRs, unless	otherwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
	sol (A1)			Redox (S	•			2 cm Muck (A10) ( <b>LRR B</b> )
	Epipedon (A2)			ed Matrix (	,			Red Parent Material (TF2)
	Histic (A3)				•		ept MLRA 1)	Other (Explain in Remarks)
	ogen Sulfide (A4)			y Gleyed M	•	2)		
	eted Below Dark Surfac	ce (A11)		ted Matrix	` '		3	
	Dark Surface (A12)			Dark Surf	` '	<del>-</del> \		rs of hydrophytic vegetation and
	y Muck Mineral (S1)			ted Dark S	-	7)		d hydrology must be present,
	y gleyed Matrix (S4)		Redox	Depression	ons (F8)		unles	ss disturbed or problematic.
	e Layer (if present):							
Type: Depth (inch	JOS).						Hydric Soil Preser	nt? Yes X No
Remarks:	<u> </u>						Tryunc 3011 Fresei	It: 165 <u>/ 140                              </u>
HYDROLOG								
	lydrology Indicators:							
	dicators (any one indicators	ator is su						Secondary Indicators (2 or more required)
	ce Water (A1)			-Stained L		9) ( <b>exc</b> e	ept MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
	Water Table (A2)		•	2, 4A and	<b>4B</b> )			4A and 4B)
	ation (A3)			rust (B11)	, (D.)	<b>0</b> \	<u>X</u>	Drainage Patterns (B10)
	r Marks (B1)			ic Inverteb	•			Dry-Season Water Table (C2)
	nent Deposits (B2)			gen Sulfide				Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)				-	_	ing Roots (C3)	Geomorphic Position (D2)
	Mat or Crust (B4)			nce of Rec		٠, ,	Soils (C6)	Shallow Aquitard (D3)
	Deposits (B5)			nt Iron Rea ed or Stres			Soils (C6)	FAC-Neutral Test (D5)
	ce Soil Cracks (B6) r-Stained Leaves (B9)						(LKK A)	Raised Ant Mounds (D6) (LRR A)
	sely Vegetated Concav	e Surfac		(Explain in	i Kemarks	5)		Frost-Heave Hummocks (D7)
Field Obse		Juliac	C (DO)					
	ater Present? Yes		No X Dep	oth (inches)	):			
Water table				oth (inches)				
Saturation			No X Dep	oth (inches)	): >16"		Wetland Hydro	ology Present? Yes X No
	apillary fringe) corded Data (stream ga	auge mo	nitoring well ser	ial nhotos	nrevious	inspect	ions) if available.	
Pescine IVE	Jorden Dala (Juleani ye	auge, IIIC	antoning well, ael	iai priotos,	PICVIOUS	πορσοι	.iorioj, ii availabie.	
Remarks: Ev	idence of flow							

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook				Samplii	ng Date:		9/16/2014
Applicant/Owner:	Tillamook County						State:	OR	Samplii	ng Point:	P-26	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10V	V Sec 23	_			
Landform (hillslop	•	diked floodplain		_	I relief (conca	-				Slope	e (%):	0-1%
` .	Columbia Plateau (		Lat:	_	`							NAD27
Soil Map Unit Nar		aquents-Histosols	_			,		ssification:				
•	ologic conditions on	•			Yes				(If no, exp	lain in Re	marks)	)
•	, Soil		•		_	,		rcumstance				
Are Vegetation		, or Hydrology						in any ansv				
, no regendue.	,			natarany pr		(	ou, onpio					
SUMMARY OF	FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansect	s, importa	ant featu	res, etc	•	
Hydrophytic Vege	tation Present?	Yes X No	0									
Hydric Soil Presei		Yes No	о X		ampled Area	a	Yes		No X			
Wetland Hydrolog	y Present?		<u> X</u>	within	a Wetland?							
	oximately 15 feet north	hweet of P.25, at I	evee base									
VEGETATION												
			Absolute	Dominant	Indicator	Dominan	re Test v	worksheet:				
T 01 1 11			% Cover	Species?	Status?			ant Species				
,	Ise scientific names.)	)						CW, or FAC	:			
1. Picea sitchensi	S		90	Y	FAC					4		_(A)
2					<del></del>	Total Num Species A				_		<i>(</i> = )
3.					<del></del>	Opecies A	CIUSS AII	oliala.		5		_(B)
4					· <u></u>			int Species	That			(A (D)
		Total Cover	:90			Are OBL,	FACW, c	or FAC:		80%		_(A/B)
Shrub Stratum					E 4 0) 4 /			Workshee				
1. Salix hookeran			40	<u>Y</u>	FACW	-	al % Cov		-	Multiply b	y:	-
2. Rubus spectab	ilis		10	Y	FAC	OBL spec			_x1 =	0		-
3					<del></del>	FACW spe			_x2 =	0		-
4						FAC spec			_x3 =	0		=
5						FACU spe			_x4 =	0		=
LL to Other to an		Total Cover	:50			UPL speci			_x5 =	0		- (D)
Herb Stratum			400	V	FACW	Column To		0	_(A)	0		_(B)
1. Phalaris arundi	пасеа		100	Y	PACVV	Preva	ience inc	dex = B/A =		#DIV/0!		-
2. 3.					·	Lludranh	tio Voca	etation Indi	ootoro:			
3. 4.					. ——	X	_	ance Test is				
5.					. ——			ence Index i				
6.					. ——							
7.					. ——			ological Ada Remarks o				g
8.					. ——			natic Hydro				
0		Total Cover	: 100		· ——		FIODICI	nauc riyuro	priytic vegi	cialion (E	xpiairi	,
Moody Vino St	ratum	Total Cover	. 100			1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Woody Vine St	<u>ratum</u>		-	V	NOL	present.	s of nyari	c soil and w	etiana nya	rology mu	st be	
1. Hedera helix				X	INOL	present.						
2		Total Cayon	. 245		<del></del>	Hydrophy						
0/ Do	ro Cround in Horb C	Total Cover	: <u>245</u> Cover of Bio	atia Cauat	0	Vegetatio Present?	n		Vac V	Na		
	re Ground in Herb S	%	Cover or Bio	olic Crust	0	Present?			Yes X	No		
Remarks:												

Profile De	scription: (Describe	to the de	epth needed to do	cument	the indic	ator or	confirm the abs	ence of indicators.)	
Depth	Matrix		•	dox Feat					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc		Remarks	
0-6	10YR 2/2	100				<del></del>	SiL	<u> </u>	
6-14	10YR 2/2		7.5YR 2.5/3	5	<u>C</u>	<u>M</u>	SiL	<u> </u>	
14-18	10YR 3/2		7.5YR 3/4	10	С	<u>M</u>	SiCI		
-									
							_	_	
								<del>_</del>	
								<del></del>	
<sup>1</sup> Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix	CS=Cov	vered or C	Coated	Sand Grains. <sup>2</sup> Lo	ocation: PL=Pore Lining, M=Matrix.	
Hydric So	il Indicators: (Applic	able to a					Indicators f	or Problematic Hydric Soils <sup>3</sup> :	
	sol (A1)			Redox (S	•		_	2 cm Muck (A10) ( <b>LRR B</b> )	
	Epipedon (A2)			d Matrix (				Red Parent Material (TF2)	
	( Histic (A3)			-			pt MLRA 1)	Other (Explain in Remarks)	
	ogen Sulfide (A4)	(8.4.4)	-	=	latrix (F2	2)			
	eted Below Dark Surfa	ce (A11)		ed Matrix	` '		31	to an of hardenshalls are noted to a seed	
	Dark Surface (A12)			Dark Surf		7)		tors of hydrophytic vegetation and	
	ly Muck Mineral (S1)				urface (F	1)		and hydrology must be present,	
	ly gleyed Matrix (S4) e Layer (if present):		Redox	Depression	ons (F8)		uni	less disturbed or problematic.	
Type:	, , ,								
Depth (incl	hes):						Hydric Soil Pres	ent? Yes No	X
Remarks:	,								
HYDROLOG	SY								
Wetland H	lydrology Indicators:	i							
Primary Inc	dicators (any one indic	ator is su	ıfficient)					Secondary Indicators (2 or more requ	ired)
Surfa	ice Water (A1)		Water-	Stained L	eaves (B9	9) ( <b>exc</b> e	ept MLRA	Water-Stained Leaves (B9) (MLRA	1, 2,
High	Water Table (A2)		1, 2	, 4A and	4B)			4A and 4B)	
Satur	ration (A3)		Salt Cr	ust (B11)			_	Drainage Patterns (B10)	
Wate	er Marks (B1)		Aquatio	Inverteb	rates (B1	3)	_	Dry-Season Water Table (C2)	
Sedir	ment Deposits (B2)		Hydrog	en Sulfide	e Odor (C	21)	_	Saturation Visible on Aerial Imagery	/ (C9)
Drift I	Deposits (B3)		Oxidize	d Rhizos	pheres al	ong Livi	ng Roots (C3)	Geomorphic Position (D2)	
Algal	Mat or Crust (B4)		Presen	ce of Rec	luced Iron	า (C4)	_	Shallow Aquitard (D3)	
Iron [	Deposits (B5)						Soils (C6)	FAC-Neutral Test (D5)	
	ice Soil Cracks (B6)		Stunted	d or Stres	sed Plant	ts (D1) (	LRR A)	Raised Ant Mounds (D6) (LRR A)	
	er-Stained Leaves (B9)			Explain ir	Remarks	s)	_	Frost-Heave Hummocks (D7)	
	sely Vegetated Conca	ve Surfac	e (B8)						
	ervations: 'ater Present? Yes	:	No X Dept	h (inches)	١٠				
	e Present? Yes			h (inches)					
Saturation		; <u> </u>		h (inches)			Wetland Hyd	drology Present? YesNo	Χ
	capillary fringe)		antina di a	l alacter			in a life and the life		
Describe Re	corded Data (stream g	auge, mo	onitoring well, aeria	ıı pnotos,	previous	ınspect	ions), if available:		
Remarks:									

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook			Sampling D	ate:	9/16/2014
Applicant/Owner:		THE COMMON		only odding.	Tillamook		State: OR	Sampling P		
•	Greta Presley and S	Shane Latimer		Sect	ion, Townsh	nip, Range:	1S 10W Sec 23			
	e, terrace, etc.):			_			x, none): flat		Slope (%):	0-1%
	NW Forests and Co		Lat:				Long:			: NAD27
Soil Map Unit Nam	ne: (102A) Fluva	aquents-Histosols o	_				NWI Classification:		•	
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks	)
Are Vegetation	, Soil X	_, or Hydrology		significantly	disturbed?	Are "N	lormal Circumstance	s" Present?	Yes X	No
	, Soil						ed, explain any ansv			
SUMMARY OF	FINDINGS - A	tach site map	showing	sampling	point loca	ations, tr	ansects, importa	ant features	, etc.	
Hydrophytic Veget				Is the Sa	ampled Area	а				
Hydric Soil Presen					a Wetland?		Yes X	No		
Wetland Hydrology	/ Present?	Yes X No								
VEGETATION										
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet:			
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	Number o	of Dominant Species	That		
 1.						Are OBL,	FACW, or FAC:		1	(A)
						Total Nun	nber of Dominant			
3.						Species A	Across All Strata:		1	(B)
4					·	Percent of	of Dominant Species	That		
		Total Cover:				Are OBL,	FACW, or FAC:	1	00%	_(A/B)
Shrub Stratum						Prevalen	ce Index Workshee	t:		
1.							al % Cover of:		iply by:	
						OBL spec		x1 =	0	_
						FACW sp	ecies	x2 =	0	=
4.						FAC spec	cies	x3 =	0	<u>-</u>
5						FACU sp	ecies	x4 =	0	_
		Total Cover:				UPL spec	cies	x5 =	0	_
Herb Stratum						Column T	otals: 0	(A)	0	_(B)
1. <u>Phalaris arundir</u> 2			100	Y	FACW	Preva	alence Index = B/A =	#DIV	/0!	_
					· <del></del>	Hydroph	ytic Vegetation Indi	cators:		
						Х	Dominance Test is	>50%		
						#DIV/0!	Prevalence Index i	s ≤3.0 <sup>1</sup>		
					·		. Morphological Ada	ptation <sup>1</sup> (Provid	de supportin	ıg
							data in Remarks o	r on a separate	sheet)	
							Problematic Hydro	phytic Vegetati	on¹ (Explain	1)
		Total Cover:	100							
Woody Vine Str	<u>-</u>						s of hydric soil and w	etland hydrolog	gy must be	
						present.				
2						Hydroph	•			
0/ Da	on Consumed in I lands Co	Total Cover:		atia Omiat	0	Vegetatio		Waa W	NI -	
	e Ground in Herb St	tratum%	Cover of Bio	otic Crust	0	Present?	'	Yes X	No	
Remarks: Open Ph	IMIN HOLU									

Inches   Color (moist)	Depth	Matr	ix	R	edox Feat	ures						
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix.  Rydric Soil Indicators: (Applicable to all LRRs, unloss otherwise noted.)  Histoso (A1)  Histoso (A1)  Histoso (A1)  Sandy Redox (S5)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Matrix (F2)  Depleted Matrix (F2)  Thick Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A11)  Depleted Dark Surface (F6)  *Indicators of hydrophytic vegetation and wetland hydrology must be present,  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  *Indicators of hydrophytic vegetation and wetland hydrology must be present,  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  *Indicators of hydrophytic vegetation and wetland hydrology must be present,  Sandy eyed Matrix (S4)  Redox Depressions (F8)  unless disturbed or problematic.  Restrictive Layer (if present):  **Type:**    Phydric Soil Present?**    Phydric Soil Present?**   Phydric Soil Present?**   Phydric Soil Present?**   Phydric Soil Present?**   Phydric Soil Present (Patrix (P1)   Water-Stained Leaves (B9) (MLRA 1, 4A and 4B)   A and 4B    A and 4B    Drainage Patterns (E10)   Drainage Pat	inches)	Color (mois	t) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture			Remarks	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix.	-8	10YR 2/2	100			· —— -		SiL		dense PHAR	roots	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Cotter (Explain in Remarks)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F7)  Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Setrictive Layer (if present):  ype:	-16	10YR 2/2	100					sand/grave	ls			
ydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic (A3) Loarny Mucky Mineral (F1) (except MLRA 1) Yes yes a company of the						· —— -						
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Cotter (Explain in Remarks)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F7)  Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Setrictive Layer (if present):  ype:												
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Cotter (Explain in Remarks)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F7)  Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Setrictive Layer (if present):  ype:												
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Cotter (Explain in Remarks)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F7)  Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Setrictive Layer (if present):  ype:												
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B)  Histosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Cotter (Explain in Remarks)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F6)  Sandy Muck Mineral (S1) Depleted Dark Surface (F7)  Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Setrictive Layer (if present):  ype:												
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) X Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy gleyed Matrix (S4) Redox Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic.  setrictive Layer (if present): ype: peth (inches):		oncentration, D	=Depletion, R	M=Reduced Matri	x, CS=Co	vered or Co	ated Sar	nd Grains. <sup>2</sup> I	 ocation	: PL=Pore Li	ning, M=Matri	X.
Histic Epipedon (A2)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy Bleyed Matrix (S4)  Redox Dark Surface (F6)  Pepleted Below Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Bleyed Matrix (S4)  Redox Depressions (F8)  Unless disturbed or problematic.  Pepleted Dark Surface (F6)  Wetland Hydrology must be present,  unless disturbed or problematic.  Pepleted Dark Surface (F6)  Wetland Hydrology must be present,  unless disturbed or problematic.  Pepleted Dark Surface (F6)  Wetland Hydrology Indicators:  Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  1, 2, 4A and 4B)  Saturation (A3)  Sati Crust (B11)  Water Marks (B1)  Water Marks (B1)  Water Marks (B1)  Water Marks (B2)  Priff Deposits (B2)  Priff Deposits (B2)  Driff Deposits (B2)  Driff Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Sutneted or no Reduction in Plowed Soils (C6)  Sufface Soil Cracks (B6)  Sutneted or no Reduction in Plowed Soils (C6)  Sufface Soil Cracks (B6)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No X Depth (inches): ≥16°  Water Deposits (P1)  Wetland Hydrology Present? Yes No X Depth (inches): ≥16°  Wetland Hydrology Present? Yes No X Depth (inches): ≥16°  Wetland Hydrology Present? Yes No X Depth (inches): ≥16°  Wetland Hydrology Present? Yes No X Depth (inches): ≥16°  Wetland Hydrology Present? Yes No Depth (i	lydric Soil	Indicators: (A	pplicable to	all LRRs, unless	otherwise	noted.)		Indicators	for Pro	blematic Hyd	dric Soils³:	
Black Histic (A3)	Histoso	ol (A1)		Sandy	Redox (S	5)			2 (	cm Muck (A10	) (LRR B)	
Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Sandy gleyed Matrix (S4)  Redox Depressions (F8)  Redox Depressions (F8)  Wetland hydrology must be present, unless disturbed or problematic.  Briticity Layer (if present):  ye: epth (inches):  Inarks: Soils altered - within dredge pile.  BROLOGY  Petland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Dyrift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Fresence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface (B3)  Water Creation in Plowed Soils (C6)  Surface (B3)  Frest-Heave Hummocks (D7)  Sprayel Vegetated Concave Surface (B8)  Field Observations: Vest Depth (inches): 167  Ves X  No  No  No  Water All (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Surface	Histic E	Epipedon (A2)		Strippe	ed Matrix (	(S6)			Re	ed Parent Mat	erial (TF2)	
Depleted Below Dark Surface (A11)	Black H	Histic (A3)		Loamy	Mucky M	ineral (F1) (	except l	MLRA 1)	X Ot	her (Explain i	n Remarks)	
Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Setrictive Layer (if present):  ype:	Hydrog	en Sulfide (A4)		Loamy	Gleyed N	Matrix (F2)			Ve	ry Shallow Da	ark Surface (T	F12)
Sandy Muck Mineral (S1)	Deplete	ed Below Dark S	Surface (A11)	Deplet	ed Matrix	(F3)						
Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  sestrictive Layer (if present):  ype: epith (inches):	Thick D	oark Surface (A	12)	Redox	Dark Sur	face (F6)		<sup>3</sup> Indic	ators of	hydrophytic v	egetation and	
estrictive Layer (if present):  ype: epth (inches):	Sandy l	Muck Mineral (	S1)	Deplet	ed Dark S	urface (F7)		we	land hy	drology must	be present,	
ppe:epth (inches):	Sandy (	gleyed Matrix (S	S4)	Redox	Depressi	ons (F8)		u	nless di	sturbed or pro	blematic.	
PROLOGY  Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Drift Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Sparsely Pesent? Surface Water Marks (B1) Audit (Inches): Algal Mat or Crust (B4) Algal Mater (B1) Algal Mater	estrictive I	Layer (if prese	nt):									
PROLOGY  Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Drift Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Sparsely Pesent? Surface Water Marks (B1) Audit (Inches): Algal Mat or Crust (B4) Algal Mater (B1) Algal Mater	·/po:											
DROLOGY   Vetland Hydrology Indicators: rrimary Indicators (any one indicator is sufficient)   Secondary Indicators (2 or more require water (A1)   Water-Stained Leaves (B9) (except MLRA   Water-Stained Leaves (B9) (MLRA 1, High Water Table (A2)   1, 2, 4A and 4B)   4A and 4B)   Aquatic Invertebrates (B13)   Dry-Season Water Table (C2)   Sediment Deposits (B1)   Aquatic Invertebrates (B13)   Dry-Season Water Table (C2)   Sediment Deposits (B2)   Hydrogen Sulfide Odor (C1)   X Saturation Visible on Aerial Imagery (C Drift Deposits (B3)   Oxidized Rhizospheres along Living Roots (C3)   Geomorphic Position (D2)   Algal Mat or Crust (B4)   Presence of Reduced Iron (C4)   Shallow Aquitard (D3)   Iron Deposits (B5)   Recent Iron Reduction in Plowed Soils (C6)   X FAC-Neutral Test (D5)   Surface Soil Cracks (B6)   Stunted or Stressed Plants (D1) (LRR A)   Raised Ant Mounds (D6) (LRR A)   Water-Stained Leaves (B9)   Other (Explain in Remarks)   Frost-Heave Hummocks (D7)   Sparsely Vegetated Concave Surface (B8)   Depth (inches): Vater table Present? Yes   No X Depth (inches): Vater	vpe.											
Arimary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Aquatic Invertebrates (B13)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Frost-Heave Hummocks (D7)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No X Depth (inches): 16"  Wetland Hydrology Present? Yes X No notludes capillary fringe)  Scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	epth (inche		n dredge pile.				Нус	dric Soil Pre	sent?	Y	es X	No
Surface Water (A1)	pepth (inche marks: Soils	s altered - within					Нус	dric Soil Pre	sent?	Y	es X	No
High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Drainage Patterns (B10)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  ield Observations:  urface Water Present?  Yes  No  X  Depth (inches):  Algal Mat or Crust (B4)  Dry-Season Water Table (C2)  X  Saturation Visible on Aerial Imagery (C  Geomorphic Position (D2)  X  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Suntade or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  Depth (inches):  Scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	epth (inche marks: Soils DROLOGY /etland Hyd	s altered - within	tors:	ufficient)			Нус	dric Soil Pre				
Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  ield Observations:  urface Water Present?  Yes  No  X  Depth (inches):  Zore Present (D1)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  X  Saturation Visible on Aerial Imagery (C1)  Second Plants (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  ield Observations:  urface Water Present?  Yes  No  Depth (inches):  Zore Table Present?  Yes  No  Depth (inches):  Depth (inch	epth (inche narks: Soils DROLOGY /etland Hydrimary India	drology Indica	tors:		-Stained I	eaves (B9)			Sec	ondary Indica	ators (2 or mo	re required
Water Marks (B1)	DROLOGY fetland Hydrimary Indice	drology Indicacators (any one	tors: indicator is s	Water					Sec	ondary Indica ater-Stained L	ators (2 or mo	re require
Sediment Deposits (B2)	DROLOGY  Vetland Hydrimary Indicate  Surface  High W	drology Indicacators (any one e Water (A1)	tors: indicator is s	Water-	2, 4A and				Sec W	ondary Indica ater-Stained L 4A and 4B)	ators (2 or mod Leaves (B9) ( <b>f</b>	re require
Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Frost-Heave Hummocks (D7)  Sparsely Present?  Yes  No  No  Depth (inches):  Atturation Present?  Yes  No  No  No  No  No  No  No  No  No  N	DROLOGY Vetland Hydrimary India Surface High W Saturat	drology Indica cators (any one e Water (A1) dater Table (A2)	tors: indicator is s	Water- 1, 2 Salt C	<b>2, 4A and</b> rust (B11)	<b>4B</b> )	(except		Sec Wa	ondary Indica ater-Stained L <b>4A and 4B</b> ) ainage Patter	ators (2 or mo Leaves (B9) (I	re require
Algal Mat or Crust (B4)	DROLOGY Vetland Hydrimary Indication Surface High W Saturat Water N	drology Indica cators (any one water (A1) dater Table (A2) dion (A3) Marks (B1)	tors: indicator is s	Water- 1, 2 Salt C Aquati	<b>2, 4A and</b> rust (B11) c Inverteb	<b>4B</b> ) rates (B13)	(except	MLRA	Sec Wa	ondary Indica ater-Stained L <b>4A and 4B</b> ) ainage Patter y-Season Wa	ators (2 or mode eaves (B9) ( <b>f</b> ns (B10) ter Table (C2	re require
Iron Deposits (B5)	DROLOGY Vetland Hydrimary Indicate High W Saturat Water N Sedime	drology Indica cators (any one e Water (A1) dater Table (A2) cion (A3) Marks (B1) ent Deposits (B2)	tors: indicator is s	Water- 1, 2 Salt C Aquati Hydro	<b>2, 4A and</b> rust (B11) c Inverteb gen Sulfide	<b>4B</b> ) rates (B13) e Odor (C1)	(except	MLRA	Sec W: Dr Dr X Sa	ondary Indica ater-Stained L <b>4A and 4B</b> ) ainage Patter y-Season Wa turation Visib	ators (2 or monutes).eaves (B9) (Inns (B10)).eter Table (C2).ete on Aerial In	re require
Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Stunted or Stressed Plants (D1) (LRR A)  Prost-Heave Hummocks (D7)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  Steld Observations:  Uniface Water Present? Yes No X Depth (inches):  Vater table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Solution Present? Yes No X No Yes No Yes X No Yes X No Yes Yes X No Yes Yes X No Yes Yes Yes X No Yes	DROLOGY /etland Hydrimary India Surface High W Saturat Water N Sedime Drift De	drology Indica cators (any one e Water (A1) /ater Table (A2) cition (A3) Marks (B1) ent Deposits (B2)	tors: indicator is si	Water-   1, 2   Salt C   Aquati   Hydros   Oxidiz	2, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos	<b>4B</b> ) rates (B13) e Odor (C1) pheres alor	(except	MLRA	Secondary Water Dr. Dr. Dr. X. Sa	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa aturation Visib comorphic Po	ators (2 or mon Leaves (B9) (Ins (B10) ter Table (C2) le on Aerial Insition (D2)	re require
Water-Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  ield Observations: urface Water Present? Yes No X Depth (inches): //ater table Present? Yes No X Depth (inches): >16" aturation Present? Yes No X Depth (inches): >16" wetland Hydrology Present? Yes X No notudes capillary fringe)  cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY /etland Hydrimary India Surface High W Saturat Water N Sedime Drift De Algal M	drology Indica cators (any one e Water (A1) /ater Table (A2) /ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	tors: indicator is si	Water- 1, 2 Salt C Aquati Hydro Oxidiz Preser	2, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos	rates (B13) e Odor (C1) pheres alor duced Iron (	(except	MLRA Roots (C3)	Sec Wi Dr Dr X Sa Ge	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa turation Visib comorphic Po- allow Aquitar	ntors (2 or monueaves (B9) (II ns (B10) ter Table (C2 le on Aerial Insition (D2) d (D3)	re require
ield Observations:  urface Water Present? Yes No X Depth (inches):  Vater table Present? Yes No X Depth (inches): >16"  aturation Present? Yes No X Depth (inches): >16"  wetland Hydrology Present? Yes X No No X No X Depth (inches): >16"  includes capillary fringe)  scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY Vetland Hydrimary Indic Surface High W Saturat Water M Sedime Drift De Algal M Iron De	drology Indica cators (any one e Water (A1) /ater Table (A2) cion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	tors: indicator is si	Water- 1, 2 Salt C Aquati Hydrog Oxidiz Presei Recen	2, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos nce of Rect tron Red	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Pla	(except	MLRA  Roots (C3) ils (C6)	Sec Windows Dr Dr X Sa Ge Sh X FA	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa turation Visib comorphic Po allow Aquitan C-Neutral Te	ators (2 or modeleaves (B9) (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	re require MLRA 1, 2
urface Water Present? Yes No X Depth (inches):	DROLOGY /etland Hydrimary Indica Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface	drology Indica cators (any one e Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B	tors: indicator is si  2)	Water- 1, 2 Salt C Aquati Hydrog Oxidiz Preser Recen Stunte	2, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos nce of Rec t Iron Red d or Stres	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Pla	(except	MLRA  Roots (C3) ils (C6)	Sec Windows Dr Dr X Sa Ge Sh X FA	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa turation Visib comorphic Po allow Aquitan C-Neutral Te aised Ant Mou	ators (2 or monute and the state of the stat	re require MLRA 1, 2 ) nagery (C
/ater table Present? Yes No X Depth (inches): >16" aturation Present? Yes No X Depth (inches): >16" mcludes capillary fringe) wetland Hydrology Present? Yes X No cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY /etland Hydrimary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S	drology Indica cators (any one e Water (A1) fater Table (A2) cion (A3) Marks (B1) ent Deposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B5) e Stained Leaves	tors: indicator is si  2)  66) (B9)	Water- 1, 2 Salt C Aquati Hydro Oxidiz Preser Recen Stunte Other	2, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos nce of Rec t Iron Red d or Stres	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Pla	(except	MLRA  Roots (C3) ils (C6)	Sec Windows Dr Dr X Sa Ge Sh X FA	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa turation Visib comorphic Po allow Aquitan C-Neutral Te aised Ant Mou	ators (2 or monute and the state of the stat	re required MLRA 1, 2  ) nagery (C
aturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes X No ncludes capillary fringe)  scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY  /etland Hydrimary Indic Surface High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse	drology Indica cators (any one e Water (A1) /ater Table (A2) cion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B5) e Stained Leaves	tors: indicator is si  2)  66) (B9)	Water- 1, 2 Salt C Aquati Hydro Oxidiz Preser Recen Stunte Other	2, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos nce of Rec t Iron Red d or Stres	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Pla	(except	MLRA  Roots (C3) ils (C6)	Sec Windows Dr Dr X Sa Ge Sh X FA	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa turation Visib comorphic Po allow Aquitan C-Neutral Te aised Ant Mou	ators (2 or monute and the state of the stat	re require MLRA 1, 2 ) nagery (C
ncludes capillary fringe) ccribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY  /etland Hydrimary Indice  Surface High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse ield Observariace Water Unification	drology Indica cators (any one e Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B5) e Soil Cracks (B5) de Stained Leaves by Vegetated Covations: er Present?	tors: indicator is si  2)  66) (B9) concave Surface	Water-    1, 2	2, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos nce of Rec t Iron Red d or Stres (Explain in	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Ple sed Plants of Remarks)	(except	MLRA  Roots (C3) ils (C6)	Sec Windows Dr Dr X Sa Ge Sh X FA	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa turation Visib comorphic Po allow Aquitan C-Neutral Te aised Ant Mou	ators (2 or monute and the state of the stat	re required MLRA 1, 2  ) nagery (C
scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY Vetland Hydrimary Indice Surface High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse ield Obser urface Water table i	drology Indica cators (any one e Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B5) e Soil Cracks (B5) de Stained Leaves by Vegetated Covations: er Present?	tors: indicator is si  2)  (6) (89) concave Surface Yes Yes Yes	Water-    1, 2	e, 4A and rust (B11) c Inverteb gen Sulfided Rhizos noce of Rect Iron Redd or Stres (Explain in the (inches)	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Ple sed Plants in Remarks)  The Remarks (C)  The Ple The Pl	(except	MLRA  Roots (C3) ils (C6) R A)	Sec Windows Dr Dr X Sa Ge Sh X FA	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa aturation Visib comorphic Po- allow Aquitar aC-Neutral Te aised Ant Mou	ators (2 or modeleaves (B9) (Ins. (B10)) ter Table (C2) le on Aerial Insition (D2) d (D3) st (D5) unds (D6) (LR	re required MLRA 1, 2 ) nagery (C
	DROLOGY Vetland Hyderimary Indice High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse Vater table Featuration Per	drology Indica cators (any one e Water (A1) /ater Table (A2) cition (A3) Marks (B1) ent Deposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B5) e Soil Cracks (B5) stained Leaves ly Vegetated Covations: er Present? Present?	tors: indicator is si  2)  (6) (89) concave Surface Yes Yes Yes	Water-    1, 2	e, 4A and rust (B11) c Inverteb gen Sulfided Rhizos nace of Rect Iron Redd or Stres (Explain in the (inches)	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Ple sed Plants in Remarks)  The Remarks (C)  The Ple The Pl	(except	MLRA  Roots (C3) ils (C6) R A)	Sec Windows Dr Dr X Sa Ge Sh X FA	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa aturation Visib comorphic Po- allow Aquitar aC-Neutral Te aised Ant Mou	ators (2 or modeleaves (B9) (Ins. (B10)) ter Table (C2) le on Aerial Insition (D2) d (D3) st (D5) unds (D6) (LR	re required MLRA 1, 2 ) nagery (C
marks: Plot lower than P-28	DROLOGY Vetland Hyderimary Indice High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse Vater table Featuration Pencludes cap	drology Indica cators (any one e Water (A1) /ater Table (A2) cion (A3) Marks (B1) ent Deposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B5) e Soil Cracks (B5) e Stained Leaves ly Vegetated Covations: er Present? Present? Present?	tors: indicator is si  2)  (B9) concave Surface Yes Yes Yes Yes	Water-	e, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos noce of Rect Iron Red d or Stres (Explain ir th (inches) th (inches) th (inches)	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Pla sed Plants of Remarks)  ):  >: >16"	(except  Ing Living C4) Owed Soi (D1) (LR	MLRA  Roots (C3) ils (C6) R A)  Wetland Hy	Sec Windows Dr Dr X Sa Sh X FA Ra Fr	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa aturation Visib comorphic Po- allow Aquitar aC-Neutral Te aised Ant Mou	ators (2 or modeleaves (B9) (Ins. (B10)) ter Table (C2) le on Aerial Insition (D2) d (D3) st (D5) unds (D6) (LR	re required MLRA 1, 2 ) nagery (C
name. Free forms affair 1 20.	DROLOGY Vetland Hyderimary Indice High W Saturat Water M Sedime Drift De Algal M Iron De Surface Water-S Sparse Gield Obser Surface Water table Istaturation Pencludes cap	drology Indica cators (any one e Water (A1) /ater Table (A2) cion (A3) Marks (B1) ent Deposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B5) e Soil Cracks (B5) e Stained Leaves ly Vegetated Covations: er Present? Present? Present?	tors: indicator is si  2)  (B9) concave Surface Yes Yes Yes Yes	Water-	e, 4A and rust (B11) c Inverteb gen Sulfide ed Rhizos noce of Rect Iron Red d or Stres (Explain ir th (inches) th (inches) th (inches)	rates (B13) e Odor (C1) pheres alor duced Iron ( uction in Pla sed Plants of Remarks)  ):  >: >16"	(except  Ing Living C4) Owed Soi (D1) (LR	MLRA  Roots (C3) ils (C6) R A)  Wetland Hy	Sec Windows Dr Dr X Sa Sh X FA Ra Fr	ondary Indica ater-Stained L 4A and 4B) ainage Patter y-Season Wa aturation Visib comorphic Po- allow Aquitar aC-Neutral Te aised Ant Mou	ators (2 or modeleaves (B9) (Ins. (B10)) ter Table (C2) le on Aerial Insition (D2) d (D3) st (D5) unds (D6) (LR	re required MLRA 1, 2 ) nagery (C:

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	: Tillamook				San	npling Dat	:e:	9/16/2014
Applicant/Owner:	Tillamook County						State: 0	OR	 San	npling Poi	nt: P-28	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W	Sec 23				
Landform (hillslop		diked floodplain		_	I relief (conca	-				S	Slope (%):	0-1%
` .	Columbia Plateau (I		Lat:	_	`	45.4722	_			3.87842		NAD27
Soil Map Unit Nar		aquents-Histosols	_				NWI Clas					
•	rologic conditions on				Yes						Remarks)	1
Are Vegetation	, Soil X				_		_				es X	
Are Vegetation		, or Hydrology					ed, explai					
7 o v ogotation	,	,,		natarany pr		(	ou, oxpiuii	,		10111011		
SUMMARY OF	F FINDINGS - A	tach site map	showing	sampling	point loca	ations, tra	ansects	, impor	tant fea	atures, o	etc.	
I le alua alas dia Mana	Antina Dannardo	V V N	_									
Hydrophytic Vege		Yes X No		Is the Sa	ampled Area	1	V		N. V			
Hydric Soil Prese			0 <u>X</u>	within	a Wetland?		Yes _		No <u>X</u>			
Wetland Hydrolog	yy Present? oximately 15 feet east		0 <u>X</u>									
VEGETATION												
			Absolute	Dominant	Indicator	Dominan	ce Test w	orkshee	t:			
Tree Stratum (L	Jse scientific names.)		% Cover	Species?	Status?	Number of		•				
1.					- ·	That Are (	OBL, FAC	W, or FA	C:	1		(A)
2.		_				Total Num	ber of Do	minant				_
3.					- ·	Species A	cross All	Strata:		2	<u>!</u>	(B)
4.						Percent of	f Dominar	nt Species	That			_
		Total Cover	:		· · · · · · · · · · · · · · · · · · ·	Are OBL,				50	%	(A/B)
Shrub Stratum						Prevalence	ce Index \	Workshe	et:			
1. Rubus laciniatu	IS		20	Y	FACU		al % Cove	er of:		Multip	ly by:	_
2						OBL spec	ies _		_x1 =_	0	)	_
3						FACW spe	_	90	_x2 =_	18	30	_
4						FAC spec	_	10	x3 =	30	0	_
5						FACU spe	_	20	x4 =	80	)	_
		Total Cover	:20			UPL spec	_		x5 =	0		=
Herb Stratum						Column To	_	120	_(A) _	29	0	(B)
1. Phalaris arund			90	Y	FACW	Preva	lence Ind	ex = B/A	=	2.4		=
2. Cirsium arvens	Se		10	N	FAC							
3						Hydrophy	_					
4								nce Test i				
5						X	Prevaler	nce Index	is ≤3.0			
6					·						supporting	g
										eparate sl	. '	
8							Problem	atic Hydr	ophytic \	egetation/	n¹ (Explain	)
		Total Cover	: 100									
Woody Vine St	<u>ratum</u>					<sup>1</sup> Indicators	s of hydric	soil and	wetland	hydrology	must be	
1						present.						
2						Hydrophy	/tic					
a		Total Cover			-	Vegetatio	n					
	re Ground in Herb St	ratum %	Cover of Bio	otic Crust	0	Present?			Yes X		No	
Remarks:												

nches)	Color (moist)	%	Color (r	noist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		R	lemarks	
-4	10YR 2/2	100						SiL	PHAF	R roots		
16	10YR 2/2	100						sand/gravels	_			
									_			
	-								_			
	Concentration, D=I						oated Sar					•
	I Indicators: (Ap	olicable to a	all LRRs, u					Indicators for		-		
_	ol (A1)			Sandy R		-				ıck (A10) ( <b>LI</b>		
_	Epipedon (A2)			Stripped		-	, , ,			ent Material		
_	Histic (A3)			-	-	ineral (F1)	(except l	MLRA 1)	_ Other (E	xplain in Re	emarks)	
	gen Sulfide (A4)			-	-	latrix (F2)						
	ted Below Dark Su			Depleted				3, ,, ,				
	Dark Surface (A12			Redox D					=	phytic veget		
	Muck Mineral (S					urface (F7)	)			y must be p		
	gleyed Matrix (S4	•		Redox D	epression	ons (F8)		uni	ess disturbe	d or problem	natic.	
estrictive	Layer (if present	):										
/pe:	00):						ш.,	dria Sail Bras	n#2	Voo		No V
ype: epth (inch narks: Dre	<u> </u>						Ну	dric Soil Pres	ent?	Yes_		No X
ype: epth (inch narks: Dre	edge pile						Ну	dric Soil Pres	ent?	Yes_		No X
pe: epth (inch narks: Dre PROLOGY etland Hy	edge pile Y ydrology Indicato						Ну	dric Soil Pres				
rpe: epth (inch narks: Dre eROLOGY etland Hy imary Ind	edge pile  Y ydrology Indicato icators (any one in		ufficient)	Webs		(00)			Secondar	y Indicators		e require
PROLOGY etland Hy imary Ind Surface	ydrology Indicatoricators (any one ince Water (A1)		ufficient)			eaves (B9)			Secondar Water-S	y Indicators tained Leave		e require
PROLOGY etland Hy imary Ind Surface High V	y ydrology Indicatoricators (any one in the Water (A1)		ufficient)	1, 2,	4A and				Secondar Water-S	y Indicators tained Leave	es (B9) ( <b>M</b>	e require
PROLOGY etland Hy imary Ind Surfac High V Satura	ydrology Indicatoricators (any one ince Water (A1) Vater Table (A2)		ufficient)	<b>1, 2,</b> Salt Crus	<b>4A and 4</b> st (B11)	<b>4B</b> )	(except		Secondar Water-S 4A a Drainag	y Indicators tained Leave nd 4B) e Patterns (E	es (B9) ( <b>M</b> B10)	e require
PROLOGY etland Hy imary Ind Surfac High V Satura Water	ydrology Indicatoricators (any one increase Water (A1) Vater Table (A2) ation (A3) Marks (B1)		ufficient)	<b>1, 2,</b> Salt Crus	<b>4A and</b> st (B11) Invertebr	<b>4B</b> ) rates (B13)	(except		Secondar Water-S 4A a Drainag Dry-Sea	y Indicators tained Leave nd 4B) e Patterns (E son Water T	es (B9) ( <b>M</b> B10) Table (C2)	e require
PROLOGY etland Hy imary Ind High V Satura Water Sedim	ydrology Indicatoricators (any one ince Water (A1) Vater Table (A2) ation (A3) Marks (B1) Ment Deposits (B2)		ufficient)	1, 2, Salt Crus Aquatic Hydroge	<b>4A and 4</b> st (B11) Invertebren Sulfide	<b>4B</b> ) rates (B13) e Odor (C1	(except	MLRA	Secondar Water-S 4A a Drainag Dry-Sea Saturatio	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on	es (B9) ( <b>M</b> B10) Table (C2) n Aerial Ima	e require
PROLOGY etland Hy imary Ind Surfac High V Satura Water Sedim Drift D	y ydrology Indicator (any one in the Water (A1) Vater Table (A2) (A3) Marks (B1) Ment Deposits (B2) Meposits (B3)		ufficient)	1, 2, 4 Salt Crus Aquatic Hydroge Oxidized	4A and 4 st (B11) Invertebren Sulfide I Rhizosp	4B) rates (B13) e Odor (C1 pheres alor	(except ) ) ng Living		Secondar Water-S 4A a Drainag Dry-Sea Saturatic	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior	es (B9) ( <b>M</b> B10) Table (C2) In Aerial Ima In (D2)	e require
PROLOGY etland Hy imary Ind Surfac High V Satura Water Sedim Drift D Algal I	edge pile  Y  ydrology Indicator icators (any one ince Water (A1)  Vater Table (A2) ation (A3)  Marks (B1) ment Deposits (B2) peposits (B3)  Mat or Crust (B4)		ufficient)	1, 2, 4 Salt Crus Aquatic Hydroge Oxidized Presence	4A and 4 st (B11) Invertebren Sulfide I Rhizospe of Red	rates (B13) e Odor (C1 pheres alor luced Iron	(except ) ) ng Living (C4)	MLRA Roots (C3)	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D:	es (B9) ( <b>M</b> B10) Fable (C2) In Aerial Ima In (D2) 3)	e require
PROLOGY PROLOG	y ydrology Indicator icators (any one in the Water (A1) Water Table (A2) ation (A3) Marks (B1) thent Deposits (B2) deposits (B3) Mat or Crust (B4) deposits (B5)	idicator is su	ufficient)	1, 2, 4 Salt Crue Aquatic Hydroge Oxidized Presenc Recent I	4A and 4 st (B11) Invertebren Sulfide d Rhizospe e of Red ron Red	rates (B13) e Odor (C1 pheres alou luced Iron outtion in P	(except ) ) ng Living (C4) lowed So	MLRA Roots (C3) iils (C6)	Secondal Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D	es (B9) ( <b>M</b> B10) Fable (C2) A Aerial Ima n (D2) 3)	e require LRA 1, 2
PROLOGY etland Hy imary Ind Surface Water Sedim Drift D Algal I Iron D Surface	ydrology Indicatoricators (any one ince Water (A1) Vater Table (A2) Addition (A3) Marks (B1) Ment Deposits (B2) Meposits (B3) Mat or Crust (B4) Meposits (B5) Mesosits (B5) Mesosits (B6) Mesosits (B6)	idicator is su	ufficient)	1, 2, 4 Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted	4A and 4 st (B11) Invertebren Sulfide d Rhizospe of Red ron Reduor Stress	rates (B13) e Odor (C1 pheres alor luced Iron uction in Pl sed Plants	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3) iils (C6)	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D	es (B9) ( <b>M</b> B10) Fable (C2) The Aerial Image (D2) S1) D5) (D6) (LRR	e require LRA 1, 7
PROLOGY PROLOG	edge pile  Y  ydrology Indicator icators (any one ince Water (A1)  Vater Table (A2) ation (A3)  Marks (B1) Hent Deposits (B2) Peposits (B3)  Mat or Crust (B4) Peposits (B5)  See Soil Cracks (B6)  -Stained Leaves (	idicator is su		1, 2, 4 Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted	4A and 4 st (B11) Invertebren Sulfide d Rhizospe of Red ron Reduor Stress	rates (B13) e Odor (C1 pheres alou luced Iron outtion in P	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3) iils (C6)	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D	es (B9) ( <b>M</b> B10) Fable (C2) The Aerial Image (D2) S1) D5) (D6) (LRR	e require LRA 1,
Prope:  Proper (inch  Proper (	y ydrology Indicator icators (any one in the Water (A1) Vater Table (A2) ation (A3) Marks (B1) thent Deposits (B2) the posits (B3) Mat or Crust (B4) the posits (B5) the Soil Cracks (B6) -Stained Leaves ( the problem of the problem	idicator is su		1, 2, 4 Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted	4A and 4 st (B11) Invertebren Sulfide d Rhizospe of Red ron Reduor Stress	rates (B13) e Odor (C1 pheres alor luced Iron uction in Pl sed Plants	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3) iils (C6)	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D	es (B9) ( <b>M</b> B10) Fable (C2) The Aerial Image (D2) S1) D5) (D6) (LRR	e require LRA 1, 7
Primary Ind Water Water Water Surface Water Variand Drift D Surface Water Surface Variand Vari	ydrology Indicators (any one in the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Ment Deposits (B2) Meposits (B3) Mat or Crust (B4) Meposits (B5) Mesosite (B5) Mesosite (B5) Mesosite (B6) Mesosite (B6) Metor Crust (B4) Met	idicator is su		1, 2, 4 Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	4A and 4 st (B11) Invertebren Sulfide d Rhizospe of Red ron Reduor Stress	rates (B13) e Odor (C1 pheres alor luced Iron uction in Pl sed Plants Remarks)	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3) iils (C6)	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D	es (B9) ( <b>M</b> B10) Fable (C2) The Aerial Image (D2) S1) D5) (D6) (LRR	e require LRA 1, 2
PROLOGY Petland Hyrimary Ind Surface Water Sedim Drift D Algal I Iron D Surface Water Sparse eld Obse urface Water table	ydrology Indicators (any one in the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Ment Deposits (B2) Ment Deposits (B3) Mat or Crust (B4) Menosits (B5) Menosits (B5) Menosits (B5) Menosits (B6) Menosits (B6) Menosits (B6) Menosits (B6) Menosits (B7) Menosits (B7) Menosits (B8)	dicator is su  39) cave Surfac  res	——————————————————————————————————————	1, 2, Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	st (B11) Invertebren Sulfider In Reduce or Stress Explain in  (inches) (inches)	rates (B13) e Odor (C1 pheres alor luced Iron uction in Pl sed Plants Remarks)	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3) iils (C6) R A)	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D Ant Mounds eave Hummo	es (B9) ( <b>M</b> B10) Fable (C2) Fable (C2) Fable (D2) Fable (D2) Fable (D6) Fable (D6) Fable (D6) Fable (D7) Fable (D7)	e require LRA 1, 2 agery (C
DROLOGY Petland Hyrimary Ind Surface Water Sedim Drift D Algal I Iron D Surface Water Sparse Sparse Seld Obse urface Water table aturation I	ydrology Indicators (any one in the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Marks (B1) Ment Deposits (B2) Meposits (B3) Mat or Crust (B4) Mat or C	dicator is su 39) cave Surfac		1, 2, Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	st (B11) Invertebren Sulfider I Rhizospe of Redron Redron Stress Explain in  (inches)	rates (B13) e Odor (C1 pheres alor luced Iron uction in Pl sed Plants Remarks)	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3) iils (C6)	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D Ant Mounds eave Hummo	es (B9) ( <b>M</b> B10) Fable (C2) The Aerial Image (D2) S1) D5) (D6) (LRR	e require LRA 1, 2
PROLOGY Petland Hyrimary Ind Surface Water Sedim Drift D Algal I Iron D Surface Water Sparse eld Obse urface Water table aturation Fincludes ca	ydrology Indicators (any one in the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Marks (B1) Ment Deposits (B2) Meposits (B3) Mat or Crust (B4) Mat or C	dicator is su  39) cave Surfac  (es (es (es	De (B8)  No X No X No X	1, 2, 4 Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	st (B11) Invertebren Sulfider In Reduce or Stress Explain in  (inches) (inches)	rates (B13) e Odor (C1 pheres alor luced Iron ( uction in Pl sed Plants Remarks)  E >16" E >16"	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA Roots (C3) iils (C6) R A) Wetland Hyd	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D Ant Mounds eave Hummo	es (B9) ( <b>M</b> B10) Fable (C2) Fable (C2) Fable (D2) Fable (D2) Fable (D6) Fable (D6) Fable (D6) Fable (D7) Fable (D7)	e require LRA 1, 2 agery (C
PROLOGY etland Hy imary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Water Sparse eld Obse urface Wa ater table aturation F includes ca	ydrology Indicators (any one in the Water (A1) Vater Table (A2) Ation (A3) Marks (B1) Marks (B1) Ment Deposits (B2) Meposits (B3) Mat or Crust (B4) Mat or C	dicator is su  39) cave Surfac  (es (es (es	De (B8)  No X No X No X	1, 2, 4 Salt Crus Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	st (B11) Invertebren Sulfider In Reduce or Stress Explain in  (inches) (inches)	rates (B13) e Odor (C1 pheres alor luced Iron ( uction in Pl sed Plants Remarks)  E >16" E >16"	(except ) ) ng Living (C4) lowed So (D1) (LR	MLRA	Secondar Water-S 4A a Drainag Dry-Sea Saturatic Geomor Shallow FAC-Ne Raised	y Indicators tained Leave nd 4B) e Patterns (E son Water T on Visible on phic Positior Aquitard (D3 utral Test (D Ant Mounds eave Hummo	es (B9) ( <b>M</b> B10) Fable (C2) Fable (C2) Fable (D2) Fable (D2) Fable (D6) Fable (D6) Fable (D6) Fable (D7) Fable (D7)	e require LRA 1, 2 agery (C

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	: Tillamook				Samplii	ng Date:	9/16/2014
Applicant/Owner:	Tillamook County						State:	OR	Samplii	ng Point: F	2-29
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10V	/ Sec 23	_	_	
Landform (hillslop	e, terrace, etc.):	diked floodplain		Loca	l relief (conca	ave, convex	, none):	flat		Slope	(%): 0-1%
Subregion (LRR):	Columbia Plateau (	LRR B)	Lat:	_	·						atum: NAD27
Soil Map Unit Nar		aquents-Histosols o	complex, dik	ed				ssification:			-
•	ologic conditions on	•			Yes 2					lain in Rem	narks)
•	, Soil		•		-			rcumstance	-		
Are Vegetation		, or Hydrology						in any ansv		_	
7 no vogotation	, con			natarany pr	obiomatio.	(11 110001	ou, onpiu	any and	1010 111 1 1011	iaino.)	
SUMMARY OF	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansect	s, importa	ant featu	res, etc.	
Hydrophytic Vege	tation Present?	Yes X No	)								
Hydric Soil Presei	nt?	Yes X No			ampled Area a Wetland?	ı	Yes	Χ	No		
Wetland Hydrolog	y Present?	Yes X No		WILLIIII	a Wellallu:						
Plot located within	n open ag field, appro	oximately 100 feet v	west of treeli	ne, 7 feet so	outh of E-W	litch.					
VEGETATION											
			Absolute	Dominant	Indicator	Dominan	ce Test v	worksheet:			
Tree Stratum (L	Jse scientific names.	)	% Cover	Species?	Status?			nt Species			
1.	•					That Are C	OBL, FAC	CW, or FAC	:	2	(A)
2.						Total Num	ber of D	ominant			`
3.						Species A	cross All	Strata:		2	(B)
4.						Dercent of	f Domina	nt Species	That		<u> </u>
		Total Cover:				Are OBL,		•		100%	(A/B)
Shrub Stratum						Prevalenc	ce Index	Workshee	t:		
1						Tota	al % Cov	er of:		Multiply by:	<u>.                                    </u>
2						OBL spec	ies		x1 =	0	
3				-		FACW spe	ecies		x2 =	0	
4				-		FAC spec	ies		x3 =	0	
5						FACU spe	ecies		x4 =	0	
		Total Cover:				UPL speci	ies		x5 =	0	
Herb Stratum						Column To	otals:	0	(A)	0	(B)
1. Phalaris arundi	inacea		50	Y	FACW	Preva	lence Ind	dex = B/A =	#	#DIV/0!	
2. Alopecurus pra	ntensis	_	50	Υ	FAC						
3						Hydrophy	tic Vege	etation Indi	cators:		
4.						Χ	Domina	ance Test is	>50%		
5.						#DIV/0!	Prevale	nce Index i	s ≤3.0 <sup>1</sup>		
6.							Mornho	ological Ada	ntation <sup>1</sup> (P	rovide sunn	orting
7.								Remarks or			
8.			-				Probler	natic Hydro	phytic Vea	etation <sup>1</sup> (Ex	(plain)
		Total Cover:	100	-				,	1 , 1 - 3	(	,
Woody Vine St	ratum					<sup>1</sup> Indicators	s of hydri	c soil and w	etland hyd	rology mus	t he
1						present.	or riyan	o oon ana w	retiaria riya	rology mas	
2.			-	•							
		Total Cover:	100	-	<del></del>	Hydrophy					
% Ba	re Ground in Herb S			otic Cruet	0	Vegetatio Present?			Yes X	No	
			Cover or bic	nic Grust		r resent:			163 /		
Remarks: Plot loc	ated in mowed field.										

Profile Des	scription: (Describe	to the de	epth needed to	document	the indic	ator or	confirm the abs	sence of indicators.)
Depth	Matrix			Redox Feat			<del></del>	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc	<sup>2</sup> Texture	Remarks
0-5	10YR 2/2	100					SiL	<u> </u>
5-16	10YR 3/2	70	7.5YR 3/4	30	С	M	SiCl	
	1			_				
				_				
	1			_				
	·							
1 <sub>Tymey</sub> C=0	Sensentration D-Don	lotion Di	4-Dadward Mat		varad ar C	Cooted	Cand Crains 2	ocation: PL=Pore Lining, M=Matrix.
						Joaled		
=	I Indicators: (Applic	able to a			-		Indicators	for Problematic Hydric Soils <sup>3</sup> :
	sol (A1)			y Redox (S			_	2 cm Muck (A10) ( <b>LRR B</b> )
	Epipedon (A2)			ed Matrix (	,		_	Red Parent Material (TF2)
	Histic (A3)			-			pt MLRA 1)	Other (Explain in Remarks)
	gen Sulfide (A4)			y Gleyed M	•	2)		
	ted Below Dark Surfa	ce (A11)		eted Matrix			_	
	Dark Surface (A12)			x Dark Surf				tors of hydrophytic vegetation and
Sandy	Muck Mineral (S1)		Deple	eted Dark S	urface (F	7)	wetl	and hydrology must be present,
Sandy	gleyed Matrix (S4)		Redo	x Depression	ons (F8)		ur	less disturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (inch	es):						Hydric Soil Pres	sent? Yes <u>X</u> No
HYDROLOG	Y							
Wetland H	ydrology Indicators:							
Primary Ind	licators (any one indic	ator is su	fficient)					Secondary Indicators (2 or more required)
Surfac	ce Water (A1)		Wate	r-Stained L	eaves (B9	9) ( <b>exc</b> e	ept MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
High \	Vater Table (A2)		1,	2, 4A and	4B)		_	4A and 4B)
Satura	ation (A3)		Salt 0	Crust (B11)			_	Drainage Patterns (B10)
Water	Marks (B1)		Aqua	tic Inverteb	rates (B13	3)	_	Dry-Season Water Table (C2)
Sedim	ent Deposits (B2)		Hydro	ogen Sulfide	e Odor (C	21)	_	Saturation Visible on Aerial Imagery (C9)
Drift D	eposits (B3)		X Oxidi	zed Rhizos	pheres al	ong Livi	ng Roots (C3)	Geomorphic Position (D2)
Algal I	Mat or Crust (B4)		Prese	ence of Rec	luced Iron	n (C4)	_	Shallow Aquitard (D3)
Iron D	eposits (B5)		Rece	nt Iron Red	uction in F	Plowed	Soils (C6)	FAC-Neutral Test (D5)
Surfac	ce Soil Cracks (B6)		Stunt	ed or Stres	sed Plant	ts (D1) (	LRR A)	Raised Ant Mounds (D6) (LRR A)
Water	-Stained Leaves (B9)		Other	(Explain in	Remarks	s)	_	Frost-Heave Hummocks (D7)
Spars	ely Vegetated Concav	ve Surfac	e (B8)					
Field Obse	rvations:							
	nter Present? Yes			oth (inches)				
Water table Saturation I				oth (inches) oth (inches)			Watland Hy	drology Present? Yes X No
	apillary fringe)	·	De	our (IIICHES)	,. <u>- 10</u>		vveuanu ny	MO
_ `	orded Data (stream g	auge, mo	nitoring well, ae	rial photos,	previous	inspect	ions), if available	:
Remarks: All	wetland from ditch so	uth to roa	ıd.					

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County	Tillamook			Sampling D	ate:	9/16/2014
•	Tillamook County			, ,			State: OR		Point: P-30	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop	•	diked floodplain		_			, none): flat		Slope (%):	0-1%
` .	Columbia Plateau (			_	,		Long:		_	NAD27
Soil Map Unit Nar		uille silt loam, diked	_				NWI Classification:		=	
•	ologic conditions on			/ear?	Yes			(If no, explain	in Remarks	)
Are Vegetation	, Soil				_		ormal Circumstance	=		
Are Vegetation		, or Hydrology					ed, explain any ansv			
7 ii o v ogolalion	, con			natarany pr	obiomatio.	(11 110001	ou, explain any and		,	
SUMMARY OF	FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant features	s, etc.	
Hydrophytic Vege	tation Present?	Yes X No	0							
Hydric Soil Presei	nt?	Yes X No			ampled Area a Wetland?	ì	Yes X	No		
Wetland Hydrolog	y Present?	Yes X No		WILLIIII	a vvetianu :		<del></del>			
Plot located appro	oximately 12 feet nor	th of ditch, to show	wet field co	l ndition.						
VEGETATION										
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet:			
Tree Stratum (L	Jse scientific names.	)	% Cover	Species?	Status?	Number o	f Dominant Species			
1.	•	•			· ———	That Are 0	OBL, FACW, or FAC	:	2	(A)
2.						Total Num	ber of Dominant			_` ′
3.						Species A	cross All Strata:		2	(B)
4.						Percent of	Dominant Species	That		_ ` ´
		Total Cover:	:				FACW, or FAC:		00%	(A/B)
Shrub Stratum						Prevalence	e Index Workshee	t:		
1						-	al % Cover of:	Mul	tiply by:	_
2						OBL spec	ies	_x1 =	0	_
3						FACW spe		x2 =	0	_
4						FAC spec		x3 =	0	_
5						FACU spe		x4 =	0	_
		Total Cover:	:			UPL spec		x5 =	0	_
Herb Stratum						Column To		(A)	0	_(B)
1. Festuca arundi			75	Y	FAC	Preva	lence Index = B/A =	#DI\	//0!	_
2. Holcus lanatus			25	Y	FAC					
3. Rumex crispus			5		FAC	Hydrophy	tic Vegetation Indi			
4						X	Dominance Test is			
						#DIV/0!	Prevalence Index i	s ≤3.0'		
6							Morphological Ada			g
							data in Remarks or	•		
8							Problematic Hydro	phytic Vegetati	on ' (Explain	1)
		Total Cover:	105							
Woody Vine St	<u>ratum</u>						s of hydric soil and w	etland hydrolo	gy must be	
						present.				
2						Hydrophy	rtic .			
		Total Cover:				Vegetatio	n			
	re Ground in Herb S		Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks: Plot loc	ated in area most like	ely to be upland.								

Profile Des	scription: (Describe	to the de	epth need	led to do	cument t	the indica	ator or	r coı	nfirm the absen	nce of indicators.)
Depth	Matrix			Red	dox Feat	ures				
(inches)	Color (moist)	%	Color (	(moist)	%	Type <sup>1</sup>	Loc	2 <sup>2</sup>	Texture	Remarks
0-4	10YR 2/2	100							SiL	
4-12	10YR 3/2	80	10YR 3/	6	20	С	M		SiCl	
12-16	10YR 3/2	60	10YR 3/	6	20	С	M		SiCI	
			7.5YR 3	/4	20	С	M			
<sup>1</sup> Type: C=0	Concentration, D=Dep	letion, RI	M=Reduc	ed Matrix,	CS=Cov	vered or C	Coated	San	d Grains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soi	I Indicators: (Applic	able to a	II LRRs,	unless ot	herwise	noted.)			Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histos	sol (A1)			Sandy F	edox (S	5)				2 cm Muck (A10) ( <b>LRR B</b> )
Histic	Epipedon (A2)			Stripped						Red Parent Material (TF2)
Black	Histic (A3)			Loamy N	/lucky Mi	neral (F1	) (exce	ept N	MLRA 1)	Other (Explain in Remarks)
Hydro	gen Sulfide (A4)		<u> </u>	Loamy (	Sleyed M	latrix (F2	2)			
Deple	ted Below Dark Surface	ce (A11)		Depleted	d Matrix (	(F3)				
Thick	Dark Surface (A12)		X	Redox D	ark Surf	ace (F6)			<sup>3</sup> Indicator	rs of hydrophytic vegetation and
Sandy	/ Muck Mineral (S1)		<u> </u>	Depleted	d Dark S	urface (F	7)		wetland	d hydrology must be present,
Sandy	gleyed Matrix (S4)			Redox D	epressio	ons (F8)			unles	ss disturbed or problematic.
Restrictive	Layer (if present):									
Type:										
Depth (inch	nes):							Нус	dric Soil Preser	nt? Yes <u>X</u> No
Remarks:							L			
HYDROLOG'	Y									
	ydrology Indicators:									
	licators (any one indic		ifficient)							Secondary Indicators (2 or more required)
	ce Water (A1)			Water-S	tained Le	eaves (B9	9) ( <b>exc</b> e	ept		Water-Stained Leaves (B9) (MLRA 1, 2,
	Nater Table (A2)				4A and		, (-			4A and 4B)
	ation (A3)			Salt Cru		,				Drainage Patterns (B10)
	Marks (B1)					ates (B13	3)			Dry-Season Water Table (C2)
	nent Deposits (B2)					e Odor (C				Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)		X					/ing	Roots (C3)	Geomorphic Position (D2)
	Mat or Crust (B4)				-	uced Iron	-	J	· /	Shallow Aquitard (D3)
	eposits (B5)					uction in F		l Soi	ls (C6)	FAC-Neutral Test (D5)
	ce Soil Cracks (B6)		-			sed Plants			` '	Raised Ant Mounds (D6) ( <b>LRR A</b> )
	-Stained Leaves (B9)					Remarks		`	·	Frost-Heave Hummocks (D7)
	ely Vegetated Concav		e (B8)	,			,			. ,
Field Obse								Т		
	ater Present? Yes	;	No X	Depth	(inches)	:				
Water table			No X		(inches)					
Saturation I		·	No X	_ Depth	(inches)	: <u>&gt;16"</u>			Wetland Hydro	ology Present? Yes X No
•	apillary fringe) corded Data (stream g	auge, mo	nitorina w	vell. aerial	photos	previous	inspect	tions	s), if available	
December 1450	o. aca Data (stream y	augo, mi		.o., acriai	p110103,	PICVIOUS	opect		, ii avallable.	
Remarks: Plo	t located at highest el	evation in	n field, slo	pes down	to the no	orth.				

Project/Site:	Tillamook - Southern	n Flow Corridor		City/County:	: Tillamook			Samp	ling Date:		9/17/2014
Applicant/Owner:	Tillamook County						State: OR	Samp	ling Point:	: P-31	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			-	
Landform (hillslop		diked floodplain		_		-	, none): flat		Slo	pe (%):	0-1%
	Columbia Plateau (L		Lat:	_	,		Long:				NAD27
Soil Map Unit Nar		ille silt loam, diked	-				NWI Classification				-
•	ologic conditions on t			/ear?	Yes		No		plain in R	emarks)	)
	, Soil				·-		ormal Circumstan				
Are Vegetation		_, or Hydrology _, or Hydrology					ed, explain any ar			, <u>, , , , , , , , , , , , , , , , , , </u>	
, as regetation	,	_, 0, 0.0.09,				(	ou, onplant any ar				
SUMMARY O	FINDINGS - At	tach site map	showing	sampling	point loca	ations, tra	ansects, impo	rtant feat	ures, et	c.	
Hydrophytic Vege	tation Present?	Yes X No	)								
Hydric Soil Presei	nt?	Yes No	X		ampled Area a Wetland?	3	Yes	No X			
Wetland Hydrolog	y Present?	Yes No	X	WILIIII	a wellanu?					_	
Plot located in page	sture on topo raise.										
VEGETATION											
			Absolute	Dominant	Indicator		ce Test workshe				
Tree Stratum (L	Ise scientific names.)		% Cover	Species?	Status?		f Dominant Speci				
1						That Are C	OBL, FACW, or F	AC:	3		_(A)
2							ber of Dominant				
3						Species A	cross All Strata:		3		_(B)
4						Percent of	Dominant Specie	es That			
		Total Cover:				Are OBL,	FACW, or FAC:		100%	<b>3</b>	_(A/B)
0 0											
Shrub Stratum							e Index Worksh	eet:	N.A. 101 - 1		
1						-	al % Cover of:	_ , _	Multiply	by:	_
2.						OBL spec		x1 =	0		-
3						FACW spe		x2 =	0		_
4						FAC speci		x3 =			-
5		Total Cavari				FACU speci		x4 =	<u> </u>		-
Herb Stratum		Total Cover:				Column To	-	x5 =	0		- (D)
1. Agrostis capilla	vrio		60	Y	FAC		lence Index = B/A	(A)	#DIV/0!		_(B)
Agrostis capilla     Holcus lanatus			20	Y	FAC	FIEVa	ierice iridex – b/F	`	#DIV/U:		=
Trifolium repen			20	Y	FAC	Hydronby	rtic Vegetation Ir	ndioators:			
Dactylis glome			10	N	FACU	X	Dominance Test				
Alopecurus gei			5	N	OBL		Prevalence Inde				
6. Trifolium pratei			5	N	FACU	#51470.			D		
7. Cirsium arvens			1	N	FAC		Morphological A data in Remarks				g
8.	<u> </u>		<u> </u>				Problematic Hyd			,	ı)
		Total Cover:	121					,	9-1-11	(	,
Woody Vine St	<u>ratum</u>					<sup>1</sup> Indicators present.	s of hydric soil and	d wetland hy	drology m	nust be	
2.						Hydrophy	rtic				
		Total Cover:				Vegetatio					
% Ba	re Ground in Herb St	ratum%	Cover of Bio	otic Crust	0	Present?		Yes X	N	o	
Remarks:											

9 10YR 3/3 100	inches)	Color (moist)	%	Color (mois	st) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, C5=Covered or Coated Sand Grains.    **Location: PL=Pore Lining, M=Matrix.**  ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)		0YR 3/3	. ——					SiL			
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Serticitive Layer (if present):  pre: large cobbles and asphalt chunks  peth (inches): 3"  Hydric Soil Present?  Yes  No X  No X  No Hydrogen Sulface (A11)  Depleted Matrix (F2)  Secondary Indicators (2 or more required water (A1)  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present?  Yes  No X  No X  Secondary Indicators (2 or more required water Mater (B13)  Saturation (A3)  Sati Crust (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Water Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B12)  Hydric Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B13)  Depleted Date (National County (B11)  Depleted Depleted National Co	-16 10	0YR 3/3	80	10YR 3/6	20	С	М	SiL			
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Serticitive Layer (if present):  pre: large cobbles and asphalt chunks  peth (inches): 3"  Hydric Soil Present?  Yes  No X  No X  No Hydrogen Sulface (A11)  Depleted Matrix (F2)  Secondary Indicators (2 or more required water (A1)  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present?  Yes  No X  No X  Secondary Indicators (2 or more required water Mater (B13)  Saturation (A3)  Sati Crust (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Water Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B12)  Hydric Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B13)  Depleted Date (National County (B11)  Depleted Depleted National Co											
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Serticitive Layer (if present):  pre: large cobbles and asphalt chunks  peth (inches): 3"  Hydric Soil Present?  Yes  No X  No X  No Hydrogen Sulface (A11)  Depleted Matrix (F2)  Secondary Indicators (2 or more required water (A1)  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present?  Yes  No X  No X  Secondary Indicators (2 or more required water Mater (B13)  Saturation (A3)  Sati Crust (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Water Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B12)  Hydric Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B13)  Depleted Date (National County (B11)  Depleted Depleted National Co								<u> </u>	_		
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Serticitive Layer (if present):  pre: large cobbles and asphalt chunks  peth (inches): 3"  Hydric Soil Present?  Yes  No X  No X  No Hydrogen Sulface (A11)  Depleted Matrix (F2)  Secondary Indicators (2 or more required water (A1)  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present?  Yes  No X  No X  Secondary Indicators (2 or more required water Mater (B13)  Saturation (A3)  Sati Crust (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Water Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B12)  Hydric Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B13)  Depleted Date (National County (B11)  Depleted Depleted National Co			. ——								
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Serticitive Layer (if present):  pre: large cobbles and asphalt chunks  peth (inches): 3"  Hydric Soil Present?  Yes  No X  No X  No Hydrogen Sulface (A11)  Depleted Matrix (F2)  Secondary Indicators (2 or more required water (A1)  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present?  Yes  No X  No X  Secondary Indicators (2 or more required water Mater (B13)  Saturation (A3)  Sati Crust (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Water Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B12)  Hydric Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B13)  Depleted Date (National County (B11)  Depleted Depleted National Co			. ——					<u> </u>			
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Sandy Redox (S5)  Histosol (A2)  Stirpped Matrix (S6)  Black Histic (A3)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Muck Mineral (S1)  Sandy Muck Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be present, unless disturbed or problematic.  Serticitive Layer (if present):  pre: large cobbles and asphalt chunks  peth (inches): 3"  Hydric Soil Present?  Yes  No X  No X  No Hydrogen Sulface (A11)  Depleted Matrix (F2)  Secondary Indicators (2 or more required water (A1)  Water-Stained Leaves (B9) (except MLRA  Hydric Soil Present?  Yes  No X  No X  Secondary Indicators (2 or more required water Mater (B13)  Saturation (A3)  Sati Crust (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Depleted Date (National County (B11)  Water Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B12)  Hydric Soil Present?  Yes  No X  Secondary Indicators (2 or more required water (B13)  Depleted Date (National County (B11)  Depleted Depleted National Co											
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR B) HistoEpipedon (A2) Stripped Matrix (S8) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Setrictive Layer (if present): Pge: large cobbles and asphalt chunks eith (inches): 8 <sup>r</sup> Hydric Soil Present? Yes No X  arks:  DROLOGY  Saturation (A3) Salt Crust (B11) Drainage Patterns (B13) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C3 Dirift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  eld Observations: urtace Water Fresent? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216° Wetland Hydrology Present? Yes No X Depth (inches): 216	ype: C=Con	ncentration, D=Dep	letion, RI	M=Reduced M	latrix, CS=Co	vered or C	oated Sa	and Grains. <sup>2</sup> Loo	cation: PL=Po	re Lining, M=Matri	х.
Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy gleyed Matrix (S4) Redox Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic.  Batrictive Layer (if present): //pre: large cobbles and asphalt chunks epth (inches): 8**  Brokococy  Petand Hydrology Indicators: Imary Indicators (any one indicator is sufficient)  Surface Water (A1) Water A10 High Water Table (A2) 1, 2, 4A and 4B) Sati Crust (B11) Drainage Patterns (B10) Water Marks (B1) Drainage Patterns (B10) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation (A3) Agal Mator Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mator Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Sparsely Vegetated Concave Surface (B8)  eld Observations: urder Adam Aguage, monitoring well, aerial photos, previous inspections), if available:	ydric Soil In	dicators: (Applic	able to a			-		Indicators fo		-	
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. Sandy gleyed Matrix (S4) Redox Derpressions (F8) unless disturbed or problematic.  strictive Layer (if present): The large cobbles and asphalt chunks path (inches): 8° Hydric Soil Present? Yes No X  arks:    Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2) High Water Table (A2) 1, 2, 4A and 4B) Aand 4B) Saturation (A3) Salt Crust (B11) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Suffice Odor (C1) Drift Deposits (B2) Hydrogen Suffice Odor (C1) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Right or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8)  leid Observations: Iron Player (Present? Yes No X Depth (inches): Iron P		` '			-	-			_		
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Sandy gleyed Matrix (S4) Depleted Dark Surface (F7) Sandy gleyed Matrix (S4) Redox Depressions (F8) Wetland hydrology must be present, Wetland hydrology flaties of hydrology flaties, Water-Stained Leaves (B9) Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth						•	, .				
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Sendy Muck Mineral (S1) Sendy Muck Mineral (S1) Sendy Muck Mineral (S1) Redox Depressions (F8) Setrictive Layer (if present):  pe: large cobbles and asphalt chunks pith (inches): BROLOGY  ettand Hydrology Indicators: imary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Seturation (A3) Salt Crust (B11) Seturation (A3) Salt Crust (B11) Seturation (A3) Surface Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Surface Soil Cracks (B8) Prost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  Wetland Hydrology Present? Yes No X Depth (inches): 16° Soil Set Steam Bauge, monitoring well, aerial photos, previous inspections), if available:					-			MLRA 1)	Other (Exp	lain in Remarks)	
Thick Dark Surface (A12)			(8.4.4)			, ,	1				
Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, structive Layer (if present): per: large cobbles and asphalt chunks peth (inches): 8" Hydric Soil Present? Yes No X  Secondary Indicators (2 or more required Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2 High Water Table (A2) 1, 2, 4A and 4B) Aquatic Invertebrates (B13) Drainage Patterns (B10)  Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C3 Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)  Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  ethic Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	-		ce (A11)		-			3, ,, ,			
Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.    Secondary (if present):	_						• \				
Secondary Indicators (2 or more required Water-Stained Leaves (89) (except MLRA Water-Stained L	_	` '					()			· ·	
pe: large cobbles and asphalt chunks pth (inches): 8"		· · · · · ·		Ke	dox Depression	ons (F8)	Ī	unie	ess disturbed C	or problematic.	
AROLOGY  etland Hydrology Indicators:  imary Indicators (any one indicator is sufficient)  Secondary Indicators (2 or more required.  Surface Water (A1)  High Water Table (A2)  High Water Table (A2)  Sattration (A3)  Satt Crust (B11)  Water Marks (B1)  Water Marks (B1)  Aquatic Invertebrates (B13)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery (C1)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Sutned or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  eld Observations:  Irface Water Present?  Yes  No X  Depth (inches):  Surface Root Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	estrictive La	iyer (ii present):									
ROLOGY  etland Hydrology Indicators: imary Indicators (any one indicator is sufficient)  Surface Water (A1)  High Water Table (A2)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Water Asha (B6)  Water Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Rologation (B8)  No X  Depth (inches):  Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2)  Water MLRA  And 4B)  Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2)  Water MLRA  4A and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery											
etland Hydrology Indicators: imary Indicators (any one indicator is sufficient)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Water Stained Leaves (B9) (MLRA 1, 2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Water Stained Leaves (B10)  Saturation Visible on Aerial Imagery (C5)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Prost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No X  Depth (inches):  Induction Present?  Yes  No X  Depth (inches):  Detribe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:			It chunks				Ц,	udria Sail Brasa	n+2	Voc	No. Y
Secondary Indicators (2 or more required Surface Water (A1)	epth (inches)		alt chunks	:			H	ydric Soil Prese	ent?	Yes	No X
Surface Water (A1)	epth (inches) narks:		alt chunks				H	ydric Soil Prese	ent?	Yes	No X
High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10)  Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C3) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  eld Observations: urface Water Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Seturation Present? Yes No X Depth (inches): Solution Present? Yes No X De	epth (inches) narks:	): <u>8"</u>					H	ydric Soil Prese	ent?	Yes	No X
Saturation (A3)  Salt Crust (B11)  Drainage Patterns (B10)  Water Marks (B1)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  eld Observations:  urface Water Present?  Again Mater Stained Second Secon	epth (inches) narks:  DROLOGY etland Hydr	cology Indicators:	:				H	ydric Soil Prese			
Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  eld Observations: urface Water Present? Yes No X Depth (inches): ater table Present? Yes No X Depth (inches): below tinches Depth (inches): No X Depth (inches): Dep	epth (inches) narks:  PROLOGY etland Hydr imary Indica	rology Indicators: tors (any one indic	:	ufficient)	ıter-Stained Li	eaves (B9			Secondary I	ndicators (2 or mor	re requirec
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  Peld Observations:  Irface Water Present?  Yes  No  X  Depth (inches):  Interest Present?  Tack Water Seconded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes  No  X  Devices A Saturation Visible on Aerial Imagery (C5)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  Depth (inches):  Sturted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  No  X  Depth (inches):  Sturted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  No  X  Depth (inches):  Sturted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  No  X  Depth (inches):  Sturted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  No  X  Depth (inches):  Sturted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  No  X  Depth (inches):  Sturted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  No  X  Depth (inches):  Sturted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Frost-Heave Hummocks (D8)  F	ROLOGY etland Hydr imary Indica Surface \	rology Indicators: tors (any one indic	:	ıfficient) Wa					Secondary I	ndicators (2 or mor	re required
Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  eld Observations:  Irface Water Present?  Yes  No  X  Depth (inches):  atter table Present?  Yes  No  X  Depth (inches):  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  Depth (inches):  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  Depth (inches):  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  No  X  Depth (inches):  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (	epth (inches)  PROLOGY  etland Hydr  imary Indica  Surface \  High Wat	rology Indicators: stors (any one indicators) Water (A1) ter Table (A2)	:	ufficient)	1, 2, 4A and				Secondary II Water-Stail	ndicators (2 or morned Leaves (B9) ( <b>N</b>	re required
Algal Mat or Crust (B4)	ROLOGY etland Hydr imary Indica Surface \ High Wat Saturatio	rology Indicators: ttors (any one indic Water (A1) ter Table (A2) in (A3)	:	ufficient) Wa Sal	<b>1, 2, 4A and</b> It Crust (B11)	<b>4B</b> )	) (excep		Secondary In Water-Stain 4A and Drainage P	ndicators (2 or mor ned Leaves (B9) ( <b>N</b> <b>4B</b> ) Patterns (B10)	e required
Iron Deposits (B5)	PROLOGY etland Hydr imary Indica Surface \ High Wat Saturatio Water Ma	rology Indicators: stors (any one indic Water (A1) ter Table (A2) in (A3) arks (B1)	:	ufficient)  — Wa — Sal — Aqı	1, 2, 4A and a It Crust (B11) uatic Inverteb	<b>4B</b> ) rates (B13	) (excep		Secondary II Water-Staii 4A and Drainage P Dry-Seasoi	ndicators (2 or mor ned Leaves (B9) ( <b>N</b> <b>4B</b> ) Patterns (B10) n Water Table (C2)	re required
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Water-Stained Leaves (B9) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  eld Observations: urface Water Present? Yes No X Depth (inches): ater table Present? Yes No X Depth (inches): >16" waturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes No X  Includes capillary fringe) Cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	PROLOGY etland Hydromary Indica Surface \ High Wat Saturatio Water Ma	rology Indicators: tors (any one indic Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2)	:	ufficient)  — Wa — Sai — Aqi — Hy	1, 2, 4A and a It Crust (B11) uatic Inverteb drogen Sulfide	<b>4B</b> ) rates (B13 e Odor (C2	) (excep	t MLRA	Secondary II Water-Stail 4A and Drainage P Dry-Seasol Saturation	ndicators (2 or mor ned Leaves (B9) ( <b>N</b> 4 <b>B</b> ) Patterns (B10) n Water Table (C2) Visible on Aerial In	re required
Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  eld Observations:  urface Water Present? Yes No X Depth (inches):  atter table Present? Yes No X Depth (inches): >16"  atturation Present? Yes No X Depth (inches): >16"  which is the present of	PROLOGY Petland Hydromary Indica Surface N High Wat Saturatio Water Ma Sedimen Drift Dep	rology Indicators: ttors (any one indic Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)	:	ufficient)  — Sal — Aqı — Hyu — Ox	1, 2, 4A and a lt Crust (B11) uatic Invertebration Sulfide idized Rhizos esence of Red	rates (B13 e Odor (C pheres alc luced Iron	) (excep 1) 1) ong Living (C4)	t MLRA	Secondary II Water-Stail 4A and Drainage P Dry-Seasol Saturation Geomorphi Shallow Ag	ndicators (2 or morned Leaves (B9) (Matterns (B10)) n Water Table (C2) Visible on Aerial Infic Position (D2) quitard (D3)	re required
Sparsely Vegetated Concave Surface (B8)  eld Observations:  urface Water Present? Yes No X Depth (inches):  fater table Present? Yes No X Depth (inches): >16"  atturation Present? Yes No X Depth (inches): >16"  wetland Hydrology Present? Yes No X  ncludes capillary fringe)  cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY Vetland Hydromary Indica Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat	rology Indicators: tors (any one indicators: Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	:	ufficient)  — Wa — Sa — Aqı — Hyı — Ox — Pre	1, 2, 4A and alt Crust (B11) uatic Invertebrate drogen Sulfide idized Rhizospesence of Reducent Iron Red	rates (B13 e Odor (C' pheres alc luced Iron uction in F	(C4)	t MLRA  g Roots (C3) oils (C6)	Secondary II Water-Stain 4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra	ndicators (2 or mor ned Leaves (B9) (Mathematics (B10) on Water Table (C2) Visible on Aerial In ic Position (D2) juitard (D3) al Test (D5)	re required ILRA 1, 2
eld Observations:  urface Water Present? Yes No _X Depth (inches): dater table Present? Yes No _X Depth (inches): >16" daturation Present? Yes No _X Depth (inches): >16" deturation Present? Yes No _X Depth (inches): >16" deturation Present? Yes No _X deturation Present? Yes No _X deturbules capillary fringe)  cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	PROLOGY Petland Hydromary Indica Surface Notes Water May Sediment Drift Depo	rology Indicators: tors (any one indic Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6)	: cator is su	ufficient)  — Wa — Sal — Aqı — Hyı — Ox — Pre — Re — Stı	1, 2, 4A and a It Crust (B11) uatic Invertebr drogen Sulfide idized Rhizos esence of Red cent Iron Red unted or Stress	rates (B13 e Odor (C2 pheres alc luced Iron uction in F sed Plants	(C4) Plowed S	t MLRA  g Roots (C3) oils (C6)	Secondary In Water-Stain  4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra	ndicators (2 or morned Leaves (B9) (Materns (B10)) In Water Table (C2) Visible on Aerial Incompanies (D2) Juitard (D3) Juitard (D3) Juitard (D5) Mounds (D6) (LRI	ne required MLRA 1, 2 nagery (CS
urface Water Present? Yes No X Depth (inches): ater table Present? Yes No X Depth (inches): >16" uturation Present? Yes No X Depth (inc	PROLOGY  PROLOGY  Petland Hydrimary Indica  Surface V  High Water Ma  Sediment  Drift Dep  Algal Mater  Iron Depo  Surface S  Water-St	rology Indicators: tors (any one indicators: water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) ained Leaves (B9)	: cator is su	ufficient)  — Sal — Aqı — Hyu — Ox — Pre — Re — Stu	1, 2, 4A and a It Crust (B11) uatic Invertebr drogen Sulfide idized Rhizos esence of Red cent Iron Red unted or Stress	rates (B13 e Odor (C2 pheres alc luced Iron uction in F sed Plants	(C4) Plowed S	t MLRA  g Roots (C3) oils (C6)	Secondary In Water-Stain  4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra	ndicators (2 or morned Leaves (B9) (Materns (B10)) In Water Table (C2) Visible on Aerial Incompanies (D2) Juitard (D3) Juitard (D3) Juitard (D5) Mounds (D6) (LRI	ne required  ILRA 1, 2  nagery (Cs
Tater table Present? Yes No X Depth (inches): >16"  Auturation Present? Yes No X Depth (inches): >16"  Auturation Present? Yes No X Depth (inches): >16"  Wetland Hydrology Present? Yes No X  Auturation Present? Yes No X  The provious inspections in the provious inspection in th	PROLOGY Petland Hydromary Indica Surface Note that the second of the sec	rology Indicators: stors (any one indicators: water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) ained Leaves (B9) Vegetated Concar	: cator is su	ufficient)  — Sal — Aqı — Hyu — Ox — Pre — Re — Stu	1, 2, 4A and a It Crust (B11) uatic Invertebr drogen Sulfide idized Rhizos esence of Red cent Iron Red unted or Stress	rates (B13 e Odor (C2 pheres alc luced Iron uction in F sed Plants	(C4) Plowed S	t MLRA  g Roots (C3) oils (C6)	Secondary In Water-Stain  4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra	ndicators (2 or morned Leaves (B9) (Materns (B10)) In Water Table (C2) Visible on Aerial Incompanies (D2) Juitard (D3) Juitard (D3) Juitard (D5) Mounds (D6) (LRI	ne required  ILRA 1, 2  nagery (Cs
aturation Present? Yes No X Depth (inches): >16" Wetland Hydrology Present? Yes No X ncludes capillary fringe)  cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	PROLOGY  Vetland Hydromary Indica  Surface Notes that the second of the	rology Indicators: stors (any one indicators: Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) ained Leaves (B9) Vegetated Concar ations:	cator is su	ufficient)  — Wa — Sal — Aqı — Hyı — Ox — Pre — Re — Stu — Oth	1, 2, 4A and alt Crust (B11) uatic Invertebre drogen Sulfide idized Rhizos esence of Red cent Iron Red unted or Stress her (Explain in	rates (B13 e Odor (C2 pheres ald luced Iron uction in F sed Plants n Remarks	(C4) Plowed S	t MLRA  g Roots (C3) oils (C6)	Secondary In Water-Stain  4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra	ndicators (2 or morned Leaves (B9) (Materns (B10)) In Water Table (C2) Visible on Aerial Incompanies (D2) Juitard (D3) Juitard (D3) Juitard (D5) Mounds (D6) (LRI	ne required MLRA 1, 2 nagery (CS
cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	PROLOGY Vetland Hydromary Indica Surface Note that the second of the sec	rology Indicators: stors (any one indicators: water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) ained Leaves (B9) Vegetated Concar ations: Present? Yes	cator is su	Sal	1, 2, 4A and alt Crust (B11) uatic Invertebration Sulfide idized Rhizospesence of Reducent Iron Redunted or Stressper (Explain in Depth (inches)	rates (B13 e Odor (C2 pheres alc luced Iron uction in F sed Plants i Remarks	(C4) Plowed S	t MLRA  g Roots (C3) oils (C6)	Secondary In Water-Stain  4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra	ndicators (2 or morned Leaves (B9) (Materns (B10)) In Water Table (C2) Visible on Aerial Incompanies (D2) Juitard (D3) Juitard (D3) Juitard (D5) Mounds (D6) (LRI	ne required ILRA 1, 2  nagery (CS
	PROLOGY Petland Hydromary Indica Surface N High Water Ma Saturatio Water Ma Sedimen Drift Depo Algal Mar Iron Depo Surface S Water-St Sparsely Field Observa	rology Indicators:  tors (any one indicators: tors (any one indicators: Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) ained Leaves (B9) Vegetated Concators: Present? Yes resent? Yes	ve Surfac	Sal	1, 2, 4A and alt Crust (B11) uatic Invertebre drogen Sulfide idized Rhizos esence of Red cent Iron Red unted or Stress her (Explain in	rates (B13 e Odor (C2 pheres alc luced Iron uction in F sed Plants i Remarks  : >16"	(C4) Plowed S	g Roots (C3) oils (C6)	Secondary II Water-Stain 4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra Raised Ant Frost-Heav	ndicators (2 or mor ned Leaves (B9) (M 4B) Patterns (B10) In Water Table (C2) Visible on Aerial In ic Position (D2) Juitard (D3) al Test (D5) Mounds (D6) (LRI re Hummocks (D7)	re required ILRA 1, 2 nagery (CS
narks: On rise	PROLOGY Petland Hydromary Indica Surface North High Water Mary Sediment Drift Deputer Mary Algal Mary Iron Deputer Mary Surface Surface Surface Surface Water-Standard Surface Water Mary Sparsely Peturation Presidudes capil	rology Indicators:  tors (any one indicators: Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) ained Leaves (B9) Vegetated Concar ations: Present? Yes esent? Yes lary fringe)	ve Surfac	Sal	1, 2, 4A and alt Crust (B11) uatic Invertebre drogen Sulfide idized Rhizos esence of Reducent Iron Redunted or Stressmer (Explain in Depth (inches) Depth (inches)	rates (B13 e Odor (C' pheres alc luced Iron uction in F sed Plants n Remarks  : >1: >16"	(C4) Plowed S (D1) (LI	t MLRA  G Roots (C3)  oils (C6)  RR A)  Wetland Hydr	Secondary II Water-Stain 4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra Raised Ant Frost-Heav	ndicators (2 or mor ned Leaves (B9) (M 4B) Patterns (B10) In Water Table (C2) Visible on Aerial In ic Position (D2) Juitard (D3) al Test (D5) Mounds (D6) (LRI re Hummocks (D7)	nagery (CS
	PROLOGY Petland Hydromary Indica Surface North High Water Marks Sedimento Drift Deporation Deporation Preport Surface Surface Surface Surface Surface Surface Water Vater table Preport of the surface	rology Indicators:  tors (any one indicators: Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) ained Leaves (B9) Vegetated Concar ations: Present? Yes esent? Yes lary fringe)	ve Surfac	Sal	1, 2, 4A and alt Crust (B11) uatic Invertebre drogen Sulfide idized Rhizospesence of Reducent Iron Redunted or Stressper (Explain in Depth (inches) Depth (inches)	rates (B13 e Odor (C' pheres alc luced Iron uction in F sed Plants n Remarks  : >1: >16"	(C4) Plowed S (D1) (LI	t MLRA  G Roots (C3)  oils (C6)  RR A)  Wetland Hydr	Secondary II Water-Stain 4A and Drainage P Dry-Season Saturation Geomorphi Shallow Aq FAC-Neutra Raised Ant Frost-Heav	ndicators (2 or mor ned Leaves (B9) (M 4B) Patterns (B10) In Water Table (C2) Visible on Aerial In ic Position (D2) Juitard (D3) al Test (D5) Mounds (D6) (LRI re Hummocks (D7)	nagery (CS

Project/Site: Tillamook - Southern Flow Corridor		City/County:	: Tillamook		Sampling Date:	9/17/2014
Applicant/Owner: Tillamook County				State: OR	Sampling Point: P-32	
Investigator(s): Greta Presley and Shane Latimer		Sec	tion, Townsh	ip, Range: <u>1S 10W Sec 23</u>		
Landform (hillslope, terrace, etc.): diked floodpla	in	Loca	I relief (conca	ave, convex, none): flat	Slope (%):	0-1%
Subregion (LRR): Columbia Plateau (LRR B)	Lat:			45.4700 Long:	-123.87524 Datum	: NAD27
Soil Map Unit Name: (103A) Coquille silt loam, dik				NWI Classification:		
Are climatic / hydrologic conditions on the site typical for	or this time of y	/ear?	Yes 2	K No	(If no, explain in Remarks	s)
Are Vegetation, Soil, or Hydrology		significantly	disturbed?	Are "Normal Circumstance	es" Present? Yes X	No
Are Vegetation , Soil , or Hydrology					·	
SUMMARY OF FINDINGS – Attach site ma	p showing	sampling	point loca	ations, transects, import	ant features, etc.	
Hydrophytic Vegetation Present? Yes X	No	lo the S	ampled Area			
Hydric Soil Present? Yes X	No		ampied Area a Wetland?	Yes X	No	
Wetland Hydrology Present? Yes X	No					
Plot located approximately 25 feet southwest of P-31.						
VEGETATION						
	Absolute	Dominant	Indicator	Dominance Test worksheet		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Species		
1.				That Are OBL, FACW, or FAC	): <b>2</b>	(A)
2.				Total Number of Dominant		
3.				Species Across All Strata:	3	(B)
4.				Percent of Dominant Species	That	
Total Cov	er:		·	Are OBL, FACW, or FAC:	67%	_(A/B)
Shrub Stratum				Prevalence Index Workshee		
1				Total % Cover of:	Multiply by:	_
2				OBL species	_x1 =0	_
3				FACW species	x2 = 0	_
4				FAC species	_x3 =0	_
5				FACU species	_x4 =0	_
Total Cov	er:			UPL species	_x5 =0	
Herb Stratum	50	V	FAC	Column Totals: 0	_(A)0	_(B)
1. Agrostis capillaris	50	Y Y	FACU FACU	Prevalence Index = B/A =	#DIV/0!	_
2. Trifolium pratense	30	Y	FAC	Hardenbudia Vanadatian Ind		
3. Holcus lanatus	20	r	FAC	Hydrophytic Vegetation Ind		
4. Trifolium repens	<u>15</u>		FAC	X Dominance Test is #DIV/0! Prevalence Index		
5. Ranunculus repens			FAC			
6	<del></del>	-			aptation <sup>1</sup> (Provide supportir er on a separate sheet)	ng
7	<del></del>	-			• , ,	m)
8	116			Problematic Hydro	phytic Vegetation <sup>1</sup> (Explain	(1)
Total Covi <u>Woody Vine Stratum</u> 1.	er: 116			<sup>1</sup> Indicators of hydric soil and v present.	vetland hydrology must be	•
2				Hydrophytic		
Total Cov	er: 116			Vegetation		
% Bare Ground in Herb Stratum	% Cover of Bio	otic Crust	0	Present?	Yes X No	
Remarks: Plot located at edge of wetland.						

Profile Desc	cription: (Describe	to the de	epth needed to	document	the indica	ator or o	confirm the absence	e of indicators.)
Depth	Matrix		-	Redox Feat				·
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	– Texture	Remarks
<del></del>	10YR 2/2	90	7.5YR 3/4	10	С	М	SiL	
	10YR 3/2	60	7.5YR 3/4	40	С	М	SiL	
	10YR 3/2	60	10YR 3/3	40		М	SiL	
			-					
1 <sub>Type: C=C</sub>	oncontration D=Dan	lotion DI	M=Daduard Mat		vored or C	Control C	and Crains 21 agati	on: PL=Pore Lining, M=Matrix.
						oaleu S		
=	Indicators: (Application	able to a			-			Problematic Hydric Soils <sup>3</sup> :
Histoso	` '			ly Redox (S	•			2 cm Muck (A10) (LRR B)
	Epipedon (A2)			ped Matrix (				Red Parent Material (TF2)
	Histic (A3)			ny Mucky M	-		t MLRA 1)	Other (Explain in Remarks)
	gen Sulfide (A4)			ny Gleyed M	•	)		
	ed Below Dark Surfac	ce (A11)		eted Matrix			3	
	Dark Surface (A12)			ox Dark Surf		7)		of hydrophytic vegetation and
	Muck Mineral (S1)			eted Dark S		()		hydrology must be present,
	gleyed Matrix (S4)  Layer (if present):		Read	x Depression	ons (F8)		uniess	disturbed or problematic.
	Layer (ii present).							
Type: Depth (inche	<i>56).</i>					١,	lydric Soil Present	? Yes X No
Remarks:								. 100 <u>X</u> 110
HYDDOL OGY	,							
Wetland Hyd	drology Indicators:	ator is su	ufficient)				S	Secondary Indicators (2 or more required)
Wetland Hye Primary Indic	drology Indicators: cators (any one indicators)	ator is su		er-Stained L	eaves (B9	exce)		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1. 2.
Wetland Hyd Primary Indic	drology Indicators: cators (any one indicate e Water (A1)	ator is su	Wate	er-Stained L		9) (exce		Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hyde Primary Indice Surface High W	drology Indicators: cators (any one indicate e Water (A1) /ater Table (A2)	ator is su	Wate	2, 4A and		9) (exce	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B)
Wetland Hyd Primary Indic Surface High W Saturat	drology Indicators: cators (any one indicate e Water (A1) /ater Table (A2) tion (A3)	ator is su	Wate 1, Salt	, <b>2, 4A and</b> Crust (B11)	<b>4B</b> )		ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10)
Primary Indic Surface High W Saturat Water N	drology Indicators: cators (any one indicate water (A1) /ater Table (A2) tion (A3) Marks (B1)	ator is su	Wate 1, Salt ( Aqua	, <b>2, 4A and</b> Crust (B11) atic Inverteb	<b>4B</b> ) rates (B13	3)	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	ator is su	Wate Salt Aqua Hydr	, <b>2, 4A and</b> Crust (B11) atic Inverteboogen Sulfide	<b>4B</b> ) rates (B13 e Odor (C	3) 1)	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime Drift De	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	ator is su	Wate	, <b>2, 4A and</b> Crust (B11) atic Invertebrogen Sulfide ized Rhizos	<b>4B</b> ) rates (B13 e Odor (C pheres ald	3) 1) ong Livir	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High W Saturat Water N Sedime Drift De	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	ator is su	Wate 1, Salt c Aqua Hydr X Oxid Pres	, <b>2, 4A and</b> Crust (B11) atic Inverteboogen Sulfide	4B) rates (B13 e Odor (C pheres ald luced Iron	3) 1) ong Livir (C4)	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indic Surface High W Saturat Water M Sedime Drift De Algal M Iron De	cators (any one indicators: cators (any one indicators)  e Water (A1)  /ater Table (A2)  tion (A3)  Marks (B1)  ent Deposits (B2)  eposits (B3)  //at or Crust (B4)	ator is su	Wate	, <b>2, 4A and</b> Crust (B11) atic Invertebrogen Sulfide ized Rhizos ence of Red	4B) rates (B13 e Odor (C pheres ald luced Iron uction in F	3) 1) ong Livir (C4) Plowed S	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hyd Primary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5)	ator is su	Wate  1, Salt Aqua Hydr X Oxid Press Rece	, 2, 4A and Crust (B11) atic Invertebogen Sulfide ized Rhizos ence of Redent Iron Red	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  org Roots (C3)  Soils (C6)  LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hyde Primary Indices Surfaces High W Saturat Water M Sedimes Drift De Algal M Iron De Surfaces Water-S	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) e Soil Cracks (B6)		Wate 1, Salt e Aqua Hydr X Oxid Presi Rece Stun Othe	, 2, 4A and Crust (B11) atic Invertebrogen Sulfide ized Rhizos ence of Red ent Iron Red ted or Stress	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  org Roots (C3)  Soils (C6)  LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyd Primary Indice Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparse	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concaverations:	re Surfac	Wate	, 2, 4A and Crust (B11) atic Invertebrogen Sulfide ized Rhizos ence of Redent Iron Red ted or Stress r (Explain in	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants n Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  org Roots (C3)  Soils (C6)  LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyd Primary Indice Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparse	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concavervations: ter Present? Yes	ve Surfac	Wate	crust (B11) atic Invertebrogen Sulfider ized Rhizos ence of Red ent Iron Red ted or Stress r (Explain in	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants a Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  org Roots (C3)  Soils (C6)  LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyde Primary Indice Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparse Field Obser Surface Water table is	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concavervations: ter Present? Yes Present? Yes	ve Surfac	Wate	crust (B11) atic Invertebrogen Sulfider ized Rhizosence of Redent Iron Red ted or Stresser (Explain in	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants a Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	of MLRA  og Roots (C3)  Goils (C6)  RR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyd Primary Indice Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparse	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concaverations: ter Present? Present? Yes Present? Yes	ve Surfac	Wate	crust (B11) atic Invertebrogen Sulfider ized Rhizos ence of Red ent Iron Red ted or Stress r (Explain in	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants a Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  org Roots (C3)  Soils (C6)  LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyde Primary Indice Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparse Field Obser Surface Water table I Saturation Po (includes cap	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concaverations: ter Present? Present? Yes Present? Yes	ve Surfac	Wate	crust (B11) atic Invertebrogen Sulfide ized Rhizos ence of Red ent Iron Red ted or Stress r (Explain in pth (inches) pth (inches)	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants a Remarks    Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  og Roots (C3)  Soils (C6)  RR A)  Wetland Hydrold	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)
Primary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparsel Field Obsert Surface Water table I Saturation Pi (includes cap	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concavervations: ter Present? Present? Yes Present? Yes pillary fringe) orded Data (stream gater)	ve Surfac	Wate	crust (B11) atic Invertebrogen Sulfide ized Rhizos ence of Red ent Iron Red ted or Stress r (Explain in pth (inches) pth (inches)	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants a Remarks    Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  og Roots (C3)  Soils (C6)  RR A)  Wetland Hydrold	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyde Primary Indices Surfaces High W Saturat Water N Sedimes Drift Dee Algal M Iron De Surfaces Water-S Sparsee Field Observ Surface Water table If Saturation Poly (includes cap	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concavervations: ter Present? Present? Yes Present? Yes pillary fringe)	ve Surfac	Wate	crust (B11) atic Invertebrogen Sulfide ized Rhizos ence of Red ent Iron Red ted or Stress r (Explain in pth (inches) pth (inches)	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants a Remarks    Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  og Roots (C3)  Soils (C6)  RR A)  Wetland Hydrold	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyde Primary Indices Surfaces High W Saturat Water N Sedimes Drift Dee Algal M Iron De Surfaces Water-S Sparsee Field Observ Surface Water table If Saturation Poly (includes cap	cators (any one indicators: cators (any one indicators) e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concavervations: ter Present? Present? Yes Present? Yes pillary fringe) orded Data (stream gater)	ve Surfac	Wate	crust (B11) atic Invertebrogen Sulfide ized Rhizos ence of Red ent Iron Red ted or Stress r (Explain in pth (inches) pth (inches)	rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants a Remarks    Remarks	3) 1) ong Livir (C4) Plowed S s (D1) ( <b>L</b>	ot MLRA  og Roots (C3)  Soils (C6)  RR A)  Wetland Hydrold	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:	Tillamook - Southern	n Flow Corridor		City/County:	: Tillamook			Samp	ling Date:		9/17/2014
-	Tillamook County						State: OR	Samp	ling Point:	P-33	
	Greta Presley and S	hane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23				
Landform (hillslop		diked floodplain		_			, none): flat		Slop	oe (%):	0-1%
Subregion (LRR):	Columbia Plateau (L						Long:				NAD27
Soil Map Unit Nar		ille silt loam, diked	 k				NWI Classificatio				
•	rologic conditions on t			/ear?	Yes >		No		plain in R	emarks)	
	, Soil X				_						
Are Vegetation	, Soil						ed, explain any a				
7 to vegetation	, con	_, or riyulology		riatarany pro	obicinatio:	(II IICCU	ou, explain any a	nowers in rec	marks.)		
SUMMARY OF	F FINDINGS - At	tach site map	showing	sampling	point loca	ations, tra	ansects, impo	ortant feat	ures, etc	С.	
Hydrophytic Vege	tation Present?	Yes X No									
Hydric Soil Preser			X		ampled Area	3	Yes	No X			
Wetland Hydrolog			X X	within a	a Wetland?					_	
	oximately 3 feet south				b9 1.º						
VECETATION											
VEGETATION											
1			Absolute	Dominant	Indicator		ce Test workshe				
Tree Stratum (L	Jse scientific names.)		% Cover	Species?	Status?		f Dominant Speci				
1						That Are C	DBL, FACW, or F	AC:	2		(A)
2						Total Num	ber of Dominant				
3.						Species A	cross All Strata:		2		(B)
4.						Percent of	Dominant Speci	es That			
		Total Cover:					FACW, or FAC:		100%		(A/B)
Shrub Stratum						Prevalence	e Index Worksh	eet:			
1						Tota	al % Cover of:		Multiply	by:	=
2						OBL spec	ies	x1 =	0		_
3						FACW spe	ecies	x2 =	0		_
4						FAC spec	ies	x3 =	0		_
5						FACU spe	cies	x4 =	0		_
		Total Cover:				UPL speci	es	x5 =	0		_
Herb Stratum						Column To	otals: 0	(A)	0		(B)
1. Alopecurus ger	niculatus		80	Y	OBL	Preva	lence Index = B/A	A =	#DIV/0!		_
2. Cirsium arvens	ie .		20	Y	FAC						
3. Lolium perenne	<del>)</del>		10	N	FAC	Hydrophy	rtic Vegetation I	ndicators:			
4. Trifolium repen	IS		5	N	FAC	Х	Dominance Tes	t is >50%			
5.						#DIV/0!	Prevalence Inde	ex is ≤3.0 <sup>1</sup>			
6.							Morphological A	Adaptation 1 (	Provide si	innortin	a
7				<u> </u>			data in Remarks				,
8.							Problematic Hye	drophytic Ve	getation <sup>1</sup> (	Explain	)
		Total Cover:	115								
Woody Vine St	ratum					1Indicators	of hydric soil an	d wetland hy	drology m	ust be	
1.						present.	,	,	0,		
2.						I leader alea	-4! -				
_		Total Cover:	115			Hydrophy Vegetatio					
% Ba	re Ground in Herb Str		Cover of Bio		0	Present?	"	Yes X	No	)	
	altered soils - ALGE a				f trach and h		hat nerches prec				
Remarks. Highly a	allered soils - ALGE a	ppears to grow he	ile like a wet	su, on top or	i ilasii aliu bi	uneu nasn i	riat perches prec	ipitation.			

Profile Des	scription: (Describe	to the de	-			ator or c	onfirm the absen	ice of indicators.)
Depth	Matrix			edox Feat			_	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 3/2	95	7.5YR 2.5/3	5	<u>C</u>	M	gravelly SiL	
12-16	10YR 3/4	100					SiL	
						1	_	
							_	
							_	
							_	
								· <u></u>
<sup>1</sup> Type: C=0	Concentration, D=Dep	oletion, RI	M=Reduced Matr	x, CS=Cov	vered or C	Coated S	and Grains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soi	il Indicators: (Applic	cable to a	III LRRs, unless	otherwise	noted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histos	sol (A1)		Sandy	Redox (S	5)			2 cm Muck (A10) ( <b>LRR B</b> )
Histic	Epipedon (A2)		Stripp	ed Matrix (	S6)			Red Parent Material (TF2)
Black	Histic (A3)		Loam	/ Mucky Mi	neral (F1)	) (excep	t MLRA 1)	Other (Explain in Remarks)
	ogen Sulfide (A4)			Gleyed M		)		
	eted Below Dark Surfa	ice (A11)	Deple	ed Matrix (	(F3)		_	
	Dark Surface (A12)			Dark Surf				s of hydrophytic vegetation and
	y Muck Mineral (S1)			ed Dark Si	•	7)		d hydrology must be present,
	y gleyed Matrix (S4)		Redox	Depression	ons (F8)		unles	ss disturbed or problematic.
Restrictive	E Layer (if present):							
Туре:								
Depth (inch	nes):					l H	ydric Soil Preser	nt? Yes No X
HYDROLOG								
	ydrology Indicators							
	dicators (any one indicators	cator is su		0	(5.0			Secondary Indicators (2 or more required)
	ce Water (A1)			-Stained Le		) (excep	ot MLRA	Water-Stained Leaves (B9) (MLRA 1, 2,
	Water Table (A2)			2, 4A and 4	<b>4B</b> )			4A and 4B)
	ation (A3)			rust (B11)	. (5.46			Drainage Patterns (B10)
	r Marks (B1)			c Invertebr	•			Dry-Season Water Table (C2)
	nent Deposits (B2)			gen Sulfide				Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)			•		_	g Roots (C3)	Geomorphic Position (D2)
	Mat or Crust (B4)			nce of Red				Shallow Aquitard (D3)
	Deposits (B5)			t Iron Redu				FAC-Neutral Test (D5)
	ce Soil Cracks (B6)			d or Stress				Raised Ant Mounds (D6) (LRR A)
	r-Stained Leaves (B9)			(Explain in	Remarks	5)		Frost-Heave Hummocks (D7)
	sely Vegetated Conca	ve Surrac	e (B8)				Γ	
Field Obse	ervations: ater Present?        Yes	2	No X Dep	th (inches)				
Water table				th (inches)				
Saturation	Present? Yes			th (inches)			Wetland Hydro	ology Present? YesNo X
•	apillary fringe)		aitanina	al ab - t				
Describe Red	corded Data (stream o	gauge, mo	onitoring well, aer	aı pnotos,	previous i	ınspectio	ns), it available:	
Remarks: On	slope up to berm. Su	ıbsoil tras	h is likely perchin	g water sha	allowly.			
	-				-			

Project/Site:	Tillamook - Southern	Flow Corridor	1	City/County:	Tillamook			Sampling D	ate:	9/17/2014
Applicant/Owner:	Tillamook County						State: OR	Sampling Po	oint: P-34	
	Greta Presley and S	hane Latimer		Sec	tion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop		diked floodplain					, none): flat		Slope (%):	0-1%
Subregion (LRR):	Columbia Plateau (L			_	`		Long:		-	NAD27
Soil Map Unit Nar		ille silt loam, diked	 k			,	NWI Classification:			
•	ologic conditions on the			rear?	Yes		No		in Remarks)	)
	, Soil				_					
Are Vegetation	, Soil						ed, explain any ansv			
7 to vegetation	, oon	_, or riyurology		naturally pr	obicinatio:	(II HOCON	ca, explain any anov	vers in remark	J.)	
SUMMARY O	F FINDINGS - At	tach site map	showing	sampling	point loca	ations, tra	ansects, import	ant features	, etc.	
Hydrophytic Vege	tation Procent?	Yes X No								
Hydric Soil Prese				Is the Sa	ampled Area	a	Yes X	No		
•		<del></del>		within	a Wetland?		163 <u>v</u>	_ 140		
Wetland Hydrolog	<u> </u>	Yes X No								
Tiot located appre	oximately 10 feet south	111001011 00, 0 10	701 WOOL 01 10							
VEGETATION										
			Absolute	Dominant	Indicator	Dominan	ce Test worksheet:			
Troc Stratum (I	las scientifis names )		% Cover	Species?	Status?		f Dominant Species			
Tree Stratum (C	Jse scientific names.)						OBL, FACW, or FAC		•	(4)
1						Total Nium	har of Daminant		2	_(A)
2.							nber of Dominant cross All Strata:		•	(D)
3						Ороског	ioroco 7 iii otrata.		3	_(B)
4							f Dominant Species		<b>7</b> 0/	(A /D)
		Total Cover:				Are OBL,	FACW, or FAC:		67%	_(A/B)
Shrub Stratum						Prevalenc	ce Index Workshee	<b>t</b> ·		
1							al % Cover of:		tiply by:	
2						OBL spec		x1 =	0	=
2						FACW spec			0	=
J						FAC spec			0	-
4				-		FACU spec		_x3 = x4 =	0	-
o		Total Covers							0	-
Llarb Ctratura		Total Cover:				UPL speci		_x5 =		- (D)
Herb Stratum	_		50	V	FAC	Column To	-	- ' '	0	_(B)
Lolium perenne     Trifolium pratei			50 25	<u>Y</u> Y	FACU	Preva	lence Index = B/A =	#017	/0!	_
					OBL	I le colone colon	dia Manadadian Indi			
3. Alopecurus gei			20	Y	FAC		tic Vegetation Indi			
4. Holcus lanatus			15	N		X X	Dominance Test is			
5. Ranunculus re	oens		2	N	FAC	#DIV/U!	Prevalence Index i			
6					. ——		Morphological Ada			g
					. ——		data in Remarks o	-		,
8				-			Problematic Hydro	phytic Vegetation	on (Explain	)
		Total Cover:	112			4				
Woody Vine St	<u>ratum</u>						s of hydric soil and w	vetland hydrolog	y must be	
						present.				
2						Hydrophy	/tic			
		Total Cover:				Vegetatio				
	re Ground in Herb Str			otic Crust	0	Present?		Yes X	No	
Remarks: Mown of	or grazed in somewha	disturbed area (fa	arm road).							

(inches)	Color (moist)	%	Color (	moist)	%	Type <sup>1</sup>	Loc	<sup>2</sup> Texture	;		Remarks	
)-8	10YR 3/2	90	7.5YR 3/	/4	10	С	М	SiL				
-16	10YR 3/3	100						SiL				
Type: C=C	oncentration, D=D	epletion, RI	M=Reduce	ed Matrix	CS=Cov	vered or 0	Coated	Sand Grains. <sup>2</sup> l	ocation:	: PL=Pore	Lining, M=Mat	rix.
-	Indicators: (App	icable to a	all LRRs, i			-		Indicators			lydric Soils <sup>3</sup> :	
Histoso				=	Redox (S	-				-	10) ( <b>LRR B</b> )	
	Epipedon (A2)				d Matrix (		4 > 7				laterial (TF2)	
	Histic (A3)			-	-			pt MLRA 1)	Otr	ner (Explair	n in Remarks)	
	gen Sulfide (A4)	food (A11)	_	-	-	/fatrix (F2	<u>2)</u>					
	ed Below Dark Sur Dark Surface (A12)		X	-	d Matrix	face (F6)		3India	ators of h	hydrophytic	vegetation an	d
	Muck Mineral (S1)					urface (F0)					st be present,	u
	gleyed Matrix (S4)			-	Depression	•	.,		-		problematic.	
						()						
lestrictive l	Layer (if present)											
	Layer (if present)											
ype:								Hydric Soil Pre	esent?		Yes X	No
ype: Depth (inche								Hydric Soil Pre	esent?		Yes X	No
Type: Depth (inche marks:  TOROLOGY	es):							Hydric Soil Pre	esent?		Yes X	No
ype: Depth (inche marks:  DROLOGY Vetland Hyd	drology Indicator		ufficient)					Hydric Soil Pre		ondon Indi		
Depth (incher marks: DROLOGY Vetland Hydrimary India	drology Indicator		ufficient)	Water-S	Stained L	eaves (Bi			Seco		cators (2 or mo	ore required)
DROLOGY Vetland Hydrimary Indica	drology Indicator cators (any one ince		ufficient)					Hydric Soil Pre	Seco Wa	ater-Stained	cators (2 or mo	ore required)
DROLOGY Vetland Hydrimary Indicate Surface High W	drology Indicator cators (any one inc e Water (A1) /ater Table (A2)		ufficient)	1, 2,	4A and				Seco Wa	ater-Stained	cators (2 or mod Leaves (B9)	ore required)
DROLOGY Vetland Hydrimary Indication Surface High W Saturat	drology Indicator cators (any one ince water (A1) /ater Table (A2) tion (A3)		ufficient)	<b>1, 2,</b> Salt Cru	<b>4A and</b> st (B11)	<b>4B</b> )	9) ( <b>exc</b> o		Seco Wa	ater-Stained  4A and 4E  ainage Patt	cators (2 or mod Leaves (B9) of B) terns (B10)	ore required)
DROLOGY Vetland Hydrimary Indic Surface High W Saturat Water I	drology Indicator cators (any one inc e Water (A1) /ater Table (A2) tion (A3) Marks (B1)		ufficient)	<b>1, 2,</b> Salt Cru Aquatic	<b>4A and</b> sist (B11) Inverteb	<b>4B</b> ) rates (B1	9) ( <b>exc</b> o		Seco Wa Dra Dry	ater-Stained  4A and 4E  ainage Patt  y-Season V	cators (2 or mod Leaves (B9) of the cate (B10) vater Table (C2	ore required (MLRA 1, 2,
DROLOGY Vetland Hyd Surface High W Saturat Water I Sedime	drology Indicator cators (any one ince water (A1) /ater Table (A2) tion (A3)		ufficient)	1, 2, Salt Cru Aquatic Hydroge	<b>4A and</b> sist (B11) Inverteben Sulfide	<b>4B</b> ) rates (B1 e Odor (C	9) ( <b>exco</b>		Seco Wa Dra Dry Sat	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Vis	cators (2 or mod Leaves (B9) of B) terns (B10)	ore required (MLRA 1, 2,
DROLOGY Vetland Hyde Surface High W Saturat Water I Sedime Drift De	drology Indicator cators (any one inc e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		ufficient)	1, 2, Salt Cru Aquatic Hydroge Oxidize	4A and ast (B11) Invertebren Sulfided Rhizos	<b>4B</b> ) rates (B1 e Odor (C	9) ( <b>exco</b> 3) 21) long Liv	ept MLRA	Seco Wa Dra Dry Sat Ge	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Vis	cators (2 or mod Leaves (B9) of the cators (B10) of the cators (B1	ore required) (MLRA 1, 2,
DROLOGY Vetland Hyde Surface High W Saturat Water N Sedime Drift De	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		ufficient) ————————————————————————————————————	1, 2, Salt Cru Aquatic Hydroge Oxidize Presence	4A and ast (B11) Invertebren Sulfided Rhizospee of Red	<b>4B</b> ) rates (B1 e Odor (C pheres al	9) ( <b>exc</b> o	ept MLRA	Seco Wa Dra Dry Sai Ge Sha	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Vis	cators (2 or mod Leaves (B9) of the control of the	ore required) (MLRA 1, 2,
DROLOGY Vetland Hydrimary India Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6)	licator is su	ufficient)	1, 2, Salt Cru Aquatic Hydroge Oxidize Present Recent	4A and ast (B11) Invertebren Sulfided Rhizospee of Red	<b>4B</b> ) rates (B1 e Odor (C pheres al	9) ( <b>exco</b> 3) (21) long Liv n (C4) Plowed	ept MLRA ing Roots (C3) Soils (C6)	Secondary War	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Vis  comorphic F  allow Aquit  C-Neutral	cators (2 or mod Leaves (B9) of the control of the	ore required) (MLRA 1, 2, 2) Imagery (C9)
DROLOGY Vetland Hydrimary Indic Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B	dicator is su		1, 2, Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted	4A and ast (B11) Invertebrate Sulfided Rhizos are of Red or Stress	rates (B1 e Odor (C pheres al duced Iror uction in	9) (exce 3) C1) long Liv n (C4) Plowed ts (D1)	ept MLRA ing Roots (C3) Soils (C6)	Secondary Sate Shall FA	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Vis  comorphic F  allow Aquit  C-Neutral  ised Ant M	cators (2 or module de la cators (2 or module de la cators (89) of desired (810)  Vater Table (Catoria de la catoria de la cator	ore required) (MLRA 1, 2, 2) magery (C9
DROLOGY Vetland Hyde Marks:  DROLOGY Vetland Hyde Marks:  Surface High W Saturat Water I Sedime Drift De Algal M Iron De Surface Water-S Sparse	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B ely Vegetated Conce	dicator is su		1, 2, Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted	4A and ast (B11) Invertebrate Sulfided Rhizos are of Red or Stress	rates (B1 e Odor (C pheres al duced Iror uction in sed Plant	9) (exce 3) C1) long Liv n (C4) Plowed ts (D1)	ept MLRA ing Roots (C3) Soils (C6)	Secondary Sate Shall FA	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Visionorphic F  allow Aquit  C-Neutral T  ised Ant M	cators (2 or mod Leaves (B9) of the constant o	ore required) (MLRA 1, 2, 2) magery (C9
Depth (inche marks:  DROLOGY  Vetland Hyder Mater Mate	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B ely Vegetated Conce evations:	gicator is su	X X ——————————————————————————————————	1, 2, Salt Cru Aquatic Hydrogo Oxidize Presend Recent Stunted Other (E	4A and ast (B11) Invertebren Sulfided Rhizos de of Red or Stress	rates (B1 e Odor (C pheres al duced Iror uction in sed Plant n Remarks	9) (exce 3) C1) long Liv n (C4) Plowed ts (D1)	ept MLRA ing Roots (C3) Soils (C6)	Seco Wa Dra Dry Sat Ge Sha FA	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Visionorphic F  allow Aquit  C-Neutral T  ised Ant M	cators (2 or mod Leaves (B9) of the constant o	ore required) (MLRA 1, 2, 2) magery (C9
Depth (incher marks:  DROLOGY  Vetland Hyde  Primary India  Surface  High W  Saturat  Water I  Sedime  Drift De  Algal M  Iron De  Surface  Water-S  Sparse  Field Obser  Surface Water  Surface  Surface	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B ely Vegetated Conce vations: eer Present?	dicator is su		1, 2, Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (E	4A and ast (B11) Invertebrate Sulfided Rhizos are of Red or Stress	rates (B1 e Odor (C pheres al duced Iror uction in sed Plant n Remarks	9) (exce 3) C1) long Liv n (C4) Plowed ts (D1)	ept MLRA ing Roots (C3) Soils (C6)	Seco Wa Dra Dry Sat Ge Sha FA	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Visionorphic F  allow Aquit  C-Neutral T  ised Ant M	cators (2 or mod Leaves (B9) of the constant o	ore required) (MLRA 1, 2, 2) magery (C9)
Depth (inche marks:  DROLOGY  Vetland Hyde  Primary India  Surface  High W  Saturat  Water N  Sedime  Drift De  Algal M  Iron De  Surface  Water-S  Sparse  Field Obser  Gurface Water table I  Saturation P	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B ely Vegetated Conce vations: ter Present? Present? Y	gicator is sugar	x 	1, 2, Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (E	4A and ast (B11) Invertebren Sulfided Rhizos de of Red or Stress Explain in (inches)	rates (B1 e Odor (C pheres al duced Iror uction in sed Plant n Remarks	9) (exce 3) C1) long Liv n (C4) Plowed ts (D1)	ept MLRA ing Roots (C3) Soils (C6)	Secondary Walls Salam Shalam FA	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Visionorphic F  allow Aquit  C-Neutral  ised Ant Most-Heave H	cators (2 or module de Leaves (B9) de Leaves (B10) de le commune de la c	ore required) (MLRA 1, 2, 2) magery (C9
DROLOGY Vetland Hyde Marks:  DROLOGY Vetland Hyde Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparse Field Obser Surface Water table I Saturation P includes cap	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B ely Vegetated Conce vations: ter Present? Present? Y prillary fringe)	9)  ave Surfaces es  X	X	1, 2, Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted Other (E	4A and ast (B11) Invertebren Sulfider den Red or Stress Explain in (inches)	rates (B1 e Odor (C pheres al duced Iror uction in sed Plant n Remarks  ):  > 16"  > 16"	9) (exce 3) C1) long Liv n (C4) Plowed ts (D1) (s)	ept MLRA  ing Roots (C3)  Soils (C6) (LRR A)  Wetland Hy	Secondary Wall Dray Sate Shay FAI Rai Fro	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Visionorphic F  allow Aquit  C-Neutral  ised Ant Most-Heave H	cators (2 or module de Leaves (B9) de Leaves (B10) de le commune de la c	ore required) (MLRA 1, 2, 2) Imagery (C9) RR A)
DROLOGY Vetland Hyde Surface High W Saturat Water N Sedime Drift De Algal M Iron De Surface Water-S Sparse Geld Obser Surface Water table I Saturation P Includes cap	drology Indicator cators (any one ince e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B ely Vegetated Conce vations: ter Present? Present? Y	9)  ave Surfaces es  X	X	1, 2, Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted Other (E	4A and ast (B11) Invertebren Sulfider den Red or Stress Explain in (inches)	rates (B1 e Odor (C pheres al duced Iror uction in sed Plant n Remarks  ):  > 16"  > 16"	9) (exce 3) C1) long Liv n (C4) Plowed ts (D1) (s)	ept MLRA  ing Roots (C3)  Soils (C6) (LRR A)  Wetland Hy	Secondary Wall Dray Sate Shay FAI Rai Fro	ater-Stained  4A and 4E  ainage Patt  y-Season V  turation Visionorphic F  allow Aquit  C-Neutral  ised Ant Most-Heave H	cators (2 or module de Leaves (B9) de Leaves (B10) de le commune de la c	ore required) (MLRA 1, 2, 2) Imagery (C9) RR A)

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook				Sam	npling Da	ite:	9/17/2014
•	Tillamook County			, ,			State: OR				int: P-35	
Investigator(s):	Greta Presley and S	Shane Latimer		Sec	tion, Townsh	ip, Range:						
Landform (hillslop	-	diked floodplain		_	relief (conc						Slope (%):	0-1%
` .	Columbia Plateau (			_	`		Long:			.87524		NAD27
Soil Map Unit Nar		uille silt loam, diked	_				NWI Classifi					
•	ologic conditions on			/ear?	Yes		No				n Remarks)	)
Are Vegetation	, Soil				_		ormal Circun					
Are Vegetation		, or Hydrology					ed, explain a					
, as regulation	,			natarany pr		(	ou, oripiani a	,	0.0		',	
SUMMARY OF	F FINDINGS - A	ttach site map	showing	sampling	point loca	ations, tra	ansects, ii	mporta	nt fea	atures,	etc.	
Hydrophytic Vege		Yes X No		Is the Sa	ampled Area	а						
Hydric Soil Prese			o <u>X</u>		a Wetland?		Yes		No X			
Wetland Hydrolog	y Present?	YesN	o <u>X</u>									
Plot located appro	oximately 10 feet wes	t of berm on slope	near base,	approximate	ly 75 feet so	uth of grave	l road.					
VEGETATION												
VEGETATION						1						
			Absolute	Dominant	Indicator	Dominan	ce Test worl	ksheet:				
Tree Stratum (L	Jse scientific names.	)	% Cover	Species?	Status?		f Dominant S					
Picea sitchens			25	Y	FAC	That Are (	OBL, FACW,	or FAC:			2	(A)
2.						Total Num	ber of Domii	nant				-` ′
3.						Species A	cross All Str	ata:			2	(B)
4.						Percent of	f Dominant S	necies 7	— That			_ ` ′
		Total Cover	: 25				FACW, or FA		Παι	10	0%	(A/B)
						,	•					-` ′
Shrub Stratum						Prevalence	e Index Wo	rksheet	:			
1.						Tota	al % Cover o	f:		Multir	ply by:	
2.						OBL spec	ies		x1 =	•	0	-
3.						FACW sp	ecies		x2 =	-	0	-
4.						FAC spec			x3 =		0	-
5.						FACU spe			x4 =		0	-
		Total Cover	:			UPL spec	ies		x5 =		0	-
Herb Stratum						Column T	otals:	0	(A)	(	0	(B)
1. Phalaris arund	inacea		100	Υ	FACW	Preva	lence Index	= B/A =	`	#DIV/	0!	-` ′
2.								•				-
3.						Hydrophy	tic Vegetati	ion Indi	cators:			
4.						X	Dominance					
5.						#DIV/0!	Prevalence	Index is	s ≤3.0 <sup>1</sup>			
6.							Morphologi			(Provide	a sunnortin	a
7.							data in Ren					9
8.							Problemation	c Hydror	ohytic V	egetatio	n <sup>1</sup> (Explain	1)
		Total Cover	: 100						•	•	` '	,
Woody Vine St	ratum					<sup>1</sup> Indicators	s of hydric so	oil and w	etland h	nydrolog	v must be	
1.						present.	, , , , , , ,			,	,	
2.						I la calana an la c	-4!					
		Total Cover	125			Hydrophy Vegetatio						
% Ba	re Ground in Herb S		Cover of Bio	otic Crust	0	Present?	••		Yes X		No	
Remarks:										<del></del> -		
ixemarks.												

Profile Description:	•	spin needed to do	oumone the maious	J. O. OO	iiii tiio abooiit	
Depth	Matrix	Red	dox Features			
(inches) Color	r (moist) %	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16 10YR 3/3	3 100				SiL	
			<del></del>			
<sup>1</sup> Type: C=Concentrate	tion, D=Depletion, RN	M=Reduced Matrix,	CS=Covered or Co	ated Sand	Grains. <sup>2</sup> Locat	tion: PL=Pore Lining, M=Matrix.
Hydric Soil Indicato	rs: (Applicable to a	II LRRs, unless ot	herwise noted.)	ı	ndicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)			Redox (S5)			2 cm Muck (A10) ( <b>LRR B</b> )
Histic Epipedon	(A2)		Matrix (S6)			Red Parent Material (TF2)
Black Histic (A3	)	Loamy N	Mucky Mineral (F1)	except ML	.RA 1)	Other (Explain in Remarks)
Hydrogen Sulfid	le (A4)	Loamy (	Gleyed Matrix (F2)			
Depleted Below	Dark Surface (A11)	Depleted	d Matrix (F3)			
Thick Dark Surfa	ace (A12)	Redox D	Oark Surface (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and
Sandy Muck Mir	neral (S1)	Depleted	d Dark Surface (F7)		wetland	hydrology must be present,
Sandy gleyed M	latrix (S4)	Redox D	Depressions (F8)		unless	s disturbed or problematic.
Restrictive Layer (if	present):					
Type:						
Depth (inches):				Hydri	c Soil Present	? Yes No X
Remarks:						
HYDROLOGY						
HYDROLOGY Wetland Hydrology	Indicators:					
		fficient)				Secondary Indicators (2 or more required)
Wetland Hydrology	ny one indicator is su		tained Leaves (B9)	except M		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Primary Indicators (ar	ny one indicator is su (A1)	Water-S	tained Leaves (B9) <b>4A and 4B</b> )	except MI		
Wetland Hydrology Primary Indicators (at	ny one indicator is su (A1)	Water-S	4A and 4B)	except Mi		Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Primary Indicators (at Surface Water ( High Water Tab	ny one indicator is su (A1) le (A2)	Water-S 1, 2, Salt Cru	4A and 4B)	except MI		Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3)	ny one indicator is su (A1) le (A2)	Water-S 1, 2, Salt Cru Aquatic	<b>4A and 4B</b> ) st (B11)			Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10)
Primary Indicators (and Surface Water (and High Water Tab Saturation (A3) Water Marks (B	ny one indicator is su A1) le (A2) 1) sits (B2)	Water-S 1, 2, Salt Cru Aquatic Hydroge	<b>4A and 4B</b> ) st (B11) Invertebrates (B13)			Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indicators (and Surface Water (and High Water Tabe Saturation (A3) Water Marks (Baseline)	ny one indicator is su (A1) le (A2) 1) sits (B2)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized	4A and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1)	g Living Ro		Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (E	ny one indicator is su (A1) (A2) (Be (A2) (A2) (A2) (B3) (B3) (B4)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presence	4A and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor	g Living Ro	Doots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (E Algal Mat or Cru	ny one indicator is su (A1) (A2) (1) (1) (3) (3) (3) (3) (4) (4) (4) (4) (5) (4) (6) (7) (7) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presence Recent I	4A and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alon ee of Reduced Iron (	g Living Ro C4) owed Soils	Dots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Primary Indicators (and Surface Water (and High Water Tabe Saturation (A3) Water Marks (Bound Sediment Deposits (Bound Sediment	ny one indicator is sure.  (A1)  Ile (A2)  1)  sits (B2)  33)  ust (B4)  35)  acks (B6)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presence Recent I	4A and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alon e of Reduced Iron (Iron Reduction in Pla	g Living Ro C4) owed Soils	Dots (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)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Water-Stained L	ny one indicator is sure.  (A1)  Ile (A2)  1)  sits (B2)  33)  ust (B4)  35)  acks (B6)	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent I Stunted Other (E	4A and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor ee of Reduced Iron ( Iron Reduction in Pla or Stressed Plants	g Living Ro C4) owed Soils	Dots (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)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposit Drift Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Water-Stained L Sparsely Vegeta	ny one indicator is sure (A1) lle (A2)  1) sits (B2) 33) ust (B4) 35) acks (B6) Leaves (B9) ated Concave Surface	Water-S 1, 2, Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	4A and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor ee of Reduced Iron ( Iron Reduction in Pla or Stressed Plants ( Explain in Remarks)	g Living Ro C4) owed Soils	Dots (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)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposit Drift Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Water-Stained L Sparsely Vegeta	ny one indicator is sure (A1) lle (A2)  1) sits (B2) 33) ust (B4) 85) acks (B6) Leaves (B9) ated Concave Surface nt? Yes	Water-S	st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor e of Reduced Iron (Iron Reduction in Pla or Stressed Plants (Explain in Remarks)	g Living Ro C4) owed Soils	Dots (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)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposit Drift Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Water-Stained L Sparsely Vegeta	ny one indicator is sure (A1) lle (A2)  1) sits (B2) 33) ust (B4) 85) acks (B6) Leaves (B9) ated Concave Surface nt? Yes	Water-S	4A and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor ee of Reduced Iron ( Iron Reduction in Pla or Stressed Plants ( Explain in Remarks)	g Living Ro C4) owed Soils D1) (LRR	oots (C3) (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Water-Stained L Sparsely Vegeta Field Observations: Surface Water Preser Water table Present? Saturation Present? (includes capillary frir	ny one indicator is sure (A1) lle (A2)  1) sits (B2) 33) ust (B4) 35) acks (B6) Leaves (B9) ated Concave Surface nt? Yes Yes Yes Yes Inge)	Water-S	t (and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor e of Reduced Iron (alor Reduction in Place or Stressed Plants (alor Suplain in Remarks)  (inches): (inches): (inches): (inches): >16"	g Living Ro C4) owed Soils D1) (LRR	Doots (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)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Water-Stained L Sparsely Vegeta Field Observations: Surface Water Preser Water table Present? Saturation Present?	ny one indicator is sure (A1) lle (A2)  1) sits (B2) 33) ust (B4) 35) acks (B6) Leaves (B9) ated Concave Surface nt? Yes Yes Yes Yes Inge)	Water-S	t (and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor e of Reduced Iron (alor Reduction in Place or Stressed Plants (alor Suplain in Remarks)  (inches): (inches): (inches): (inches): >16"	g Living Ro C4) owed Soils D1) (LRR	Doots (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)
Primary Indicators (and Surface Water (and High Water Table Saturation (A3)  Water Marks (Bound Sediment Deposits (Bound Sediment Sedimen	ny one indicator is surfaction in the surfaction	Water-S	t (and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor e of Reduced Iron (alor Reduction in Place or Stressed Plants (alor Suplain in Remarks)  (inches): (inches): (inches): (inches): >16"	g Living Ro C4) owed Soils D1) (LRR	Doots (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)
Wetland Hydrology Primary Indicators (ar Surface Water (ar High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Water-Stained L Sparsely Vegeta Field Observations: Surface Water Preser Water table Present? Saturation Present? (includes capillary frir	ny one indicator is surfaction in the surfaction	Water-S	t (and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor e of Reduced Iron (alor Reduction in Place or Stressed Plants (alor Suplain in Remarks)  (inches): (inches): (inches): (inches): >16"	g Living Ro C4) owed Soils D1) (LRR	Doots (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)
Primary Indicators (ar Surface Water (a. High Water Tab Saturation (A3) Water Marks (B. Sediment Deposits (B. Algal Mat or Crulion Deposits (B. Surface Soil Crawater-Stained L. Sparsely Vegeta Field Observations: Surface Water Present Water table Present? Saturation Present? (includes capillary frir Describe Recorded Date	ny one indicator is surfaction in the surfaction	Water-S	t (and 4B) st (B11) Invertebrates (B13) en Sulfide Odor (C1) d Rhizospheres alor e of Reduced Iron (alor Reduction in Place or Stressed Plants (alor Suplain in Remarks)  (inches): (inches): (inches): (inches): >16"	g Living Ro C4) owed Soils D1) (LRR	Doots (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:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook				Samplin	g Date:	9/17/2014
Applicant/Owner:	Tillamook County						State: Of	R	Samplin	g Point: P-36	
Investigator(s):	Greta Presley and	Shane Latimer		Sect	ion, Townsh	ip, Range:	1S 10W S	Sec 23			
Landform (hillslop	e, terrace, etc.):	diked floodplain		Local	relief (conca	ave, convex	, none): fla	ıt		Slope (%):	0-1%
Subregion (LRR):	Columbia Plateau (	LRR B)	Lat:			45.4700	Long:		-123.8	B85 Datum	: NAD27
Soil Map Unit Nar	ne: (103A) Coq	uille silt loam, diked	- 				NWI Classi				
Are climatic / hydr	ologic conditions on	the site typical for t	his time of y	ear?	Yes 2	X	No	•	(If no, expl	ain in Remarks	;)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	ormal Circu	ımstances	" Present?	Yes X	No
Are Vegetation	, Soil					(If neede	ed, explain	any answ	ers in Rem	arks.)	
SUMMARY OF	FINDINGS – A	<del></del>				ations, tra	ansects,	importa	nt featur	es, etc.	
Hydrophytic Vege	tation Present?	Yes X No	,								
Hydric Soil Preser		Yes X No			ampled Area	a	Yes X		No		
Wetland Hydrolog		Yes X No		within a	a Wetland?		<u>x</u>				
	oximately 12 feet wes										
VEGETATION											
			Absolute	Dominant	Indicator	Dominan	ce Test wo	rksheet:			
Tree Stratum (I	Ise scientific names.	١	% Cover	Species?	Status?	Number o	f Dominant	Species			
1. Picea sitchensi		)	40	Y	FAC		OBL, FACW	•		2	(A)
2.	<u>s</u>				170	Total Num	ber of Dom	ninant			_(A)
3.				-	· <del></del>		cross All St			2	(B)
J				-	· <del></del>						_ <sup>(D)</sup>
4		Total Cover:	40		· <del></del>		f Dominant FACW, or F	•	hat	100%	(A/B)
		Total Cover.				Ale Obl.,	I ACVV, OI I	AC.		100 /6	_(A/D)
Shrub Stratum						Prevalenc	ce Index W	orksheet	-		
1.							al % Cover			Multiply by:	
2.				-	· <del></del>	OBL spec			x1 =	0	_
3.				-	· <del></del>	FACW spe			x2 =	0	_
4				-	· <del></del>	FAC spec			x3 =	0	_
5.					· <del></del>	FACU spe			x4 =	0	_
·		Total Cover:			· <del></del>	UPL speci			x5 =	0	_
Herb Stratum						Column To			(A)	0	(B)
Phalaris arundi	inacea		100	Υ	FACW		lence Index		` '	DIV/0!	_(-/
2.											_
2		_				Hydrophy	tic Vegeta	tion Indic	ators:		
4						X	Dominano	ce Test is	>50%		
						#DIV/0!	Prevalenc	e Index is	≤3.0 <sup>1</sup>		
							Morpholog	nical Adar	ntation <sup>1</sup> (Pr	ovide supportir	าต
7									on a separ		19
8.							Problema	tic Hydrop	hytic Vege	tation <sup>1</sup> (Explain	n)
		Total Cover:	100								
Woody Vine St	ratum					<sup>1</sup> Indicators	s of hydric s	soil and we	etland hydr	ology must be	ł
1.	<u></u>					present.	,		,	0,	
2.						Hydrophy	#io				
		Total Cover:	140			Vegetatio					
% Ba	re Ground in Herb S		Cover of Bio	otic Crust	0	Present?			Yes X	No	
Remarks: Mown o	or grazed in somewh	at disturbed area (fa	arm road).								
	9										

(inches)	Color (moist)	%	Color (ı	moist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-16	10YR 3/2	70	7.5YR 3/	<u>'4</u> 20	С	М	SiL			
			10YR 3/6	6 10	С	М				
								_		
								_		
Type: C=0	Concentration, D=De	oletion. R	M=Reduce	ed Matrix CS=Cov	ered or Co	ated Sa	and Grains. <sup>2</sup> Loc	cation: PI =Po	re Lining M=Matrix	
	I Indicators: (Applie								: Hydric Soils³:	
-	sol (A1)	Jabie to a	III LIXIXS, C	Sandy Redox (St	-		ilidicators to		(A10) ( <b>LRR B</b> )	
	Epipedon (A2)			Stripped Matrix (\$	-			_	Material (TF2)	
	Histic (A3)			Loamy Mucky Mi	,	(except	MLRA 1)		lain in Remarks)	
	ogen Sulfide (A4)			Loamy Gleyed M		(			,	
	ted Below Dark Surfa	ace (A11)		Depleted Matrix (	-					
	Dark Surface (A12)	,	X	Redox Dark Surfa			<sup>3</sup> Indicato	ors of hydrophy	ytic vegetation and	
	y Muck Mineral (S1)			Depleted Dark St					nust be present,	
	y gleyed Matrix (S4)			Redox Depression				ess disturbed o	•	
	Lover (if present)									
estrictive	Layer (if present):									
	Layer (II present):									
ype: epth (inch						H	ydric Soil Prese	nt?	Yes X	No
ype: Depth (inch marks:	nes):					Н	ydric Soil Prese	nt?	Yes X	No
ype: Depth (inch marks:	nes):Y					H	ydric Soil Prese	nt?	Yes X	No
ype: pepth (inch marks:  DROLOG Vetland H	nes): Y ydrology Indicators		ıfficient)			H	ydric Soil Prese			
ype: lepth (inch marks: DROLOG Vetland H	nes):Y		ufficient)	Water-Stained Le	eaves (B9)			Secondary In	Yes X  Indicators (2 or more ned Leaves (B9) (ML	required
ype: pepth (inch marks:  DROLOG  Vetland H rimary Inc Surface	Y ydrology Indicators dicators (any one indicators		ufficient)	Water-Stained Le				Secondary In	ndicators (2 or more ned Leaves (B9) ( <b>ML</b>	required
ype: epth (inch narks:  DROLOG /etland H rimary Inc Surfac High \	Y ydrology Indicators dicators (any one indicators (A1)		ufficient)					Secondary Ir Water-Stair 4A and	ndicators (2 or more ned Leaves (B9) ( <b>ML</b>	required
ppe: epth (inch narks: DROLOG /etland H rimary Inc Surfac High \	Y ydrology Indicators dicators (any one indicators (A1) Water Table (A2)		ufficient)	1, 2, 4A and 4	4B)	(excep		Secondary Ir Water-Stair <b>4A and</b> Drainage P	ndicators (2 or more ned Leaves (B9) ( <b>ML</b> <b>4B</b> )	required
pype: epth (inch narks:  DROLOG /etland H rimary Inc Surfac High \ Satura Water	y ydrology Indicators dicators (any one indicators (A1) Water Table (A2) ation (A3)		ufficient)	<b>1, 2, 4A and 4</b> Salt Crust (B11)	<b>4B</b> ) rates (B13)	(excep		Secondary Ir Water-Stair 4A and Drainage Pa	ndicators (2 or more ned Leaves (B9) ( <b>ML</b> <b>4B</b> ) latterns (B10)	required RA 1, 2,
pype: epth (inch marks:  DROLOG /etland H rimary Inc Surfac High \ Satura Water Sedim	y ydrology Indicators dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1)		ufficient)	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr	<b>4B</b> ) rates (B13) e Odor (C1)	(excep	t MLRA	Secondary Ir Water-Stair 4A and Drainage Pour Dry-Seasor Saturation	ndicators (2 or more ned Leaves (B9) ( <b>ML</b> <b>4B</b> ) atterns (B10) n Water Table (C2)	required RA 1, 2,
pype: epth (inch marks:  DROLOG Vetland H rimary Inc Surfac High \ Satura Water Sedim Drift D	y ydrology Indicators dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) ment Deposits (B2)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	ates (B13) Odor (C1) Oheres alor	(excep	t MLRA	Secondary Ir Water-Stair 4A and Drainage Pour Dry-Seasor Saturation	ndicators (2 or more ned Leaves (B9) ( <b>ML 4B</b> ) latterns (B10) n Water Table (C2) Visible on Aerial Ima	required RA 1, 2,
DROLOG  DROLOG  Vetland H  Primary Inc  Surfac  High \ Satura  Water  Sedim  Drift E  Algal	y ydrology Indicators dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	ates (B13) e Odor (C1) oheres alor uced Iron (	(excep ) ng Living C4)	t MLRA  G Roots (C3)	Secondary Ir Water-Stair 4A and Drainage Pa Dry-Seasor Saturation V Geomorphic	ndicators (2 or more ned Leaves (B9) ( <b>ML 4B</b> ) latterns (B10) n Water Table (C2) Visible on Aerial Ima	required)
DROLOG Vetland H Surfac High \ Satura Water Sedim Drift D Algal Iron D	y ydrology Indicators dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)			1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red	ates (B13) Odor (C1) Oheres alor uced Iron ( uction in Pl	(excep ) ng Living C4) owed S	g Roots (C3)	Secondary Ir Water-Stair 4A and Drainage Poly-Seasor Saturation V Geomorphic Shallow Aq FAC-Neutra	ndicators (2 or more ned Leaves (B9) (ML 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imac Position (D2) uitard (D3)	required RA 1, 2,
pype: epth (inch marks:  DROLOG /etland H rimary Inc Surfac High \ Satura Water Sedim Drift E Algal Iron D Surfac	y ydrology Indicators dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	cator is su		1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu	ates (B13) Codor (C1) Coheres alor Cuced Iron ( Cuction in Placed Plants	(excep ) ng Living C4) owed S (D1) (LI	g Roots (C3)	Secondary Ir Water-Stair 4A and Drainage Portion of Saturation of Geomorphic Shallow Aq FAC-Neutra	ndicators (2 or more ned Leaves (B9) (ML 4B) latterns (B10) latterns (B10) latterns (B10) latterns (D2) Visible on Aerial Imalic Position (D2) uitard (D3) lat Test (D5)	required RA 1, 2,
DROLOG  Wetland H Primary Inc Satura Water Sedim Drift D Algal Iron D Surfac Water	y ydrology Indicators dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6)	cator is su	<u>x</u>	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress	ates (B13) Codor (C1) Coheres alor Cuced Iron ( Cuction in Placed Plants	(excep ) ng Living C4) owed S (D1) (LI	g Roots (C3)	Secondary Ir Water-Stair 4A and Drainage Portion of Saturation of Geomorphic Shallow Aq FAC-Neutra	ndicators (2 or more ned Leaves (B9) (ML 4B) atterns (B10) n Water Table (C2) Visible on Aerial Ima c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) RA 1, 2,
DROLOG  DROLOG  Vetland H  Drimary Inc  Surfac  High \ Satura  Water  Sedim  Drift D  Algal  Iron D  Surfac  Water  Surfac  Surfac  Surfac  Field Obse	y ydrology Indicators dicators (any one indicators (B2) ation (A3)  Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6) r-Stained Leaves (B9) Sely Vegetated Concators:	cator is su	x	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	ates (B13) Codor (C1) Coheres alor uced Iron ( uction in Placed Plants Remarks)	(excep ) ng Living C4) owed S (D1) (LI	g Roots (C3)	Secondary Ir Water-Stair 4A and Drainage Portion of Saturation of Geomorphic Shallow Aq FAC-Neutra	ndicators (2 or more ned Leaves (B9) (ML 4B) atterns (B10) n Water Table (C2) Visible on Aerial Ima c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) RA 1, 2,
DROLOG  DROLOG  Vetland H  Primary Inc  Surfac  High V  Satura  Water  Sedim  Drift E  Algal  Iron D  Surfac  Water  Surfac  Surfac  Water  Spars  Field Obse  Burface Wa	y ydrology Indicators dicators (any one indicators (B2) and (any one indicators) and (	) ive Surfac	x	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	ates (B13) Codor (C1) Coheres alor uced Iron ( uction in Plated Plants Remarks)	(excep ) ng Living C4) owed S (D1) (LI	g Roots (C3)	Secondary Ir Water-Stair 4A and Drainage Portion of Saturation of Geomorphic Shallow Aq FAC-Neutra	ndicators (2 or more ned Leaves (B9) (ML 4B) atterns (B10) n Water Table (C2) Visible on Aerial Ima c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) RA 1, 2,
DROLOG  DROLOG  Vetland H  Primary Inc  Surfac  High V  Satura  Water  Sedim  Drift D  Algal  Iron D  Surfac  Water  Surfac  Surfac  Water  Spars  Field Obse  Surface Water	y ydrology Indicators dicators (any one indicators (any one indicators)  Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6) r-Stained Leaves (B9) Sely Vegetated Concators Servations: Servat	)  ive Surfaces  s s	x	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	ates (B13) codor (C1) coheres alor uced Iron ( uction in Pl sed Plants Remarks)	(excep ) ng Living C4) owed S (D1) (LI	g Roots (C3)	Secondary Ir Water-Stair 4A and Drainage P Dry-Seasor Saturation V Geomorphic Shallow Aq FAC-Neutra Raised Ant Frost-Heave	ndicators (2 or more ned Leaves (B9) (ML 4B) ratterns (B10) n Water Table (C2) Visible on Aerial Imac Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR e Hummocks (D7)	required) RA 1, 2,
DROLOG Vetland H Primary Inc Satura Water Sedim Drift D Algal Iron D Surfac Water Spars Geld Obse Surface Water table Saturation Includes ca	y ydrology Indicators dicators (any one indicators (B2) and indicators (B3) Mat or Crust (B4) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (B6) Deposits (B6) Deposits (B7) Deposits (B8) Deposits (B8) Deposits (B9) Deposits (	) ve Surfaces s s	x	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in  Depth (inches) Depth (inches)	ates (B13) c Odor (C1) cheres alor uced Iron ( uction in Pl sed Plants Remarks)	(excep ) ng Living C4) owed S (D1) (LI	g Roots (C3) oils (C6) RR A) Wetland Hydr	Secondary Ir Water-Stair 4A and Drainage P Dry-Seasor Saturation V Geomorphic Shallow Aq FAC-Neutra Raised Ant Frost-Heave	ndicators (2 or more ned Leaves (B9) (ML 4B) ratterns (B10) n Water Table (C2) Visible on Aerial Imac Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR e Hummocks (D7)	required RA 1, 2,
DROLOG  DROLOG  Vetland H Primary Inc Satura Water Sedim Drift D Algal Iron D Surfac Water Spars  Geld Obse Surface Water table Saturation Includes ca	y ydrology Indicators dicators (any one indicators (any one indica	) ve Surfaces s s	x	1, 2, 4A and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in  Depth (inches) Depth (inches)	ates (B13) c Odor (C1) cheres alor uced Iron ( uction in Pl sed Plants Remarks)	(excep ) ng Living C4) owed S (D1) (LI	g Roots (C3) oils (C6) RR A) Wetland Hydr	Secondary Ir Water-Stair 4A and Drainage P Dry-Seasor Saturation V Geomorphic Shallow Aq FAC-Neutra Raised Ant Frost-Heave	ndicators (2 or more ned Leaves (B9) (ML 4B) ratterns (B10) n Water Table (C2) Visible on Aerial Imac Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR e Hummocks (D7)	required RA 1, 2,

Project/Site:	Tillamook - Souther	n Flow Corridor		City/County:	Tillamook			Sampling I	Date:	9/17/2014
Applicant/Owner:	Tillamook County						State: OR	Sampling F	Point: P-37	
Investigator(s):	Greta Presley and S	Shane Latimer		Sect	ion, Townsh	ip, Range:	1S 10W Sec 23			
Landform (hillslop	e, terrace, etc.):	diked floodplain		Loca	relief (conca	ave, convex	, none): flat		Slope (%):	0-1%
Subregion (LRR):	Columbia Plateau (I	_RR B)	Lat:			45.4700	Long:	-123.87524	1 Datum:	NAD27
Soil Map Unit Nan	ne: <u>(103A) Coqu</u>	iille silt loam, diked	i				NWI Classification:	PEMC		
Are climatic / hydr	ologic conditions on	the site typical for t	this time of y	ear?	Yes 2	X	No	(If no, explain	ı in Remarks)	)
Are Vegetation	, Soil X	, or Hydrology		significantly	disturbed?	Are "No	ormal Circumstance	s" Present?	Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pro	oblematic?	(If neede	ed, explain any ansv	vers in Remarl	ks.)	
SUMMARY OF	FINDINGS - A	tach site map	showing	sampling	point loca	ations, tra	ansects, importa	ant features	s, etc.	
Hydrophytic Vege	tation Procent?	Yes X No	`							
Hydric Soil Preser		Yes X No		Is the Sa	ampled Area	3	Yes X	No		
Wetland Hydrolog		Yes X No		within a	a Wetland?		163 <u>X</u>			
	uth end of fill, nearest	-								
VEGETATION										
			A b = = 1: .4 =	Daminant	la di sata a	Dominon	a Taat was babaat			
			Absolute % Cover	Dominant Species?	Indicator Status?		ce Test worksheet:			
Tree Stratum (U	lse scientific names.)			-			f Dominant Species DBL, FACW, or FAC			
1								· —	2	_(A)
2					. ——		ber of Dominant cross All Strata:		_	<b>(5</b> )
3.						Opcoics A	cioss Ali Otiata.		2	_(B)
4		Total Cover:					Dominant Species FACW, or FAC:		100%	_(A/B)
Shrub Stratum						Prevalenc	e Index Workshee	t:		
1.							al % Cover of:		Itiply by:	
2.		_		-		OBL speci		x1 =	0	-
3.					. ———	FACW spe		x2 =	0	-
4.						FAC speci	ies	x3 =	0	-
5.						FACU spe		x4 =	0	-
		Total Cover:				UPL speci	es	x5 =	0	<u>-</u>
Herb Stratum						Column To	otals: 0	(A)	0	(B)
1. Juncus effusus			55	Y	FACW	Preva	lence Index = B/A =	#DI	V/0!	_
2. Potentilla anse	rina		40	Y	OBL					
3. Lotus cornicula	tus		5	N	FAC	Hydrophy	rtic Vegetation Indi	cators:		
4						X	Dominance Test is			
5				-		#DIV/0!	Prevalence Index i	s ≤3.0 <sup>1</sup>		
6							Morphological Ada			g
7							data in Remarks or			
8							Problematic Hydro	phytic Vegetat	ion¹ (Explain	1)
Woody Vine St	<u>ratum</u>	Total Cover:	100			<sup>1</sup> Indicators present.	s of hydric soil and w	etland hydrolo	ogy must be	
2.					-		4!-			
		Total Cover:	100	-		Hydrophy Vegetatio				
% Ba	re Ground in Herb St		Cover of Bio	otic Crust	0	Present?		Yes X	No	
Remarks:										

16		%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
16	10YR 3/2	90	10YR 3/4	10 C	M	SiL	many organics
	10YR 3/1	100				gravelly sand	mottles on gravel faces
	-				Coated Sa		ion: PL=Pore Lining, M=Matrix.
ydric Soil Histoso	Indicators: (Applic	cable to al		herwise noted.) Redox (S5)			Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) (LRR B)
	Epipedon (A2)			Matrix (S6)			Red Parent Material (TF2)
	Histic (A3)			Mucky Mineral (F1	) (excent	MI RA 1)	Other (Explain in Remarks)
	gen Sulfide (A4)			Gleyed Matrix (F2		<b>.</b>	Caron (Explain in Nomarka)
_	ed Below Dark Surfa	ice (A11)		d Matrix (F3)	,		
	od Below Bark Surfa Dark Surface (A12)	(/ (/ / /		Dark Surface (F6)		<sup>3</sup> Indicators	of hydrophytic vegetation and
_	Muck Mineral (S1)			d Dark Surface (F	7)		hydrology must be present,
	gleyed Matrix (S4)			Depressions (F8)	,		disturbed or problematic.
_	Layer (if present):			r		550	
pe:	, , ,						
pe. epth (inche	es):				Hv	dric Soil Present	? Yes X No
etland Hy	drology Indicators:						
etland Hy mary Indi	rdrology Indicators: cators (any one indic						Secondary Indicators (2 or more require
etland Hy mary Indi Surface	rdrology Indicators: cators (any one indic e Water (A1)		Water-S	tained Leaves (B9	) (except		Water-Stained Leaves (B9) (MLRA 1,
etland Hy mary Indi Surface High W	rdrology Indicators: cators (any one indic e Water (A1) Vater Table (A2)		Water-S 1, 2,	4A and 4B)	) (except		Water-Stained Leaves (B9) (MLRA 1, 4A and 4B)
etland Hy mary Indi Surface High W	rdrology Indicators: cators (any one indic e Water (A1) Vater Table (A2) tion (A3)		Water-S 1, 2, Salt Cru	<b>4A and 4B</b> ) st (B11)			Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10)
mary Indi Surface High W Satura	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1)		Water-S 1, 2, Salt Cru Aquatic	<b>4A and 4B</b> ) st (B11) Invertebrates (B13	3)	MLRA	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
etland Hy mary Indi Surface High W Satura Water Sedime	cators (any one indicators) cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		Water-S 1, 2, Salt Cru Aquatic Hydroge	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C	3) 1)	MLRA	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
etland Hy imary Indi Surface High W Satura Water Sedime	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water-S 1, 2, Salt Cru Aquatic Hydroge X Oxidized	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald	3) 1) ong Living	MLRA	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2)
etland Hy imary Indi Surface High W Satura Water Sedime Drift De	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)		Water-S 1, 2, Salt Cru Aquatic Hydroge X Oxidized Presence	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron	3) 1) ong Living (C4)	MLRA	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3)
etland Hy imary Indi Surface High W Satura Water Sedime Drift De Algal M	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5)		Water-S 1, 2, Salt Cru Aquatic Hydroge X Oxidized Presend Recent	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron Iron Reduction in F	3) 1) ong Living (C4) Plowed Sc	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
etland Hy mary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4) eposits (B5) e Soil Cracks (B6)	cator is suf	Water-S 1, 2, Salt Cru Aquatic Hydroge X Oxidized Presenc Recent Stunted	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron fron Reduction in F or Stressed Plants	3) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Ca) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
etland Hy imary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water-	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5)	cator is suf	Water-S 1, 2, Salt Cru Aquatic Hydroge X Oxidized Presenc Recent Stunted Other (E	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron Iron Reduction in F	3) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
etland Hy imary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water- Sparse	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar	cator is suf	Water-S 1, 2, Salt Cru Aquatic Hydroge X Oxidized Presenc Recent Stunted Other (E	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron fron Reduction in F or Stressed Plants	3) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
imary Indi Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water- Sparse eld Obser	rdrology Indicators: cators (any one indice e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) Stained Leaves (B9) ely Vegetated Concar rvations: ter Present? Yes	cator is suf	Water-S  1, 2, Salt Cru Aquatic Hydroge X Oxidized Presend Recent Stunted Other (E	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron Iron Reduction in F or Stressed Plants explain in Remarks (inches):	3) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
etland Hy imary Indi  Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water- Sparse eld Obser urface Wat ater table	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) eStained Leaves (B9) ely Vegetated Concar rvations: ter Present? Yes Present? Yes	ve Surface	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   X   Oxidized   Presenc   Recent   Stunted   Other (E   E (B8)   E (B8)   Depth   No   X   Depth   Depth   Depth   Depth   Common   Common   Depth   Depth   Depth   Depth   Common   Commo	st (B11) Invertebrates (B13) en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron fron Reduction in F or Stressed Plants explain in Remarks  (inches):   >16"	3) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	i MLRA	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
etland Hy imary Indi  Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water- Sparse eld Obser ater table sturation P	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) eStained Leaves (B9) ely Vegetated Concar rvations: ter Present? Yes Present? Yes	ve Surface	Water-S   1, 2,   Salt Cru   Aquatic   Hydroge   X   Oxidized   Presenc   Recent   Stunted   Other (E   E (B8)   E (B8)   Depth   No   X   Depth   Depth   Depth   Depth   Common   Common   Depth   Depth   Depth   Depth   Common   Commo	4A and 4B) st (B11) Invertebrates (B13 en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron Iron Reduction in F or Stressed Plants explain in Remarks (inches):	3) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
etland Hy imary Indi  Surface High W Satura Water Sedime Drift De Algal M Iron De Surface Water- Sparse eld Obser ater table sturation P cludes ca	rdrology Indicators: cators (any one indicators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) eStained Leaves (B9) ely Vegetated Concarvations: ter Present? Present? Yes Present? Yes	ve Surface	Water-S	st (B11) Invertebrates (B13) en Sulfide Odor (C d Rhizospheres ald e of Reduced Iron fron Reduction in F or Stressed Plants explain in Remarks  (inches): (inches): (inches): >16"	3) 1) ong Living (C4) Plowed So s (D1) ( <b>LF</b>	i MLRA  I Roots (C3)  Dils (C6)  RR A)  Wetland Hydrole	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Tillamook - Southern Flow Corridor  Applicant/Owner: Tillamook County  Investigator(s): Greta Presley and Shane Latimer  Landform (hillslope, terrace, etc.): diked floodplain  Subregion (LRR): Columbia Plateau (LRR B)		Local	tion, Townsh	ip, Range: ave, convex,	State: OR 1S 10W Sec 23 none): flat Long:	Slo	t: P-38	
Soil Map Unit Name: (103A) Coquille silt loam, diked					IWI Classification:		Datuiii.	INADZI
		roor?	Voc. Y			•	Domorko)	
Are climatic / hydrologic conditions on the site typical for the large variety of the large v			_	_	-	(If no, explain in I	,	
Are Vegetation , Soil , or Hydrology Are Vegetation , Soil , or Hydrology					d, explain any answ		·s <u>^</u>	_INU
Are vegetation, Soil, or rigurology		naturally pro	obiematic:	(II Heede	u, explain any answ	reis iii Reiliaiks.)		
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	ations, tra	nsects, importa	ant features, e	tc.	
Hydrophytic Vegetation Present? Yes X No		le the St	ampled Area	-				
Hydric Soil Present? YesNo	<u> X                                   </u>		ampied Area a Wetland?	a	Yes X	No		
Wetland Hydrology Present? Yes X No	D							
Plot located approximately 8 feet northwest of P-37 at ba	se of road fil	i.						
VEGETATION	Absolute	Dominant	Indicator	Dominanc	e Test worksheet:			
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?		Dominant Species			
1		-		That Are O	BL, FACW, or FAC	: <b>2</b>		(A)
2				Total Numb	per of Dominant			_(/ \/
3.					cross All Strata:	3		(B)
4.				Porcent of	Dominant Species			_(-/
Total Cover:	·	_			ACW, or FAC:	67%	, 0	_(A/B)
Shrub Stratum				Provolence	e Index Workshee	4.		
1					% Cover of:	 Multiply	, by:	
2				OBL specie		x1 = <b>0</b>	by.	-
3				FACW specific		x2 = <b>0</b>		=
4				FAC specie		x3 = 0		=
5		-		FACU spec	-	x4 = <b>0</b>		_
Total Cover:		-		UPL specie		x5 = <b>0</b>		_
Herb Stratum	·			Column To		(A) <b>0</b>		(B)
Agrostis capillaris	40	Υ	FAC		ence Index = B/A =			_(5)
Festuca arundinacea	40	Y	FAC	ricvak	Shoc mack Birt	#51470.		=
3. Cynosurus cristatus	20	Y	FACU	Hydrophyt	ic Vegetation Indi	cators:		
Hypochaeris radicata	5	N	FACU		Dominance Test is			
5. moss					Prevalence Index is			
6.					Morphological Ada		upportin	<b>a</b>
7		-	· ——		data in Remarks or			9
8.		-			Problematic Hydro			)
Total Cover:	105				, ,		` .	•
Woody Vine Stratum  1.				<sup>1</sup> Indicators present.	of hydric soil and w	vetland hydrology i	must be	
2.				Hydrophyt	ic			
Total Cover:	105			Vegetation				
% Bare Ground in Herb Stratum%	Cover of Bio	otic Crust	0	Present?		Yes X	lo	
Remarks: Dried veg								

nches) Colo	or (moist)	%	Color (r	noist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rema	ırks
3 10YR 3	/2	95	10YR 3/4	ļ	5	С	М	SiL			
7 10YR 3	/3	100						gravelly SiL			
								gravels	com	pact soil	
								_			
pe: C=Concentr	ation, D=Deple	etion, RN	√=Reduce	d Matrix	, CS=Cov	vered or 0	Coated S	and Grains. <sup>2</sup> L	ocation: PL	=Pore Lining, M=	Matrix.
dric Soil Indicate	ors: (Applica	ble to a	II LRRs, u			-		Indicators		natic Hydric Soils	
Histosol (A1)				-	Redox (S			_		luck (A10) (LRR E	•
Histic Epipedo					d Matrix (		\	-		rent Material (TF	•
Black Histic (A	•			-	-			ot MLRA 1)	Otner (	Explain in Remarl	KS)
Hydrogen Sulfi Depleted Belov		Δ11)		-	d Matrix	/atrix (F2	)				
Thick Dark Sur		<i>5</i> (A11)		-		face (F6)		<sup>3</sup> Indica	tors of hydr	ophytic vegetatior	n and
Sandy Muck M	` ,					Surface (F	7)		-	gy must be prese	
Sandy gleyed	` '			-	Depression		,		-	ed or problematic	
strictive Layer (i						. ,				•	
	nact dry soil										
pe: gravel, com pth (inches):			7				F	Hydric Soil Pres	sent?	Yes	No <u>X</u>
pe: gravel, com pth (inches): arks:			7				<u> </u>	lydric Soil Pres	sent?	Yes	No <u>X</u>
pe: gravel, com pth (inches): arks:  ROLOGY etland Hydrology	/ Indicators:	torio ou	7				1	Hydric Soil Pres			
pe: gravel, com pth (inches): arks:  ROLOGY etland Hydrology mary Indicators (a	/ Indicators: any one indica	tor is su	7 fficient)	Water-S	tained L	eaves (R			Seconda	ary Indicators (2 o	r more require
pe: gravel, compth (inches):	/ Indicators: any one indica (A1)	tor is su	fficient)			eaves (BS			Seconda Water-:	ary Indicators (2 o Stained Leaves (E	r more require
pe: gravel, compth (inches):  arks:  ROLOGY etland Hydrology mary Indicators (a Surface Water High Water Ta	/ Indicators: any one indica (A1) ble (A2)	tor is su	fficient)	1, 2,	4A and	-			Seconda Water-	ary Indicators (2 o Stained Leaves (E and 4B)	r more require 39) ( <b>MLRA 1,</b>
e: gravel, compth (inches):	/ Indicators: any one indica (A1) ble (A2)	tor is su	fficient)	<b>1, 2,</b> Salt Cru	<b>4A and</b> ust (B11)	<b>4B</b> )	(exce		Seconda Water- 4 <b>A</b> a	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10)	r more require 39) ( <b>MLRA 1,</b>
e: gravel, compth (inches):  arks:  ROLOGY etland Hydrology mary Indicators (a Surface Water High Water Ta	y Indicators: any one indica (A1) ble (A2) ) B1)	tor is su	fficient)	<b>1, 2,</b> Salt Cru Aquatic	<b>4A and</b> ust (B11) Inverteb	-	9) (excep		Seconda Water- 4 <b>A</b> : Draina Dry-Se	ary Indicators (2 o Stained Leaves (E and 4B)	r more require 39) ( <b>MLRA 1,</b> 3
pe: gravel, compth (inches):	/ Indicators: any one indica (A1) ble (A2) ) B1) osits (B2)	tor is su		1, 2, Salt Cru Aquatic Hydroge	<b>4A and</b> ust (B11) Inverteb	<b>4B</b> ) rates (B1) e Odor (C	3) 1)		Seconda Water- 4A a Drainag Dry-Se Saturat	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table	r more require 39) ( <b>MLRA 1,</b> 2 e (C2) rial Imagery (C
ROLOGY etland Hydrology mary Indicators (a Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo	y Indicators: any one indica (A1) ble (A2) ) B1) osits (B2) (B3)	tor is su		1, 2, Salt Cru Aquatic Hydroge Oxidize	<b>4A</b> and aust (B11) Inverteblen Sulfided d Rhizos	<b>4B</b> ) rates (B1) e Odor (C	(exception) (excep	ot MLRA _ - -	Seconda Water 4A a Drainag Dry-Se Saturat Geomo	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer	r more require 39) ( <b>MLRA 1,</b> 2 e (C2) rial Imagery (C
ROLOGY  etland Hydrology mary Indicators (a  Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo	y Indicators: any one indica (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4)	tor is su		1, 2, Salt Cru Aquatic Hydroge Oxidized Presence	4A and aust (B11) Invertebren Sulfider d Rhizosce of Red	<b>4B</b> ) rates (B1) e Odor (Countries al	3) 1) ong Livir	ot MLRA	Seconda Water- 4A a Draina Dry-Se Saturat Geomo	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2	r more require 39) ( <b>MLRA 1,</b> 2 e (C2) rial Imagery (C
pe: gravel, compth (inches):  arks:  ROLOGY etland Hydrology mary Indicators (a Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Depo Drift Deposits ( Algal Mat or Col Iron Deposits ( Surface Soil C	y Indicators: any one indica (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6)	tor is su		1, 2, Salt Cru Aquatic Hydroge Oxidized Present Recent	4A and aust (B11) Invertebren Sulfided Rhizospece of Red	4B) rates (B1: e Odor (C pheres al	3) 1) ong Livir I (C4) Plowed \$	ot MLRA  - ang Roots (C3) - Soils (C6)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-Ne Raised	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 v Aquitard (D3) eutral Test (D5) Ant Mounds (D6)	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2)
ROLOGY tland Hydrology mary Indicators (a Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo Drift Deposits ( Algal Mat or Ci Iron Deposits ( Surface Soil C Water-Stained	y Indicators: any one indica (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) Leaves (B9)			1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted	4A and ust (B11) Invertebren Sulfider d Rhizos ce of Red Iron Red	rates (B1: e Odor (C pheres alduced Iron luction in I	3) 1) 2) (exception of the control o	ot MLRA  - ang Roots (C3) - Soils (C6)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-Ne Raised	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 v Aquitard (D3) eutral Test (D5)	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2)
ROLOGY  Interpretation (A3) Water Marks (B) Sediment Deporting Deposits (C) Iron Deposits (C) Surface Soil C	y Indicators: any one indica (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) Leaves (B9)			1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted	4A and ust (B11) Invertebren Sulfider d Rhizos ce of Red Iron Red	rates (B1: e Odor (C pheres alduced Iron luction in I sed Plant	3) 1) 2) (exception of the control o	ot MLRA  - ang Roots (C3) - Soils (C6)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-Ne Raised	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 v Aquitard (D3) eutral Test (D5) Ant Mounds (D6)	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2)
ROLOGY  Itland Hydrology  Mary Indicators (a  Surface Water  High Water Ta  Saturation (A3  Water Marks (I  Sediment Depo  Drift Deposits (  Algal Mat or Ci  Iron Deposits (  Surface Soil C  Water-Stained  Sparsely Vege  Id Observations	rust (B4) B5) racks (B6) Leaves (B9) tated Concave		X ————————————————————————————————————	1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	4A and ast (B11) Invertebren Sulfider den Sulfider der Sulfider der Stressen der St	rates (B1: e Odor (C pheres alduced Iron luction in I sed Plant	3) 1) 2) (exception of the control o	ot MLRA  - ang Roots (C3) - Soils (C6)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-Ne Raised	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 v Aquitard (D3) eutral Test (D5) Ant Mounds (D6)	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2)
ROLOGY  etland Hydrology mary Indicators (a Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo Drift Deposits ( Algal Mat or Ci Iron Deposits ( Surface Soil C Water-Stained	rust (B4) B5) racks (B6) Leaves (B9) tated Concave			1, 2, Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	4A and ust (B11) Invertebren Sulfider den Redron Redron Redron Stressexplain in (inches)	rates (B1: e Odor (C pheres alduced Iron luction in I sed Plant in Remarks	3) 1) 2) (exception of the control o	ot MLRA  - ang Roots (C3) - Soils (C6)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-Ne Raised	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 v Aquitard (D3) eutral Test (D5) Ant Mounds (D6)	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2)
ROLOGY  etland Hydrology mary Indicators (a Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo Drift Deposits ( Algal Mat or Ci Iron Deposits ( Surface Soil C Water-Stained Sparsely Vege eld Observations fface Water Present turation Present?	rust (B4) B5) rust (B6) Leaves (B9) tated Concave ent? Yes Yes		 X  e (B8)	1, 2, Salt Cru Aquatic Hydroge Oxidizer Presence Recent Stunted Other (E	4A and ast (B11) Invertebren Sulfider den Sulfider der Sulfider der Stressen der St	rates (B1: e Odor (C pheres ali duced Iror luction in I sed Plant n Remarks  ):  >7"	3) 1) 2) (exception of the control o	ot MLRA  - ang Roots (C3) - Soils (C6)	Seconda Water- 4A: Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-H	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 ov Aquitard (D3) eutral Test (D5) Ant Mounds (D6) leave Hummocks	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2) (LRR A) (D7)
ROLOGY  etland Hydrology mary Indicators (a Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo Drift Deposits ( Algal Mat or Ci Iron Deposits ( Surface Soil C Water-Stained Sparsely Vege eld Observations fface Water Present turation Present? cludes capillary fr	rust (B4) B5) rust (B4) B6) Leaves (B9) tated Concave ent? Yes ent? Yes yes inge)	e Surface	E (B8)  No X No X No X No X X	1, 2, Salt Cru Aquatic Hydroge Oxidizer Present Recent Stunted Other (E	4A and ust (B11) Invertebren Sulfider den Redron Redron Redron Stress Explain in (inches)	rates (B1: e Odor (C pheres ali duced Iror luction in I sed Plant n Remarks  ):  > 7"  : >7"	3) 1) ong Livir I (C4) Plowed S s (D1) (L	ot MLRA  ng Roots (C3) Soils (C6) Wetland Hy	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-No Raised Frost-H	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 ov Aquitard (D3) eutral Test (D5) Ant Mounds (D6) leave Hummocks	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2) (LRR A) (D7)
ee: gravel, compth (inches):  arks:  ROLOGY  etland Hydrology mary Indicators (a Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo Drift Deposits ( Algal Mat or Ci Iron Deposits ( Surface Soil C Water-Stained Sparsely Vege Id Observations fface Water Presenter table Present turation Present?	rust (B4) B5) rust (B4) B6) Leaves (B9) tated Concave ent? Yes ent? Yes yes inge)	e Surface	E (B8)  No X No X No X No X X	1, 2, Salt Cru Aquatic Hydroge Oxidizer Present Recent Stunted Other (E	4A and ust (B11) Invertebren Sulfider den Redron Redron Redron Stress Explain in (inches)	rates (B1: e Odor (C pheres ali duced Iror luction in I sed Plant n Remarks  ):  > 7"  : >7"	3) 1) ong Livir I (C4) Plowed S s (D1) (L	ot MLRA  ng Roots (C3) Soils (C6) Wetland Hy	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-No Raised Frost-H	ary Indicators (2 o Stained Leaves (E and 4B) ge Patterns (B10) ason Water Table tion Visible on Aer orphic Position (D2 ov Aquitard (D3) eutral Test (D5) Ant Mounds (D6) leave Hummocks	r more require 39) (MLRA 1, 2) e (C2) rial Imagery (C2) (LRR A) (D7)

# Appendix C.

# **Ground Level Photographs**



**Photo 1.** View south on west side of Hall Slough.

7/16/2014



**Photo 2**. View south on planted levee above Hall Slough.

7/16/2014



**Photo 3**. View southeast toward Hall Slough from levee.





**Photo 4.** View southeast near drainage ditch at south end of site.

7/15/2014



**Photo 5.** View south from Sp-18,19 toward Trask River levee.

8/21/2014



Photo 6. Typical agricultural drainage channel north of Trask River. 8/21/2014

Appendix C Southern Flow Corridor



Photo 7. View west toward Trask River levee.

8/21/2014

# Appendix D.

# **Additional Tables and Information**

## **USDA Field Office Climate Data**

WETS Station: TILLAMOOK, OR8494 Creation Date: 12/03/2014
Latitude: 4527 Longitude: 12351 Elevation: 00012

State FIPS/County(FIPS): 41057 County Name: Tillamook

Start yr. - 1971 End yr. - 2000

		Temperatı (Degrees 			_	itation ches)		
	   		   		30% ch		avg    # of   days	avg total
Month	avg   daily   max	avg     daily     min	avg     avg	avg	less   than	more   than	w/.1    or   more	snow fall
January	49.9	   36.3	43.1	13.09	   8.41	15.76	18	0.6
February	52.5	37.2	44.9	10.79	7.70	12.76	16	0.3
March	54.2	37.5	45.9	9.90	7.11	11.69	17	0.1
April	56.8	39.3	48.1	6.81	4.67	8.12	13	0.0
May	60.4	43.3	51.9	4.84	3.25	5.79	11	0.0
June	63.7	47.0	55.4	3.41	2.32	4.08	8	0.0
July	66.7	49.9	58.3	1.64	0.76	2.00	4	0.0
August	68.1	49.8	59.0	1.42	0.64	1.73	4	0.0
September	68.6	46.6	57.6	3.68	1.29	4.43	7	0.0
October	62.5	41.9	52.2	7.16	4.08	8.72	11	0.0
November	54.4	39.2	46.8	13.72	9.70	16.26	18	0.2
December	49.9	36.4	43.2	13.94	9.85	16.52	18	0.2
Annual	'   	 	     		80.09	98.95		
Average	59.0	42.0	50.5					
Average				90.40			143	1.4

### GROWING SEASON DATES

	 	Temperature	
Probability	'   24 F or higher     -	28 F or higher   3	32 F or higher
		nning and Ending Dat owing Season Length	ces
50 percent *	2/3 to 12/16     315 days   	3/30 to 11/ 7   221 days	
70 percent *	1/18 to 1/ 1     348 days		4/22 to 10/15 175 days

-----

\* Percent chance of the growing season occurring between the Beginning and Ending dates.

total 1948-2014 prcp

Station : OR8494, TILLAMOOK
----- Unit = inches

yr jan	feb	mar	apr	may	jun		aug	sep	oct	nov	dec	annl
48								4.60	6.55	13.96	M17.42	2 45.40
49M2.18	21.39	7.55	2.42	4.36			1.09				13.96	
5017.70												7 107.25
												2.56 91.29
5214.74	9.95	M11.84	3.44	2.44	2.54	0.05	1.41	1.05	5 1.88	3.23	3 14.65	67.22
53M20.05	5 M6.9	2 M8.74	5.34	6.05		0.44	3.05	M2.50	0 6.33	3 15.73	3 17.05	92.20
5420.33	14.28	6.70	6.52	3.09	M5.92	M1.73	2.77	M3.10	6.58	11.79	14.83	97.64
55 9.41	M8.89	13.82	10.34	M1.92	M1.62	2.87	0.15	3.83	14.65	M13.79	9 18.04	1 99.33
5620.61	12.44	M15.84	1.86	2.20	4.35	0.26	3.34	3.09	9 11.16	3.52	2 10.57	89.24
57 6.74				5.72	2.40	1.43	1.87	0.71			16.93	
5816.83			10.97	1.58	3.93	0.02	0.59	2.91	4.99	16.53	13.44	90.93
5917.06		10.37	5.26	4.42	6.31	2.62	0.82		10.45	8.71	7.54	
60 9.38			7.64	7.83	1.79	0.00	3.48	1.39			7.84	
6112.51			5.10	5.15	1.10	0.51	1.45	2.03				102.38
62 7.67			8.53	4.39	1.57	0.61	3.64	5.46			7.44	
63 5.47			7.99	3.26	3.74	2.38	5.12				10.64	
6425.34		10.07	4.87	2.66	4.30	3.63	2.90				19.18	
6523.06		1.64	5.56	3.08	1.02	0.59	0.85				14.69	
6614.23		13.12	2.87	1.98	1.88	0.34	1.02					81.99
6717.08		12.46	6.64	1.52	0.69	0.00	0.07		11.18		11.46	27 109.35
6812.55 69M13.68		10.50	5.92	4.92	6.80	0.95	6.53 0.61					80.03
7019.39				3.56	1.17		0.23				22.38	
7125.10		14.06	6.16	3.56	3.67	2.90	1.43					117.44
7218.51				1.97	2.15	1.15	0.44	5.84			18.54	
73 9.01		10.08	3.58	4.44	5.62	0.14	0.84	6.11			20.07	
7416.92			7.58	6.65	2.65	4.87	0.47	0.78				102.40
7519.71			5.30	4.46	2.52	1.01	3.98					105.89
7614.29			5.26	3.28	1.31	2.77	2.22	1.70	3.32		4.53	
77 3.25	6.81	13.50	2.34	8.87	1.66	0.83	3.80	7.80	7.03	M14.59	9 19.53	3 90.01
78 9.67	7.49	4.11	8.10	5.86	3.41	1.03	4.16	6.94	1.80	9.08	6.32	67.97
79 4.17			5.32		3.07	1.92	1.12				16.57	
8010.42	9.99	9.73	6.20	3.38	2.67	0.56	1.15	3.41	3.06	13.98	17.56	82.11
81 4.62	8.67	8.38	8.53	5.19	7.24	0.68	0.55	4.78	13.43	10.24	16.25	88.56
8218.85			9.10	1.19	1.65	2.27	1.13	5.94			15.99	
8318.70			3.74	5.19	7.56	5.37	1.31	2.21				104.82
84 9.92			7.73	8.15	6.07	1.09	0.32				10.14	
85 0.79			3.04	2.34	4.00	0.75	1.27	4.92			3.88	
8614.07			6.00	5.50	1.13	3.28	0.26	5.59			6.12	
8712.90		16.02	3.72	6.20	1.38	1.70	0.89	1.31	0.62		13.01	
8810.46		10.09	6.38	7.33	3.34	1.56	0.81	2.61			10.20	
8912.77		16.35	2.61	4.19	2.78	3.09	2.65	0.59	6.54	9.56		76.36
9021.41			6.83	5.63	3.86	0.63	1.16		11.02			94.93
91 8.72			13.58	4.65	2.27	0.62	1.76	0.11			12.24	
9213.30	7.48	1.16	12.81	0.59	0.99	0.32	0.81	3.85	7.02	11.15	11.10	/0.58

```
93 7.60 2.34 10.50 13.29 6.85 4.13 4.58 0.72 0.25 2.66 4.79 12.91 70.62
9412.24 13.05 7.06
                  6.09 2.29 4.44 0.22 0.74 2.85 12.75 18.87 23.03 103.63
9517.52 9.71 11.62
                  7.16 2.27
                              4.21
                                   0.80 1.88 5.21 8.23 24.09 15.40 108.10
9615.49 21.64 4.77 14.50 6.53
                                         1.80 4.63 12.45 14.48 22.19 122.71
                              2.49 1.74
9716.99 4.67 16.05
                  7.86 3.92
                              5.82 1.78 2.47 10.96 14.18 11.36 11.14 107.20
9815.87 12.29 10.78 3.14 5.61
                              3.13 0.34 0.01 1.00 10.07 21.16 22.21 105.61
9917.05 22.74 9.82 3.20 7.21
                              3.36 1.46 1.71 0.27 4.00 25.39 17.19 113.40
                                   0.55 0.59 2.98 6.19 4.72 6.86 63.79
012.07
       9.34 5.55
                  4.10 7.03
                             3.81
                  7.75
1 6.29 3.87 7.58
                        3.50
                              3.40 1.22
                                        3.54 1.05 5.31 15.44 16.40 75.35
219.05 6.67 10.52
                  6.93 2.73
                             2.60 0.31 0.28
                                              1.46 1.52 7.80 17.25 77.12
                                              3.01 8.83 10.72 15.20 93.79
319.11 5.88 17.37
                  8.09 4.34 0.86 0.29
                                         0.09
417.01 8.15 6.21 5.18 5.99
                              4.07 0.20 5.58 7.50 6.77
                                                          6.08 9.94 82.68
5 8.31 2.34 8.78
                  8.89 7.28
                              6.06 2.11 0.75
                                              3.25 11.93 12.97 14.69 87.36
623.84 5.58 9.09 4.11 M5.08
                             3.33 0.99 0.20 2.34 3.96 25.88 13.74 98.14
7 \ 9.63 \ 14.59 \ 10.46 \ 4.65 \ 1.99 \ 2.87 \ 1.98 \ 1.12 \ 2.71 \ 7.35 \ 7.70 \ 19.21 \ 84.26
813.12 6.91 11.48 8.36 2.08 3.55 0.21 M2.85 0.73 4.48 14.76 12.02 80.55
914.50 3.89 9.77 5.10 5.72 1.14 0.57 M1.72 3.06 7.03 M14.72 M6.44 73.66
1013.30 M7.40 9.76 M11.17 6.60 M5.61 0.70 0.76 0.00 0.00
11
                  M0.67 M4.81 4.41 0.73 0.04 M0.05 15.29 13.52 22.53 62.05
12
13 9.25 6.18 M5.56 6.75 8.96 3.10 0.01 M1.61 10.54 2.84 7.18 5.70 67.68
14M7.38 M11.06 15.51 7.64 M5.00 M2.10 1.75 0.73 3.69 12.86 9.84 M0.00 77.56
-----
```

Product generated by ACIS - NOAA Regional Climate Centers.

		Clin	natological D	ata for TILL	AMOOI	<b>K, OR -</b> I	May 2014		
Date		Temper	ature		HDD	CDD	Precipitation	New Snow	Snow Depth
Dute	Maximum	Minimum	Average	Departure	пр	CDD	Trecipitation	rew show	эно ж Бери
2014-05-01	88	53	70.5	19.9	0	6	0.00	0.0	0
2014-05-02	84	50	67.0	16.3	0	2	0.00	0.0	0
2014-05-03	M	M	M	M	M	M	0.05	0.0	0
2014-05-04	57	48	52.5	1.5	12	0	0.83	0.0	0
2014-05-05	58	48	53.0	1.8	12	0	0.41	0.0	0
2014-05-06	60	44	52.0	0.7	13	0	0.00	0.0	0
2014-05-07	M	M	M	M	M	M	M	0.0	0
2014-05-08	61	40	50.5	-1.1	14	0	0.10	0.0	0
2014-05-09	56	48	52.0	0.2	13	0	1.40	0.0	0
2014-05-10	57	44	50.5	-1.4	14	0	0.68	0.0	0
2014-05-11	59	38	48.5	-3.6	16	0	0.02	0.0	0
2014-05-12	61	38	49.5	-2.7	15	0	0.00	0.0	0
2014-05-13	78	40	59.0	6.6	6	0	0.00	0.0	0
2014-05-14	М	М	M	М	M	M	M	0.0	0
2014-05-15	М	М	M	М	M	M	M	0.0	0
2014-05-16	75	52	63.5	10.7	1	0	0.00	0.0	0
2014-05-17	65	54	59.5	6.5	5	0	0.00	0.0	0
2014-05-18	65	53	59.0	5.9	6	0	0.06	0.0	0
2014-05-19	63	51	57.0	3.8	8	0	0.33	0.0	0
2014-05-20	64	45	54.5	1.1	10	0	0.00	0.0	0
2014-05-21	63	45	54.0	0.5	11	0	0.00	0.0	0
2014-05-22	61	45	53.0	-0.6	12	0	0.00	0.0	0
2014-05-23	67	48	57.5	3.7	7	0	0.01	0.0	0
2014-05-24	66	54	60.0	6.1	5	0	0.00	0.0	0
2014-05-25	63	46	54.5	0.5	10	0	0.00	0.0	0
2014-05-26	65	48	56.5	2.4	8	0	0.50	0.0	0
2014-05-27	63	41	52.0	-2.2	13	0	0.00	0.0	0
2014-05-28	64	45	54.5	0.1	10	0	0.12	0.0	0
2014-05-29	62	47	54.5	0.0	10	0	0.49	0.0	0
2014-05-30	62	39	50.5	-4.1	14	0	0.00	0.0	0

Observations for each day cover the 24 hours ending
at the time given below (Local Standard Time).

39

1243

46.0

43.5

51.0

-

55.4

52.8

-3.7

-

2.6

14

259

380

0

8

1

0.00

5.00

4.72

0.0

0.0

0.0

0

0.0

63

1750

64.8

62.0

2014-05-31

Sum

Average

Normal

Max Temperature : 8am
Min Temperature : 8am

Precipitation: 8am

Snowfall: unknown

Snow Depth : unknown

Doto	Temperature					CDD	D	New Snow	Snow Depth
Date	Maximum	Minimum	Average	Departure	HDD	CDD	Precipitation	New Show	Snow Depth
2014-06-01	64	43	53.5	-1.3	11	0	0.00	0.0	0
2014-06-02	65	51	58.0	3.1	7	0	0.00	0.0	0
2014-06-03	62	53	57.5	2.5	7	0	0.00	0.0	0
2014-06-04	62	46	54.0	-1.1	11	0	0.00	0.0	0
2014-06-05	62	39	50.5	-4.7	14	0	0.00	0.0	0
2014-06-06	61	40	50.5	-4.8	14	0	0.00	0.0	0
2014-06-07	62	39	50.5	-4.9	14	0	0.00	0.0	0
2014-06-08	63	53	58.0	2.5	7	0	0.00	0.0	0
2014-06-09	64	52	58.0	2.3	7	0	0.00	0.0	0
2014-06-10	63	41	52.0	-3.8	13	0	0.00	0.0	0
2014-06-11	64	43	53.5	-2.4	11	0	0.00	0.0	0
2014-06-12	65	43	54.0	-2.0	11	0	0.00	0.0	0
2014-06-13	60	54	57.0	0.9	8	0	1.24	0.0	0
2014-06-14	61	52	56.5	0.3	8	0	0.01	0.0	0
2014-06-15	64	52	58.0	1.7	7	0	0.04	0.0	0
2014-06-16	61	47	54.0	-2.4	11	0	0.04	0.0	0
2014-06-17	61	49	55.0	-1.5	10	0	0.14	0.0	0
2014-06-18	64	51	57.5	0.9	7	0	0.01	0.0	0
2014-06-19	64	44	54.0	-2.7	11	0	0.00	0.0	0
2014-06-20	70	44	57.0	0.2	8	0	0.03	0.0	0
2014-06-21	65	40	52.5	-4.4	12	0	0.00	0.0	0
2014-06-22	65	43	54.0	-3.0	11	0	0.00	0.0	0
2014-06-23	67	47	57.0	-0.2	8	0	0.00	0.0	0
2014-06-24	66	50	58.0	0.7	7	0	0.04	0.0	0
2014-06-25	71	56	63.5	6.1	1	0	0.05	0.0	0
2014-06-26	67	56	61.5	4.0	3	0	0.10	0.0	0
2014-06-27	M	M	M	M	M	M	M	0.0	0
2014-06-28	64	57	60.5	2.8	4	0	0.39	0.0	0
2014-06-29	67	57	62.0	4.2	3	0	0.01	0.0	0
2014-06-30	68	47	57.5	-0.4	7	0	0.00	0.0	0
Sum	1862	1389	-	-	253	0	2.10	0.0	-
Average	64.2	47.9	56.1	-0.3	-	-	-	-	0.0
Normal	65.0	47.7	56.4	-	260	1	3.58	0.0	-

## Observations for each day cover the 24 hours ending at the time given below (Local Standard Time).

Max Temperature : 8am

Min Temperature : 8am

Precipitation: 8am

Snowfall: unknown

Snow Depth: unknown

Date		Temperature					Dussinitation	New Snow	Snow Depth
Date	Maximum	Minimum	Average	Departure	HDD	CDD	Precipitation	New Show	Show Depth
2014-07-01	72	47	59.5	1.5	5	0	0.00	0.0	0
2014-07-02	84	50	67.0	8.9	0	2	0.00	0.0	0
2014-07-03	71	59	65.0	6.8	0	0	0.00	0.0	0
2014-07-04	67	47	57.0	-1.3	8	0	0.00	0.0	0
2014-07-05	67	47	57.0	-1.4	8	0	0.00	0.0	0
2014-07-06	71	50	60.5	2.0	4	0	0.00	0.0	0
2014-07-07	74	51	62.5	3.9	2	0	0.00	0.0	0
2014-07-08	69	58	63.5	4.8	1	0	0.00	0.0	0
2014-07-09	67	52	59.5	0.7	5	0	0.00	0.0	0
2014-07-10	66	46	56.0	-2.8	9	0	0.00	0.0	0
2014-07-11	67	48	57.5	-1.4	7	0	0.00	0.0	0
2014-07-12	65	55	60.0	1.0	5	0	0.00	0.0	0
2014-07-13	67	56	61.5	2.4	3	0	0.00	0.0	0
2014-07-14	61	56	58.5	-0.6	6	0	0.09	0.0	0
2014-07-15	66	56	61.0	1.8	4	0	0.00	0.0	0
2014-07-16	65	54	59.5	0.2	5	0	0.00	0.0	0
2014-07-17	67	54	60.5	1.2	4	0	0.00	0.0	0
2014-07-18	69	49	59.0	-0.4	6	0	0.00	0.0	0
2014-07-19	M	M	M	M	M	M	0.00	0.0	0
2014-07-20	74	59	66.5	7.1	0	2	0.02	0.0	0
2014-07-21	69	46	57.5	-2.0	7	0	0.00	0.0	0
2014-07-22	69	46	57.5	-2.0	7	0	0.00	0.0	0
2014-07-23	73	57	65.0	5.5	0	0	0.60	0.0	0
2014-07-24	68	56	62.0	2.4	3	0	1.03	0.0	0
2014-07-25	67	47	57.0	-2.6	8	0	0.01	0.0	0
2014-07-26	68	47	57.5	-2.1	7	0	0.00	0.0	0
2014-07-27	69	50	59.5	-0.1	5	0	0.00	0.0	0
2014-07-28	72	55	63.5	3.9	1	0	0.00	0.0	0
2014-07-29	67	52	59.5	-0.1	5	0	0.00	0.0	0
2014-07-30	66	53	59.5	-0.2	5	0	0.00	0.0	0
2014-07-31	68	48	58.0	-1.7	7	0	0.00	0.0	0
Sum	2065	1551	-	-	137	4	1.75	0.0	-
Average	68.8	51.7	60.3	1.2	-	-	-	-	0.0
Normal	68.0	50.2	59.1	-	185	2	1.38	0.0	-

# Observations for each day cover the 24 hours ending at the time given below (Local Standard Time).

Max Temperature : 8am
Min Temperature : 8am

Precipitation: 8am

Snowfall : unknown

Snow Depth: unknown

# Climatological Data for TILLAMOOK, OR - August 2014

Date	Temperature					CDD	Dussinitation	New Snow	Snow Depth
Date	Maximum	Minimum	Average	Departure	HDD	CDD	Precipitation	New Show	Show Depth
2014-08-01	69	47	58.0	-1.7	7	0	0.00	0.0	0
2014-08-02	68	53	60.5	0.8	4	0	0.00	0.0	0
2014-08-03	69	57	63.0	3.3	2	0	0.00	0.0	0
2014-08-04	69	55	62.0	2.3	3	0	0.00	0.0	0
2014-08-05	65	54	59.5	-0.1	5	0	0.00	0.0	0
2014-08-06	71	52	61.5	1.9	3	0	0.00	0.0	0
2014-08-07	70	48	59.0	-0.6	6	0	0.00	0.0	0
2014-08-08	68	47	57.5	-2.1	7	0	0.00	0.0	0
2014-08-09	69	46	57.5	-2.1	7	0	0.00	0.0	0
2014-08-10	68	46	57.0	-2.6	8	0	0.00	0.0	0
2014-08-11	74	49	61.5	1.9	3	0	0.00	0.0	0
2014-08-12	77	58	67.5	7.9	0	3	0.00	0.0	0
2014-08-13	63	57	60.0	0.4	5	0	0.13	0.0	0
2014-08-14	67	59	63.0	3.4	2	0	0.14	0.0	0
2014-08-15	71	50	60.5	1.0	4	0	0.02	0.0	0
2014-08-16	71	55	63.0	3.5	2	0	0.03	0.0	0
2014-08-17	71	55	63.0	3.5	2	0	0.00	0.0	0
2014-08-18	68	52	60.0	0.5	5	0	0.00	0.0	0
2014-08-19	69	55	62.0	2.5	3	0	0.00	0.0	0
2014-08-20	71	58	64.5	5.0	0	0	0.01	0.0	0
2014-08-21	69	44	56.5	-3.0	8	0	0.00	0.0	0
2014-08-22	71	44	57.5	-1.9	7	0	0.02	0.0	0
2014-08-23	65	51	58.0	-1.4	7	0	0.00	0.0	0
2014-08-24	72	52	62.0	2.6	3	0	0.00	0.0	0
2014-08-25	70	49	59.5	0.1	5	0	0.00	0.0	0
2014-08-26	78	50	64.0	4.6	1	0	0.00	0.0	0
2014-08-27	69	52	60.5	1.2	4	0	0.00	0.0	0
2014-08-28	69	54	61.5	2.2	3	0	0.00	0.0	0
2014-08-29	73	56	64.5	5.2	0	0	0.01	0.0	0
2014-08-30	71	58	64.5	5.3	0	0	0.07	0.0	0
2014-08-31	69	58	63.5	4.3	1	0	0.30	0.0	0
Sum	2164	1621	-	-	117	3	0.73	0.0	-
Average	69.8	52.3	61.0	1.5	-	-	-	-	0.0
Normal	69.1	49.9	59.5	-	172	2	1.31	0.0	-

# Observations for each day cover the 24 hours ending at the time given below (Local Standard Time).

Max Temperature : 8am
Min Temperature : 8am

Precipitation: 8am

Snowfall : unknown

Snow Depth: unknown

Climatological Data for TILLAMOOK, OR - September 2014							
Temperature	IIDD	CDD	Dugainitation	Mary Char			

Date	Temperature					CDD	Precipitation	New Snow	Snow Depth
Date	Maximum	Minimum	Average	Departure	HDD	CDD	Frecipitation	New Show	Show Depth
2014-09-01	72	52	62.0	2.8	3	0	0.00	0.0	0
2014-09-02	73	53	63.0	3.9	2	0	0.00	0.0	0
2014-09-03	71	51	61.0	1.9	4	0	0.00	0.0	0
2014-09-04	69	43	56.0	-3.0	9	0	0.00	0.0	0
2014-09-05	82	42	62.0	3.1	3	0	0.00	0.0	0
2014-09-06	92	46	69.0	10.1	0	4	0.00	0.0	0
2014-09-07	67	51	59.0	0.2	6	0	0.00	0.0	0
2014-09-08	63	53	58.0	-0.7	7	0	0.00	0.0	0
2014-09-09	68	53	60.5	1.8	4	0	0.00	0.0	0
2014-09-10	69	53	61.0	2.4	4	0	0.00	0.0	0
2014-09-11	67	48	57.5	-1.0	7	0	0.00	0.0	0
2014-09-12	79	50	64.5	6.1	0	0	0.00	0.0	0
2014-09-13	81	44	62.5	4.2	2	0	0.00	0.0	0
2014-09-14	85	44	64.5	6.3	0	0	0.00	0.0	0
2014-09-15	77	43	60.0	1.9	5	0	0.00	0.0	0
2014-09-16	71	43	57.0	-0.9	8	0	0.00	0.0	0
2014-09-17	73	53	63.0	5.2	2	0	0.00	0.0	0
2014-09-18	68	60	64.0	6.3	1	0	0.05	0.0	0
2014-09-19	69	52	60.5	2.9	4	0	0.00	0.0	0
2014-09-20	73	52	62.5	5.1	2	0	0.00	0.0	0
2014-09-21	85	50	67.5	10.2	0	3	0.00	0.0	0
2014-09-22	71	57	64.0	6.9	1	0	0.00	0.0	0
2014-09-23	70	57	63.5	6.5	1	0	0.12	0.0	0
2014-09-24	68	59	63.5	6.7	1	0	2.17	0.0	0
2014-09-25	70	55	62.5	5.9	2	0	0.00	0.0	0
2014-09-26	69	55	62.0	5.5	3	0	0.45	0.0	0
2014-09-27	68	53	60.5	4.2	4	0	0.14	0.0	0
2014-09-28	67	47	57.0	0.9	8	0	0.00	0.0	0
2014-09-29	70	45	57.5	1.6	7	0	0.00	0.0	0
2014-09-30	64	53	58.5	2.8	6	0	0.76	0.0	0
Sum	2171	1517	-	-	106	7	3.69	0.0	-
Average	72.4	50.6	61.5	3.7	-	-	-	-	0.0
Normal	69.2	46.4	57.8	-	220	4	3.00	0.0	-

# Observations for each day cover the 24 hours ending at the time given below (Local Standard Time).

Max Temperature : 8am

Min Temperature : 8am

Precipitation: 8am

-- r

Snowfall : unknown
Snow Depth : unknown

# APPENDIX E Literature Citations and References

- Anderson Geological, Inc. 2014. Sadri Property, Tillamook, Oregon Phase II Environmental Site
  Assessment, Project #1420.01. Prepared for Tillamook County, Oregon. Anderson Geological,
  Inc., Wilsonville, Oregon.
- Cowardin, L.M., Carter, V., Golet, F.C., and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Washington, D.C: Government Printing Office.
- DSL (Oregon Department of State Lands). 2010. Using Tidal Data to Determine Highest Measured Tide (HMT) 10/19/2010. <a href="http://www.oregon.gov/DSL/PERMITS/docs/using\_tidal\_data\_for\_hmt.doc">http://www.oregon.gov/DSL/PERMITS/docs/using\_tidal\_data\_for\_hmt.doc</a>. Verified January 12, 2015.
- Environmental Protection Agency (EPA). 2011. Ecoregions of Oregon. Electronic document, <a href="ftp://ftp.epa.gov/wed/ecoregions/or/or\_front.pdf">ftp://ftp.epa.gov/wed/ecoregions/or/or\_front.pdf</a>. Accessed January 15, 2015.
- Fillmore, Matthew H. 2006. Soil Survey of Tillamook County, Oregon. Natural Resources Conservation Service, U.S. Department of Agriculture, in cooperation with the Oregon Agricultural Experiment Station, U.S. Department of the Interior, Bureau of Land Management, and Tillamook County.
- Hitchcock, C. Leo, and Arthur Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press, Seattle, Washington.
- Levesque, Paul, Warren A. McMinimee, and Don James. 1985. A Chronicle of the Tillamook County Forest Trust Lands. Paul Levesque. Tillamook, Oregon.
- Munsell Color Services. 2000. Munsell Soil Color Charts. Gretag Macbeth, New Windsor, New York.
- National Oceanic and Atmospheric Administration. The National Weather Service. Regional Climate Centers WETS tables.
- Natural Resources Conservation Service. 1999. Hydric Soils List Tillamook County, Oregon: Detailed Soil Map Legend. Natural Resources Conservation Service. U.S. Department of Agriculture.
- Natural Resources Conservation Service. 2008. Web Soil Survey. Last updated: June 20, 2007. Available: <a href="http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx">http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</a> Accessed: May 12, 2014.
- Oregon Administrative Rules (OAR) 141-085. 2009. Implemented by the Oregon Department of State Lands, Salem Oregon http://arcweb.sos.state.or.us/pages/rules/OARS\_100/OAR\_141/141\_085.html
- U.S. Army Corps of Engineers, 1987 Wetlands Delineation Manual: http://el.erdc.usace.army.mil/wetlands/pdfs/wlman87.pdf
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland

  Delineation Manual: Western Mountains, Valleys and Coast Region, US. Army Engineer Research
  and Development Center, Vicksburg, Mississippi.
- USDA Natural Resources Conservation Service Oregon Hydric Soils List http://www.or.nrcs.usda.gov/technical/soil/hydric.html
- USDA Natural Resources Conservation Service. 2012. The PLANTS Database, National Plant Data Center, Baton Rouge, LA 70874-4490 USA PLANTS. <a href="http://plants.usda.gov/core/wetlandsearch.html">http://plants.usda.gov/core/wetlandsearch.html</a>

- U.S. Fish and Wildlife Service. 2008. Wetland Mapper. Last revised October 6, 2014. Available: <a href="http://wetlandsfws.er.usgs.gov/NWI/index.html">http://wetlandsfws.er.usgs.gov/NWI/index.html</a>. Accessed: December 2, 2014.
- U.S. Geological Survey (USGS). 1985. Tillamook, Oregon, 7.5 minute quadrangle, 1:24000.
- Watershed Sciences, Inc. 2009. LiDAR Remote Sensing Data: Department of Geology and Mineral Industries and Oregon Department of Forestry. May 27, 2009